## 1.main_program.cpp

```
#include <iostream>
#include <stdio.h>
#include <stdlib.h>
#include <string>
#include <fstream>
#include <vector>
#include <algorithm>
#include <sys/time.h>
#include "base64decoder.h"
#include "functions.h"

using namespace std;

vector<string> users;

int main()
{
int hourincounter = 0;
int houroutcounter = 0;
int dayincounter = 0;
int dayoutcounter = 0;
int date1;
int year1;
int hour1;
string month1;
string day1;
string zone1;
string daycheck;
while(1)
{
// Check for email updates
system("fetchmail");
string file;

// List all the files that contain emails
system("ls > files.txt");
ifstream input("files.txt", ifstream::in);
input>>file;

// While there are more files to take in, keep reading them in
while(file != "a.out")
{
   const char *c = file.c_str();
   ifstream stream(c, ifstream::in);
   string status;
   string code64;
   string email_body;
   string weekday;
   string day;
```

```
string month;
string year;
string time;
string monthnum;
string stat;
stream>>status;
while (status!="Date:")
   stream>>status;
stream>>weekday;  // Get the date
stream>>day;
stream>>month;
stream>>year;
stream>>time;
while (status!="Remick")
   stream>>status;
stream>>status;  // status now equals "entering" or "leaving"
if (status == "Entering")
   stat = "y";
else
   stat = "n";

stream>>code64;
while (code64!="base64")
   stream>>code64;
stream>>code64;

// Decode the base64 email
while (!stream.eof())
{
   email_body += base64_decode(code64);
   stream>>code64;
}

int i;
int newline_num=0;
string name;

// Remove the newline characters
for(i = 0; i < email_body.size(); i++)
{
   if(email_body[i]=='\n')
     newline_num++;
   if(newline_num==2)
     name+=email_body[i];
}

if (day.length() == 1)
   day = "0" + day;



if(month == "Jan")
```

```
      monthnum = "01";
   if(month == "Feb")
      monthnum = "02";
   if(month == "Mar")
      monthnum = "03";
   if(month == "Apr")
      monthnum = "04";
   if(month == "May")
      monthnum = "05";
   if(month == "Jun")
      monthnum = "06";
   if(month == "Jul")
      monthnum = "07";
   if(month == "Aug")
      monthnum = "08";
   if(month == "Sep")
      monthnum = "09";
   if(month == "Oct")
      monthnum = "10";
   if(month == "Nov")
      monthnum = "11";
   if(month == "Dec")
      monthnum = "12";

   int ind;
   string newname;

   // Remove the carriage return and newlines
   for (ind=0;ind<name.length();ind++)
   {
      if
(name[ind]!='\n'&&name[ind]!='\r'&&name[ind]!='\''&&name[ind]!='"')
        newname+=name[ind];
   }

   string command("");

   // Call daychange
   if (day != daycheck){
   command = "php /home/ndnfinfo/daychange.php '" + year + "-" +
monthnum + "-" + day + "'";
   system(command.c_str());
   }

   daycheck = day;
   command = "php /home/ndnfinfo/database_code.php '" + newname + "'
" + stat + " '" + year + "-" + monthnum + "-" + day + " " + time +
"'";
   // Call database_code
   system(command.c_str());

   string::iterator it;
```

```
   name.erase(name.begin());
   name.erase(name.end()-1);

   if (status == "Entering")
   {
      bool exists=false;
      for (int index=0; index<users.size(); index++)
      {
         if(users[index]==name)
            exists=true;
      }
      if(exists==false)
         users.push_back(name);
   }
   if (status == "Leaving")
   {
      for (int index=0; index<users.size(); index++)
      {
         if(users[index]==name)
            users.erase(users.begin()+index);
      }
   }

   stream.close();
   char temp[100];
   char temp2[100];
   sprintf(temp,"cp %s ./backup",file.c_str());
// RM FUNCTION!!!
   system((char *)temp);
   sprintf(temp2,"rm %s",file.c_str());
   system((char *)temp2);
   input>>file;
   string newhour1;
   int newdate;
   int newyear;
   string newmonth;
   string newday;
   string newzone;
   string file1;
   const char *d = file1.c_str();
   ifstream timefile(d, ifstream::in);
   ofstream outfile1;
   outfile1.open("day.csv", ios::app);
   ofstream outfile2;
   outfile2.open("hour.csv", ios::app);
   system("rm timedata.txt");
   system("date > timedata.txt");
   timefile.open("timedata.txt");
   timefile >> newday;
   timefile >> newmonth;
   timefile >> newdate;
   timefile >> newhour1;
```

```
   timefile >> newzone;
   timefile >> newyear;
   int newhour = atoi(newhour1.substr(0,2).c_str());

   if (hour1 != newhour)
   {
      outfile2 << newmonth << " " << newdate << " " << newyear << " "
<< newhour << ", " << hourincounter << ", " << houroutcounter <<
endl;
      hourincounter = 0;
      houroutcounter = 0;
      outfile2.close();
   }

   if (day1 != newday)
   {
      outfile1 << newmonth << " " << newdate << " " << newyear << ",
" << dayincounter << ", " << dayoutcounter << endl;
      dayincounter = 0;
      dayoutcounter = 0;
      outfile1.close();
   }

   if (status == "Entering")
   {
      hourincounter += 1;
      dayincounter += 1;
   }

      if (status == "Leaving")
   {
      houroutcounter += 1;
      dayoutcounter += 1;
   }

   hour1 = newhour;
   day1 = newday;
   zone1 = newzone;
   month1 = newmonth;
   year1 = newyear;


}

system("clear");
// Print users to the terminal
for (int index=0; index<users.size(); index++)
{
   cout << users[index]<<endl;
}

// Pause before executing again
```

```
pause(5);
}
return 0;
}
```

## 2.database_code.php

```
<?php
/*
This is the main code for automatically entering entries into the
database, and organizing them.  The code takes 3 argument: The user's
name ('John Doe'), a character variable ('y' indicates that the user is
entering, 'n' indicates that the user is leaving), and the timestamp of
the card swipe ('yyyy-MM-dd hh:mm:ss').
*/



//connect to mysql database ndnfinfo, and assign name, time, and status
variables
      mysql_connect("localhost","root","WafersD11");

//connect to db ndnfinfo
      mysql_select_db("ndnfinfo");
//Take in the name variable, and use mysql logic to get rid of quotes,
apostrophes, crosshatches, and hyphens.  The name is eventually tagged as
$name
      $name1 = $argv[1];
      $nametemp = mysql_query("SELECT REPLACE ('$name1', '-','')") or
die(mysql_error());
      $nametemp1 = mysql_fetch_array($nametemp);
      $name2 = $nametemp1[0];
      $nametemp2 = mysql_query("SELECT REPLACE ('$name2', '\'','')") or
die(mysql_error());
      $nametemp21 = mysql_fetch_array($nametemp2);
      $name3 = $nametemp21[0];
      $nametemp3 = mysql_query("SELECT REPLACE ('$name3', '#','')") or
die(mysql_error());
      $nametemp31 = mysql_fetch_array($nametemp3);
      $name4 = $nametemp31[0];
      $nametemp4 = mysql_query("SELECT REPLACE ('$name4', '\"','')") or
die(mysql_error());
      $nametemp41 = mysql_fetch_array($nametemp4);
      $name5 = $nametemp41[0];
      $nametemp5 = mysql_query("SELECT REPLACE ('$name5', '.','')") or
die(mysql_error());
      $nametemp51 = mysql_fetch_array($nametemp5);
      $name = $nametemp51[0];
// If entering, $stat = 'y'.  If leaving, $stat ='n'.
      $stat = $argv[2];
// $timein is a timestamp.  It is important that it stays in the form
'yyyy-mm-dd hh:mm:ss'.  Remember that $timein refers to the time that the
data came in, and it does not mean that the user is entering the
cleanroom at that time.
      $timein = $argv[3];
```

```
//$dateofscan is a date variable ('yyyy-mm-dd') that is used for
calculations later.  It is simply the date from the timestamp variable
$timein.
      $dateofscan1 = mysql_query("SELECT DATE('$timein')");
      $dateofscan2 = mysql_fetch_array($dateofscan1);
      $dateofscan = $dateofscan2[0];



//Since tables cannot have names with spaces those need to be removed for
a variable for a table name.  A second table, UserName_By_Day is also
used to store the total time that the user spent in the cleanroom each
day.

      $nametemp11 = mysql_query("SELECT REPLACE ('$name', ' ','')") or
die(mysql_error());
      $nametemp1111 = mysql_fetch_array($nametemp11);
      $nametable = $nametemp1111[0];
      $nametable2 = $nametable . "_By_Day";



//Get date of the last time this user scanned in.  It is stored as
$lastdate
      $lastdatedata = mysql_query("SELECT lastdate FROM users2 WHERE user
= '$name'") or die(mysql_error());
      $lastdatedata1 = mysql_fetch_array($lastdatedata);
      $lastdate = $lastdatedata1['lastdate'];



//see if user is already logged in.  If the user is not already
technically signed in, $data1 will be a null.
      $query1 = "SELECT * FROM users WHERE user = '$name'";
      $data = mysql_query($query1) or die(mysql_error());
      $data1 = mysql_fetch_array($data);


//see if user is already in database system.  If they are not, $data2
will be a null.
      $query2 = "SELECT * FROM users2 WHERE user = '$name'";
      $datatemp = mysql_query($query2) or die(mysql_error());
      $data2 = mysql_fetch_array($datatemp);

//If user is not already logged in, log them in.
      if ($data1 == "")
          {
         mysql_query("INSERT INTO users (user, tin) VALUES('$name',
'$timein' ) ") or die(mysql_error());
          }
```

```
//If user IS logged in already, delete that session, and add a new one
with the same user, and the new log in time.  The deleted session time is
still recorded, but it is done later.
      else
         {
         mysql_query("DELETE FROM users WHERE user = '$name'") or
die(mysql_error());
         mysql_query("INSERT INTO users (user, tin) VALUES('$name',
'$timein' ) ") or die(mysql_error());
         }


//If user is not already in database system, create the 2 user log
tables, and put them into the users list, a table called users2.
      if ($data2 == "")
         {
         mysql_query("CREATE TABLE $nametable (tin TIMESTAMP, tout
TIMESTAMP)") or die(mysql_error());
         mysql_query("CREATE TABLE $nametable2 (date DATE, time TIME)")
or die(mysql_error());
         mysql_query("INSERT INTO users2 (user, time, day, days, super)
VALUES('$name', '00:00:00', '00:00:00','0','YES')") or
die(mysql_error());
         }


// Find the entry where the user has not yet logged out. $data31 is the
timestamp of the beginning of the session that has not ended.  If no such
session exists, it is a null.
      $datatemp3 = mysql_query("SELECT tin FROM $nametable WHERE tout =
'0000-00-00 00:00:00'") or die(mysql_error());
      $data3 = mysql_fetch_array($datatemp3);
      $data31 = $data3['tin'];



//If there is an entry that has not yet been logged out, figure out the
time between when the session started and now.  If the date is different,
divide the session at midnight into 2 seperate day's times.  Note that
the date difference cannot be more than 1 or the session will be deleted,
and not recorded.
          if($data31 != "")
              {
      //$date11 is the date that they signed in
                $date1 = mysql_query("SELECT DATE('$data31')");
              $date111 = mysql_fetch_array($date1);
              $date11 = $date111[0];
      //$date22 is the date of the card swipe
                $date2 = mysql_query("SELECT DATE('$timein')");
              $date222 = mysql_fetch_array($date2);
              $date22 = $date222[0];
      //$timeadd2 is the time difference between the card swipe, and the
beginning of the unfinished session.  In other words, it is the total
time of the session.
```

```
            $timedata = mysql_query("SELECT
TIMEDIFF('$timein','$data31')") or die(mysql_error());
               $timeadd21 = mysql_fetch_array($timedata);
               $timeadd2 = $timeadd21[0];
      //The unfinished session is removed from the log table.
               mysql_query("DELETE FROM $nametable WHERE tin =
'$data31'") or die(mysql_error());
      //$oldtime is the total time that the user had spent in the
cleanroom before this session.
               $oldtimedata = mysql_query("SELECT time FROM users2 WHERE
user = '$name'") or die(mysql_error());
               $oldtime11 = mysql_fetch_array($oldtimedata);
               $oldtime = $oldtime11['time'];
      //$newtime is the sum of $oldtime and the latest session's time.
               $newtimedata = mysql_query("SELECT
ADDTIME('$timeadd2','$oldtime')") or die(mysql_error());
               $newtime3 = mysql_fetch_array($newtimedata);
             $newtime = $newtime3[0];
      //the time in the users2 table is updated to $newtime.
              mysql_query("UPDATE users2 SET time = '$newtime' WHERE user
= '$name'") or die(mysql_error());
      //If the dates of the beginning and ending of the session are the
same, then update the current day's total log time.
               if($date11 == $date22)
               {
            //$oldday is the day's total log time before the session
                  $olddaydata = mysql_query("SELECT day FROM users2 WHERE
user = '$name'") or die(mysql_error());
                        $oldday11 = mysql_fetch_array($olddaydata);
                  $oldday = $oldday11[0];
            //$newday9 is the sum of the session time and $oldday
                  $newdaydata = mysql_query("SELECT
ADDTIME('$timeadd2','$oldday')") or die(mysql_error());
                  $newday = mysql_fetch_array($newdaydata);
            $newday9 = $newday[0];
            //update the day's total log time to $newday9
                  mysql_query("UPDATE users2 SET day = '$newday9' WHERE
user = '$name'");
               }
      //If the dates are NOT equal, divide them at midnight, the time
from the first day gets added to the old day's total log time, and sent
to the UserName_By_Day table for that user for that day.  The part from
the second day becomes the new day's total log time.  Remember, it is
impossible for $date22 and $date11 to be different by more than 1, or the
session would have already been removed.
               if($date11 != $date22)
               {
            //$referencedate one day after the beginning of the session,
and $reference is a timestamp that is midnight on that day.  This is used
as a divider.
                $referencedate1 = mysql_query("SELECT INTERVAL 1 DAY +
'$date11'") or die (mysql_error());
            $referencedate2 = mysql_fetch_array($referencedate1);
            $referencedate = $referencedate2[0];
```

```
                $reference = $referencedate . " " . '00:00:00';
            //$timeaddyesterday is the time that needs to be added to
yesterday's total log time.
                $timeaddyesterday1 = mysql_query("SELECT
TIMEDIFF('$reference','$data31')");
                $timeaddyesterday3 =
mysql_fetch_array($timeaddyesterday1);
            $timeaddyesterday = $timeaddyesterday3[0];
            //$yesterday is yesterday's total log time before the
session.
                $yesterday1 = mysql_query("SELECT day FROM users2 WHERE
user = '$name'");
            $yesterday3 = mysql_fetch_array($yesterday1);
            $yesterday = $yesterday3[0];
            //Add the times together, and the sum is called
$totalyesterday
                $totalyesterday1 = mysql_query("SELECT
ADDTIME('$yesterday','$timeaddyesterday')");
                $totalyesterday3 = mysql_fetch_array($totalyesterday1);
            $totalyesterday = $totalyesterday3[0];
            //Insert this value into the user's _By_Day log table
                mysql_query("INSERT INTO $nametable2 (date,time) VALUES
('$date11','$totalyesterday')") or die(mysql_error());
            //$reference2 is the date of the end of the session at
midnight, and $todaytime is the amount of time from the session that
happened today.
            $reference2 = $date22 . " " . '00:00:00';
            $todaytime1 = mysql_query("SELECT
TIMEDIFF('$timein','$reference2')") or die(mysql_error());
            $todaytime3 = mysql_fetch_array($todaytime1);
            $todaytime = $todaytime3[0];
            //Set the current day's log time to $todaytime
            mysql_query("UPDATE users2 SET day = '$todaytime' WHERE user
= '$name'") or die(mysql_error());
            }

}



//If there is NOT a session that has not yet ended, and the newest scan
is on a different day than the last scan time, send their day's log time
to their _By_Day table.
              else{
      if($dateofscan != $lastdate && $lastdate != ''){
      $dayta1 = mysql_query("SELECT day FROM users2 WHERE user =
'$name'") or die(mysql_error());
      $dayta2 = mysql_fetch_array($dayta1);
      $dayta = $dayta2['day'];
      mysql_query("INSERT INTO $nametable2 (date,time) VALUES
('$lastdate','$dayta')") or die(mysql_error());
      mysql_query("UPDATE users2 SET day = '00:00:00' WHERE user =
'$name'") or die(mysql_error());
      }
```

```
}

//If they are going IN to the cleanroom, insert the timestamp into the
time in column of their log table.
          if($stat == 'y')
          {
          mysql_query("INSERT INTO $nametable (tin) VALUES ('$timein')")
or die(mysql_error());
          }
//Otherwise, insert the new timestamp into time out, and leave the old
one in time in.
          else
          {
          if($data31 != ""){
          mysql_query("INSERT INTO $nametable (tin,tout) VALUES
('$data31','$timein')") or die(mysql_error());
          mysql_query("DELETE FROM users WHERE user = '$name'") or
die(mysql_error());
          }
          }

//Update lastdate so it can be seen next scan.
mysql_query("UPDATE users2 SET lastdate = '$dateofscan' WHERE user =
'$name'");

/*
There is a maximum value of ~830 hours for total time, so we are
including a day counter to supplement the time counter, so people's log
times don't max out.
*/
$oldtimedata = mysql_query("SELECT time FROM users2 WHERE user =
'$name'") or die(mysql_error());
$oldtime11 = mysql_fetch_array($oldtimedata);
$oldtime = $oldtime11['time'];
$oldtimehoursdata = mysql_query("SELECT HOUR('$oldtime')") or
die(mysql_error());
$oldtimehours1 = mysql_fetch_array($oldtimehoursdata);
$oldtimehours = $oldtimehours1[0];
//While $oldtime is greater than 24 hours, subtract 24 hours and add one
to days.
while($oldtimehours > 23){
      mysql_query("UPDATE users2 SET days = days + 1 WHERE user =
'$name'") or die(mysql_error());
      mysql_query("UPDATE users2 SET time = TIMEDIFF(time,'24:00:00')
WHERE user = '$name'") or die(mysql_error());
      $oldtimedata = mysql_query("SELECT time FROM users2 WHERE user =
'$name'") or die(mysql_error());
      $oldtime11 = mysql_fetch_array($oldtimedata);
      $oldtime = $oldtime11['time'];
      $oldtimehoursdata = mysql_query("SELECT HOUR('$oldtime')") or
die(mysql_error());
      $oldtimehours1 = mysql_fetch_array($oldtimehoursdata);
      $oldtimehours = $oldtimehours1[0];
}
```

```
//update the total column
$daysdata1 = mysql_query("SELECT days from users2 where user = '$name'")
or die(mysql_error());
$daysdata = mysql_fetch_array($daysdata1);
$days = $daysdata[0];
$timedata1 = mysql_query("SELECT time FROM users2 where user = '$name'")
or die(mysql_error());
$timedata = mysql_fetch_array($timedata1) or die(mysql_error());
$time = $timedata[0];
$total = $days . ":" . $time;
mysql_query("UPDATE users2 SET total = '$total' where user = '$name'") or
die(mysql_error());



//close mysql
      mysql_close();
?>
```

## 3.databasereset.php

```
<?php
            mysql_connect("localhost","root","WafersD11");


            mysql_select_db("ndnfinfo");

            mysql_query("drop database ndnfinfo");
      mysql_query("create database ndnfinfo");
      mysql_select_db("ndnfinfo");
      mysql_query("create table Groups (Name VARCHAR(40),owner
VARCHAR(40))");
      mysql_query("create table coral (Machine VARCHAR(40), User
VARCHAR(40), Time_On TIMESTAMP)");
      mysql_query("create table users (user varchar(40),tin TIMESTAMP)");
      mysql_query("create table users2 (user VARCHAR(40), time TIME, day
TIME, lastdate DATE, days INT, super VARCHAR(3))");
      mysql_query("update table users2 set super = 'NO'");
      mysql_query("create table logins (user VARCHAR(40), password
varchar(40))");

mysql_close();

?>
```

## 4.daychange.php

```
<?php
/*This code is run the first time a scan is detected after every
midnight.  If a session has gone on longer than 24 hours at this point,
it will be removed.  Note that the user will still be billed for the
extra time here.  The reason they are removed is that we know they are
not in there, so in case of emergency, the accurate number of users is
displayed.  If you are implementing this system, you might consider
adding a script that notifies someone automatically if their name is
removed.*/

//connect to the database
           mysql_connect("localhost","root","WafersD11");


           mysql_select_db("ndnfinfo");
//The argument that must be passed is the current date in the format
'yyyy-mm-dd'.  It is set to equal $today.
     $today = $argv[1];
//Check on all current sessions. $user is the array of users, and $Timein
is the array of log-in times.
     $data1 = mysql_query("SELECT * FROM users");
     while ($arr = mysql_fetch_array($data1)){
       $user = $arr['user'];
     $Timein = $arr['tin'];
//Create a variable for the user's log table - $nametable
     $nametemp11 = mysql_query("SELECT REPLACE ('$user', ' ','')") or
die(mysql_error());
        $nametemp1111 = mysql_fetch_array($nametemp11);
        $nametable = $nametemp1111[0];
//$date is the date that is extracted from each login timestamp.
        $date2 = mysql_query("SELECT DATE('$Timein')");
     $date21 = mysql_fetch_array($date2);
     $date = $date21[0];
//If the difference in days between the current date and the login date
is 2 or more, the session is deleted.  As is, no records will be stored
of the expired session.  That can be changed since it is only a matter of
preference.
     $datediff1 = mysql_query("SELECT DATEDIFF('$today','$date')");
     $datediff2 = mysql_fetch_array($datediff1);
     $datediff = $datediff2[0];
     if($datediff >= 2){
     mysql_query("DELETE FROM users WHERE user = '$user'");
     mysql_query("DELETE FROM $nametable WHERE tin = '$Timein'");
     }
     }
     mysql_close();

?>
```

## 5.index.php

```
<html>
<head>
<title>Display</title>
<script language="javascript">
function reloadIframes()
      {
              frm=document.getElementsByName("current")[0];//we get the
iframe object
              frm.src=frm.src;
              frm=document.getElementsByName("super")[0];
              frm.src=frm.src;
              setTimeout("reloadIframes()",25000);  // Set refresh rate in
mSec here

      }
</script>
</head>

<body onload="reloadIframes()">
<table border="1" width=100% height=screen.height bgcolor="#001b35">
<tbody>

<html>
<body>

<table border="1" width="100%" height="100%">
<tr>
<th colspan=2 align="center" bgcolor="#001B35" ><font color="#DED5AE"
face="arial" size="25px"><strong>
Welcome to the University of Notre Dame Nanofabrication Facility!
</strong></font></th>
</tr>

<tr>
    <th width="41%" height="25" align="center"
bgcolor="#DED5AE"><font color="#001B35" face="arial"
size="20px"><strong>Current Lab
Users</strong></font></th>
    <th width="41%" height="25" align="center"
bgcolor="#DED5AE"><font color="#001B35" face="arial"
size="20px"><strong>Super
Users For the Week</strong></font></th>
</tr>

<tr>
    <td width="41%" rowspan="3" align="center"
bgcolor="#001B35"><div align="center"><iframe name = "current"
style="WIDTH: 100%; HEIGHT: 800px"
src="UsersDisplay.php" align="center" scrolling="no"
marginwidth="0" marginheight="0" frameborder="0" vspace="0"
hspace="0"></iframe></div></td>
```

```
    <td width="41%"height="204" align="center" bgcolor="#001B35"><iframe
name= "super" style="WIDTH: 100%; HEIGHT: 400px" src="Superusers.php"
scrolling="no"
marginwidth="0" marginheight="0" frameborder="0" vspace="0"
hspace="0"></iframe></td>
</tr>

<tr>
    <th width="41%" height="25" align="center"
bgcolor="#DED5AE"><font color="#001B35" face="arial"
size="25px"><strong>Usage
Graph</strong></font></th>
</tr>

<tr>
    <td height="204" align="center" bgcolor="#001B35">
<iframe style="WIDTH: 100%; HEIGHT: 400px"
- Show quoted text -
src="http://ndnfinfo.ee.nd.edu/graphs/currentUsers.htm" scrolling="no"
marginwidth="0" marginheight="0" frameborder="0" vspace="0"
hspace="0"></iframe>
</td>
</tr>

<tr>
    <th colspan="2" align="center" bgcolor="#DED5AE">

<img src="http://ndnfinfo.ee.nd.edu/500px-NotreDameSeal.svg.png"
width="54" height="54" alt=""
longdesc="http://ndnfinfo.ee.nd.edu/500px-NotreDameSeal.svg.png">

<img src="http://ndnfinfo.ee.nd.edu/UniversityBanner.png" width="260"
height="55" alt=""
longdesc="http://ndnfinfo.ee.nd.edu/UniversityBanner.png">

<img src="http://ndnfinfo.ee.nd.edu/ndnfBanner.png" width="260"
height="55" alt=""
longdesc="http://ndnfinfo.ee.nd.edu/ndnfBanner.png">

<img src="http://ndnfinfo.ee.nd.edu/ndnanoBanner.png" width="260"
height="55" alt=""
longdesc="http://ndnfinfo.ee.nd.edu/ndnanoBanner.png">

<img src="http://ndnfinfo.ee.nd.edu/MindBanner.png" width="260"
height="55" alt=""
longdesc="http://ndnfinfo.ee.nd.edu/MindBanner.png">
</th>

</tr>

<tr>

   <td align="left" bgcolor="#001B35"><font color="#DED5AE"
face="arial"><strong>
```

Sponsored by the Notre Dame Electrical Engineering Department
</font></td>

   <td align="right" bgcolor="#001B35"><font color="#DED5AE"
face="arial">

Senior Design Project 2011: Rob Maurer, John Plunkett, Barbara Raynal,
& Matt Schueler</font></td>

</tr>

</table>

</body>
</html>

## 6.UsersDisplay.php

```
<?php
      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      $q=mysql_query("SELECT * FROM users");

      while($e=mysql_fetch_assoc($q))
      {
              $name[]=$e['user'];
              $time[]=$e['tin'];
      }
echo'<font face="arial" color="#DED5AE">'; //<marquee direction="up"
scrollamount="1" loop=true height="100%">';
echo '<div align="center">';
echo '<table id="Top Users">';

echo '</tr>', '</thead>';
echo '<tbody>';
echo '<div align="center">';
      $i=0;

      for ($i; $i<sizeof($name); $i++)
      {
          echo '<tr>';
        echo '<td>', '<font size="15px" color="#DED5AE">','<div
align="center">', $name[$i], '</div>','</font>','</td>';
          echo '</tr>';

      }
echo '</div>';
echo '</tbody>', '</table>','</div>';
//echo'</marquee></font>';
echo '</font>';

    mysql_close();
?>
```

## 7.Superusers.php

```
<?php

$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";

$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select
database");

$result = mysql_query("SELECT lastdate FROM users2 ORDER BY
lastdate DESC") or die ("Can't select table");
$data = mysql_fetch_array($result);
$lastdate = $data['lastdate'];

$result2 = mysql_query("SELECT user FROM users2 where super =
'YES'") or die (mysql_error());
while($resultdata = mysql_fetch_assoc($result2))
      $users[] = $resultdata['user'];

for($i=0;$i<count($users);$i++){
      $result3 = mysql_query("SELECT day FROM users2 WHERE user =
'$users[$i]' and lastdate = '$lastdate'") or die(mysql_error());
      $data3 = mysql_fetch_array($result3);
      $userstime[$i] = $data3['day'];
      if ($userstime[$i] == ''){
      $userstime[$i] = '00:00:00';
      }
      $temp3 = $users[$i];
      $nametemp = mysql_query("SELECT REPLACE ('$temp3',' ','')")
or die(mysql_error());
        $nametemp1 = mysql_fetch_array($nametemp);
        $nametable = $nametemp1[0];
        $nametable2 = $nametable . "_By_Day";
      for($j=1;$j<7;$j++){
            $result4 = mysql_query("SELECT time from $nametable2
where date = date_sub('$lastdate',interval $j day)") or
die(mysql_error());
            $data4 = mysql_fetch_array($result4);
            $temp = $userstime[$i];
            $temp2 = $data4['time'];
            if($temp2 == ''){
            $temp2 = '00:00:00';
            }
            $result5 = mysql_query("SELECT
ADDTIME('$temp','$temp2')") or die(mysql_error());
            $data5 = mysql_fetch_array($result5);
            $userstime[$i] = $data5[0];
}
```

```
}

array_multisort($userstime, SORT_DESC,$users);
echo '<div align="center">';
echo '<font color="#DED5AE" face="arial" size="15px"">';

for ($k = 0;$k<5;$k++){
echo $users[$k] ;
echo '<br>';

}
echo '</font>';
echo '</div>';
?>
```

# Site

## 8.enterSite.php

```
<html>
<!--This file creates the login site for the graphing central-->
      <head>

            <title>NDNFinfo</title>
                     <script type=text/JavaScript>
                   //This functions reloads iframes every minute to make
sure information is updated
                       function reloadIframes()
                       {
                          frm=document.getElementsByName("users")[0];//we
get the iframe object
                          frm.src=frm.src;
                          setTimeout("reloadIframes()",60000);
                       }
                      </script>
            <meta http-equiv="Content-Type" content="text/html;
charset=UTF-8" />
            <!-- main.css must be included to take care of the
formatting-->
                  <link rel="stylesheet" type="text/css" href="main.css"/>


      </head>
      <body onload="reloadIframes()">

<!--the following lines create the dropdown menu-->
<ul id="Menu" >
<!-- main.php is the faile for the main part of the graphing central-->
<li><a href="main.php" title="Enter" class="selected" >Login</a></li>
<!--check NetID and password with htaccess file on webfile and if correct
display the contents of createAccount.php-->
<li><a href="http://www.nd.edu/~ndnfinfo" title="Create Account"
target="main">Create Account</a></li>
<!--Users.php contains the names of all users currently working in the
cleanroom-->
<li><a href="Users1.php" title="Current Users" target="main">Current
Users</a></li>
</ul>
      </body>
<br></br>
<br></br>
<br></br>
<br></br>
<br></br>
<p> In order to create an account, you need to be an authorized cleanroom
user.  We will ask you to login with your netID and password.  Thank
you!</p>
<div align="center"><iframe name="users" class="border" src="Users.php"
width="100%" height="700"
```

```
frameborder="0?" scrolling="no" align ="left" name="main"
align="middle"></iframe></div>
</html>
```

## 9.createAccount.php

```
<html>
<body>
<!-- all the inputs from the user will be sent to saveAccount.php-->
<form action="saveAccount.php" method = "post">
<?php
//ask for username and password for their website account
echo 'Please enter a username and password to create your
account','<br>';
echo 'username:','<input type="text" name="username">','<br>';
echo 'password','<input type="password" name="password">','<br>';
echo '<input type="submit">';

?>
</body>
</html>
```

## 10. saveAccount.php

```
<?php
//get the username and password from createAccount.php
$username = $_POST['username'];
$password = $_POST['password'];

$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//check to see if an account with the desired username already exists
$query1 = mysql_query("SELECT user from logins where user = '$username'")
or die (mysql_error());
$userdata = mysql_fetch_array($query1);

// If username already exists, tell them to make a new one.
if ($userdata != ""){
echo 'Sorry, the username you chose already exists, please choose a
different one.','<br>';
echo '<a href="createAccount.php">Try again</a>';
}
// if not then create a table for this user
else{
mysql_query("insert into logins (user, password) values
('$username','$password')");
echo 'Thank you! Your account has been created.  Click the login tab to
access it.';
```

```
}

?>
```

## 11. main.php

```
<html>
<!--main file for the graphing central-->
      <head>
<!-- ask for username and password-->
    <?php if (!isset($_SERVER['PHP_AUTH_USER'])) {
    header('WWW-Authenticate: Basic realm="NDNFinfo"');
    header('HTTP/1.0 401 Unauthorized');
    echo '<meta HTTP-EQUIV="REFRESH" content="0;
url=http://ndnfinfo.ee.nd.edu/site/enterSite.php">';
    exit;
  }
// if a username and password were entered
else {
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";

//connect to to mysql database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");

//obtain the username and password entered
$User = $_SERVER['PHP_AUTH_USER'];
$password = $_SERVER['PHP_AUTH_PW'];

//check the database to see if the username and passwords are correct
$result = mysql_query("SELECT password FROM logins WHERE user='$User'")
or die ("Can't select table");
$e = mysql_fetch_assoc($result);
$checkpasswd=$e['password'];

// if username and password are correct then continue to show the
contents of the site
if ($checkpasswd==$_SERVER['PHP_AUTH_PW']){



           echo '<title>', 'NDNFinfo', '</title>';
           echo '<meta http-equiv="Content-Type" content="text/html;
charset=UTF-8" />';
           //include main.css for formatting
                echo '<link rel="stylesheet" type="text/css"
href="main.css"/>';


     echo '</head>', '<body>';
```

```
// dropdown menu
echo '<ul id="Menu" >';
echo '<li>', '<a href="#" title="Groups" class="selected">', 'Groups',
'</a>';
echo '<ul>';


// select all the groups that the logged in user has created and display
them on the drop down menu under groups
$result = mysql_query("SELECT name FROM Groups WHERE owner='$User'") or
die ("Can't select table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['name'];

sort($output);


$size = sizeof($output);
$i=1;


//This loop displays the groups on the dropdown menu and if a group is
selected it sends the name of the group as a variable to groups.php which
asks for input about the graphs to display for the chosen group

foreach ($output as $value){
    echo '<li>', '<a href="../graphs/groups.php?group=', "{$value}", '"',
'title="Group" target="main">';
    echo $value, '</a></li>';}

mysql_close();

     echo '</ul>', '</li>';
echo '<li>', '<a href="#" title="Edit Group">', 'Edit Group', '</a>';
     echo '<ul>';
               //When edit/create is selected the contents of
createNew.php are displayed in the iframe
          echo '<li>', '<a href="createNew.php" title="Edit"
target="main">', 'Edit/Create', '</a>', '<li>';
               //when delete croup is created the contents of
delete.php are displayed on the iframe
          echo '<li>', '<a href= "delete.php" title="Edit"
target="main">', 'Delete Group', '</a>', '<li>';
     echo '</ul>', '</li>';
echo '<li>', '<a href="#" title="Graphs">', 'Graphs', '</a>';
     echo '<ul>';
          echo '<li>', '<a href="#" title="Machines" >', 'Machines',
'</a>';
               echo '<ul>';
//when the option to graph machines is selected the contents of
machine.php in var/www/graphs/machine.php are displayed
                    echo '<li>', '<a href="../graphs/machine.php",
title="Machine" target="main">', 'Machine', '</a>', '</li>';
```

```
//when the option to graph machines is selected the contents of
byUser.php in var/www/graphs/byUser.php are displayed
                        echo '<li>', '<a href="../graphs/byUser.php",
title="By User" target="main">', 'By User', '</a>', '</li>';
                  echo '</ul>', '</li>';
      echo '</ul>', '</li>';

//when top users is selected the contents of allTime.php are displayed in
the iframe
echo '<li>', '<a href="allTime.php" title="Top Users" target = "main">',
'Top Users', '</a>', '</li>';


echo '<li>', '<a href="#" title="Machines">', 'Machines', '</a>';
      echo '<ul>';
            echo '<li>', '<a href="#" title="Reservations">',
'Reservations', '</a>';
            echo '<ul>';
                  //access psql database to obtain the names of all the
machines
                  $dbconn = pg_connect("host=anemone.nano.nd.edu
dbname=coral user=display password=gOiRiSh") or die('Could not connect: '
. pg_last_error());
                  $query = 'select distinct item from resmgr.reservation';
                  $querydata = pg_query($dbconn, "$query");
                  while($e=pg_fetch_assoc($querydata))
                  {
                        $output2[]=$e['item'];
                  } sort($output2);
                  //Display the names of all machines under reservations
on the dropdown menu
                  foreach ($output2 as $value){
                        //if a machine is clicked the name of the machine
is sent as a variable to showRes.php
                        echo '<li>', '<a
href="showRes.php?machine=',"{$value}",'"','title="mach" target="main">';
                        echo $value, '</a></li>';}
pg_close($dbconn);
            echo '</ul>','</li>';

            //when machines down is pressed the contents of
machine_statuses.php are displayed in the iframe
            echo '<li>', '<a href="machine_statuses.php" title="Machines
Down" target="main">', 'Machines Down', '</a>', '</li>';
      echo '</ul>', '</li>';
//when Current Users is pressed the contents of Users.php are displayed
in the iframe
echo '<li>', '<a href = "Users1.php" title = "Current Users"
target="main">', 'Current Users', '</a>', '</li>';
//when help is selected the contents of help.php are diplayed on the
iframe
echo '<li>', '<a href="help.php" title="Help"
target="main">','Help','</a>';
echo '</li>';
```

```
echo '</ul>';

      echo '</body>';
echo '<br>', '</br>', '<br>', '</br>', '<br>', '</br>', '<br>', '</br>',
'<br>', '</br>';
// the iframe is the window that allows the information displayed to
change based on what the user wants to see
echo '<div align="center">', '<iframe class="border" src="#" width="100%"
height="700"
frameborder="0?" scrolling="yes" align ="left" name="main"
align="middle">', '</iframe>', '</div>';

}

//if the username and password were incorrect then do no enter site
else echo 'Sorry, incorrect username and password.  Close the browser and
try again.';}

?>
</html>
```

## 12. groups.php

```
<?php
//This file prepares csv file for pie chart as well as sends information
to Custom_Plots.php in case scatter plot was chosen
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//get current day
$query = mysql_query("SELECT CURDATE()");
$day1 = mysql_fetch_array($query);
//get seven days ago
$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");
$day7 = mysql_fetch_array($query);
//the default values for begin date and end date of the plot are for the
past week but if the user changes them by inputing different numbers they
will change
$bdate = $day7[0];
$edate = $day1[0];
//get the name of group from main.php
$group  = $_GET['group'];
//all inputs will be senf to Custom_Plots.php as variables as well as the
name of the group selected
echo '<form action="Custom_Plots.php?group=', "{$group}", '"', '" method
= "post">';
echo 'Please choose the type of graph you would like to see.  The pie
chart displays information for the past seven days.  For the scatter plot
choose a period up to two weeks.', '<br>';
echo 'Type of chart (pie chart/scatter):', '<input type = "text" name =
"chart"/>', '<br>';
echo 'If you chose the scatter plot please choose begin date and end date
for the period of usage you wish to see (yyyy-mm-dd).','<br>','Begin
date:','<input type="text" name="bdate"
value="',"{$bdate}",'"','/>','<br>','End date:','<input type="text"
name="edate" value = "',"{$edate}",'"','/>','<br>';

            echo '<input  type="submit"/>';
            echo '</form>';


//prepare csv file for the pie chart
$result = mysql_query("SELECT user FROM $group") or die ("Can't select
table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['user'];

$query = mysql_query("SELECT CURDATE()");
```

```
$day1 = mysql_fetch_array($query);
$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");
$day7 = mysql_fetch_array($query);
// appropriate values will be writen in groupPieChart.csv
$myFile = "groupPieChart.csv";
$fh = fopen($myFile, 'w') or die("can't open file");
fwrite($fh, "Group Member,Time\n");

foreach ($output as $value){
      $name = str_replace(" ","",$value);
      $name = $name.'_By_Day';
//get times worked during the dates selected for each user of the group
from the database
      $result1 = mysql_query("SELECT SUM(TIME_TO_SEC(time)) FROM $name
WHERE date>='$day7[0]' and date<='$day1[0]'") or die ("Can't select
table");
      $resul = mysql_fetch_array($result1);

      $output1[]=$resul[0];

}

$sum=0;
$i=0;
foreach ($output1 as $value)
   $sum += $value;
foreach($output1 as $value){
$percentage = $value*100/$sum;
//write usernames and percentages in csv file
fwrite($fh, "$output[$i]");
fwrite($fh, ",");
fwrite($fh, "$percentage");
fwrite($fh, "\n");
$i++;
}
fclose($fh);
?>
```

## 13. Custom_Plots.php

```
<?php
//this file creates the csv file to create the scatter plot and based ont
he user's input shows the correct graph
//get the name of group, begin date, end date, and type of graph from
groups.php
$group = $_GET['group'];
$bdate = $_POST['bdate'];
$edate = $_POST['edate'];
$chart = $_POST['chart'];
//show appropriate graph depending on input
if ($chart == 'scatter'){
$site = 'http://ndnfinfo.ee.nd.edu/graphs/Custom_plot.htm';}
else $site = 'http://ndnfinfo.ee.nd.edu/graphs/groupPie.htm';
//connect to database
      mysql_connect("localhost","root","WafersD11");
      mysql_select_db("ndnfinfo");
      //prepare csv file for scatter plot
      $file = "Custom_plot.csv";
      $fh = fopen($file, 'w') or die("can't open file");
      fwrite($fh, "Categories,Users\n");

//get names of users in group
      $groupmemberdata = mysql_query("SELECT user FROM $group");
      while ($i=mysql_fetch_assoc($groupmemberdata)){
      $user[]=$i['user'];
      }
      $size = count($user);
//ad _By_Day after all names to be able to call their tables in the
database
      for($f=0;$f<$size;$f++){
      $nametemp11[$f] = mysql_query("SELECT REPLACE ('$user[$f]', '
','')") or die(mysql_error());
        $nametemp = mysql_fetch_array($nametemp11[$f]);
        $nametable[$f] = $nametemp[0];
        $nametable2[$f] = $nametable[$f] . "_By_Day";

      }

      $daydiff1 = mysql_query("select datediff('$edate','$bdate')") or
die(mysql_error());
      $daydiff2 = mysql_fetch_array($daydiff1);
      $daydiff = $daydiff2[0];

        for($n=0;$n<$daydiff;$n++){
           $datetemp = mysql_query("select date_add('$bdate',interval $n
day)") or die(mysql_error());
         $datetemp1 = mysql_fetch_array($datetemp);
         $date = $datetemp1[0];
           fwrite($fh,"$date,");

        }
```

```
//write to csv file
        fwrite($fh,"\n");
      for($p=0;$p<$size;$p++){
      for($n=0;$n<$daydiff;$n++){
            $datetemp = mysql_query("select date_add('$bdate',interval $n
day)") or die(mysql_error());
            $datetemp1 = mysql_fetch_array($datetemp);
            $date = $datetemp1[0];
            $datatemp = mysql_query("select time from $nametable2[$p]
where date = '$date'") or die(mysql_error());
            $datatemp1 = mysql_fetch_array($datatemp);
            $data = $datatemp1[0];
            if ($data == ''){
               $data = '00:00:00';
               }
                 if ($n==0)
                 {
                    fwrite($fh,"$user[$p],");
            }
            fwrite($fh,"$data,");
            }
          if ($p!=($size-1))
          fwrite($fh,"\n");
      }
//go to correct graph
echo '<meta HTTP-EQUIV="REFRESH" content="0; url=', "{$site}", '">';


?>
```

## 14. Custom_plot.htm

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>Machines Example</title>
           <!-- 1. Add these JavaScript inclusions in the head of your
page -->
           <script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></s
cript>
           <script type="text/javascript"
src="./js/highcharts.js"></script>

           <!-- 1a) Optional: add a theme file -->

             <script type="text/javascript"
src="../js/themes/gray.js"></script>


           <!-- 1b) Optional: the exporting module -->
           <script type="text/javascript"
src="./js/modules/exporting.js"></script>


           <!-- 2. Add the JavaScript to initialize the chart on
document ready -->
           <script type="text/javascript">

var options = {
    chart: {
        renderTo: 'container',
        defaultSeriesType: 'line'
    },
    title: {
        text: 'Lab Usage by Person'
    },
    xAxis: {
        title: {
           text: 'Time'
      },
        categories: []
    },
    yAxis: {
        title: {
            text: 'hours'
        }

    },
```

```
    series: []
};

$.get('Custom_plot.csv', function(data) {
    // Split the lines
    var lines = data.split('\n');
                var series = {
                data: []
            };

    var dates = new Array();

    // Iterate over the lines and add categories or series
    $.each(lines, function(lineNo, line) {
        var items = line.split(',');

        if (lineNo == 0) {
         //   if it is the first line, do nothing
        }

        // The second line contains the dates, which are to be included
on the x-axis
        else if (lineNo == 1) {
            $.each(items, function(itemNo, item) {
                options.xAxis.categories.push(item);
            });
        }

        // the rest of the lines contain data with the user name in the
first position
        else {
            var series = {
                data: []
            };
            $.each(items, function(itemNo, item) {
                if (itemNo == 0) {
                    series.name = item;
                } else {
                    series.data.push(parseFloat(item));
                }
            });

           // Push this series onto the chart
           options.series.push(series);

        }

    });

    // Create the chart
    var chart = new Highcharts.Chart(options);
});

</script>
```

```
</head>
      <body>

            <!-- 3. Add the container -->
            <div id="container" style="width: 800px; height: 400px;
margin: 0 auto"></div>


      </body>
</html>
```

## 15. groupPie.htm

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
      <head>
            <meta http-equiv="Content-Type" content="text/html;
charset=utf-8">
            <title>Lab Usage by Group Member</title>


            <!-- 1. Add these JavaScript inclusions in the head of your
page -->
            <script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></s
cript>
            <script type="text/javascript"
src="./js/highcharts.js"></script>

            <!-- 1a) Optional: add a theme file -->
            <!--
                  <script type="text/javascript"
src="../js/themes/gray.js"></script>
            -->

            <!-- 1b) Optional: the exporting module -->
            <script type="text/javascript"
src="./js/modules/exporting.js"></script>


            <!-- 2. Add the JavaScript to initialize the chart on
document ready -->
            <script type="text/javascript">

var options = {
    chart: {
      renderTo: 'container',
      plotBackgroundColor: null,
      plotBorderWidth: null,
      plotShadow: false
    },
    title: {
        text: 'Machine Usage by User'
    },
      tooltip: {
      formatter: function() {
            return '<b>'+ this.point.name +'</b>: '+ this.y +' %';
            }
      },
      plotOptions: {
      pie: {
      allowPointSelect: true,
      cursor: 'pointer',
```

```
      dataLabels: {
            enabled: true,
            color: '#000000',
            connectorColor: '#000000',
            formatter: function() {
            return '<b>'+ this.point.name +'</b>: '+ this.y +' %';
            }
      }
      }
},
    series: []
};

   $.get('groupPieChart.csv', function(data) {
     var user;
     var lines = data.split('\n');
     var series = {
          data: []
     };
     series.type = 'pie';
    // Iterate over the lines and add categories or series
    $.each(lines, function(lineNo, line) {
        var items = line.split(',');

        // header line containes categories
        if (lineNo == 0) {
       //     $.each(items, function(itemNo, item) {
        //        if (itemNo > 0) options.plotOptions.push(item);
        //    });
        }
        // the rest of the lines contain data with their name in the
first position
        else {

            $.each(items, function(itemNo, item) {
                if (itemNo == 0) {
                    user = item;
                } else {
                    series.data.push({y:parseFloat(item),name:user});
                }
            });



        }

    });
                    options.series.push(series);
    // Create the chart
    var chart = new Highcharts.Chart(options);

});
           </script>
```

```
      </head>
      <body>

            <!-- 3. Add the container -->
            <div id="container" style="width: 800px; height: 400px;
margin: 0 auto"></div>


      </body>
</html>
```

## 16. createNew.php

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-US" xml:lang="en-US" xmlns="http://www.w3.org/1999/xhtml">

 <head>
  <title>PHP Test</title>
<!--include css files for formatting-->
<link rel="stylesheet" type="text/css" href="createNew.css"/>
<link rel="stylesheet" type="text/css" href="stdtheme.css"/>

 </head>
 <body>

<h1><span class="color_h1">Choose lab users in your group</span></h1>
<hr/>
<p class="intro"></p>
<table id="users">
<tr>
      <th>Lab Users</th>
</tr>



 <?php

$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//get names of all users and sort them
$result = mysql_query("SELECT user FROM users2") or die ("Can't select
table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['user'];

sort($output);

$size = sizeof($output);

$i=0;
$k=0;
$l=0;
$times = floor($size/3);

$residue = $size%3;
```

```
//display all users in a table with checkboxes
echo '<form action="createGroup.php" method = "post">';
  echo '<tr>';
for($l;$l<$times;$l++){

      for($k=0;$k<3;$k++)
        {
            echo '<td>', '<input type = "checkbox" class="styled" name =
"checkbox[]" value=',"{$i}",'>';
            echo $output[$i];
            echo '</td>';
            $i=$i+1;

        }
      echo '</tr>';
        if (($l+1)%2 !=0){echo '<tr class="alt">';}
      else echo '<tr>';
}
$l=0;
echo '<tr>';
for ($l;$l<$residue;$l++){

      echo '<td>', '<input type = "checkbox" class="styled" name =
"checkbox[]" value=',"{$i}",'>';
      echo $output[$i];
      echo '</td>';
      $i=$i+1;}
echo '</tr>';
//take name of group and send it to createGroup.php allong with the users
chosen
echo '</table>','<hr />';
echo 'Name of group:','<input type="text" name="groupName"/>';
echo '<input type="submit"/>';
echo '</form>';

    mysql_close();



       ?>


 </body>
</html>
```

## 17. createGroup.php

```
<html>
<body>

<?php
//this file creates a table for each group and makes sure existing groups
do not get overwritten
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");

$result = mysql_query("SELECT user FROM users2") or die ("Can't select
table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['user'];

sort($output);
//get all names selected and group name chosen from createNew.php
$checked= $_POST['checkbox'] ;
$groupName= $_POST['groupName'];
$arr[0]=$groupName;
$m=1;


foreach ($checked as $key=>$value){
      $arr[$m]=$output[$value];
      $m=$m+1;
}

      //check to see if the group already exists
        $query = "SHOW TABLES LIKE '$arr[0]'";
        $data = mysql_query($query) or die(mysql_error());
      $data1 = mysql_fetch_array($data);
        $size = count($arr);
        $start = 1;

      //if it doesn't then create it
        if($data1 == ""){
            //insert group and owner to table Groups
            $User = $_SERVER['PHP_AUTH_USER'];
                mysql_query("INSERT INTO Groups (Name,owner) VALUES
('$arr[0]' ,'$User')");
            mysql_query("CREATE TABLE $arr[0] (user VARCHAR(30))");
                $start = 1;
                for ($start;$start < $size;$start++)
```

```
                mysql_query("INSERT INTO $arr[0] VALUES
('$arr[$start]')");
           echo 'Congratulations! Your group has been created.';
                }
      // if group already exists, check to see if it belongs to the user
signed in
        else{
                $checkGroup=mysql_query("SELECT owner FROM Groups WHERE
Name = '$groupName'");
           $User = $_SERVER['PHP_AUTH_USER'];
           if ($User == $checkGroup){

                //if it does belong to the user tell them Group has
already been created, do they want to overwrite?
           echo '<form action="edit.php" method = "post">';
           echo 'This group already exists, do you wish to overwrite?
enter y/n:','<input type="text" name="overwrite"/>';
           echo '<input type="submit"/>';
           echo '</form>';}
           else {
           //if it does not belong to the user ask them to choose a
different name
           echo 'Name already taken. Please select a different name for
your group';}

           }



?>

</body>
</html>
```

## 18. edit.php

```
<?php
//this file edits an existing group
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//get input from createGroup.php.  did they want to overwrite?(y/n)
$over= $_POST['overwrite'];


                //If yes, $over = y.  If no, $over = n.
                if($over == 'y'){
           mysql_query("DROP TABLE $arr[0]");
           mysql_query("INSERT INTO Groups (Name) VALUES ('$arr[0]')");
           mysql_query("CREATE TABLE $arr[0] (user VARCHAR(30))");
                $start = 1;
                for ($start;$start < $size;$start++)
                 mysql_query("INSERT INTO $arr[0] VALUES
('$arr[$start]')");
           echo 'Congratulations! Your group has been created.';
                }
           if($over =='n'){
           echo '<br>','your group was not created','</br>';
           echo '<a href="createNew.php">','Try again','</a>';}

?>
```

## 19. delete.php

```
<html><body>
<!--this file allows the user to choose which of his groups to delete-->
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-US" xml:lang="en-US" xmlns="http://www.w3.org/1999/xhtml">

 <head>
  <title>PHP Test</title>
<!--add css files for formatting-->
<link rel="stylesheet" type="text/css" href="createNew.css"/>
<link rel="stylesheet" type="text/css" href="stdtheme.css" />

 </head>
 <body>

<h1><span class="color_h1">Choose the groups you would like to
delete</span></h1>
<hr/>
<p class="intro"></p>
<table id="users">



 <?php

$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//get name of user logged in
$User = $_SERVER['PHP_AUTH_USER'];
//get all groups owned by user
$result = mysql_query("SELECT name FROM Groups WHERE owner='$User'") or
die ("Can't select table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['name'];

sort($output);

$size = sizeof($output);

$i=0;
$k=0;
$l=0;
$times = floor($size/3);
```

```
$residue = $size%3;

//send all inputs to del.php
echo '<form action="del.php" method = "post">';
  echo '<tr>';
for($l;$l<$times;$l++){
      //display all groups that belong to user
      for($k=0;$k<3;$k++)
        {
            echo '<td>', '<input type = "checkbox" class="styled" name =
"checkbox[]" value=',"{$i}",'>';
            echo $output[$i];
            echo '</td>';
            $i=$i+1;

        }
      echo '</tr>';
        if (($l+1)%2 !=0){echo '<tr class="alt">';}
      else echo '<tr>';
}
$l=0;
echo '<tr>';
for ($l;$l<$residue;$l++){

      echo '<td>', '<input type = "checkbox" class="styled" name =
"checkbox[]" value=',"{$i}",'>';
      echo $output[$i];
      echo '</td>';
      $i=$i+1;}
echo '</tr>';

echo '</table>','<hr />';
echo '<input type="submit"/>';
echo '</form>';


?>
</body>
</head>
```

## 20. del.php

```
<?php
//this file deletes chosen groups
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//log in to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//get name of user logged in
$User = $_SERVER['PHP_AUTH_USER'];
$result = mysql_query("SELECT name FROM Groups WHERE owner='$User'") or
die ("Can't select table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['name'];

sort($output);
//get names of groups to delete from delete.php
$checked= $_POST['checkbox'] ;
$m=0;
//delete groups
foreach ($checked as $key=>$value){
      $arr[$m]=$output[$value];

      mysql_query("DROP TABLE $arr[$m]");
      mysql_query("DELETE from Groups WHERE Name='$arr[$m]'");
      $m=$m+1;
}

echo 'The group(s) you selected have been deleted';


    mysql_close();
?>
```

## 21. machine.php

```
<html><head>
<!--this website gets the inputs to graph user times for a given machine,
all inputs are sent to machines3.php-->
</head>

<!--inputs will be sent to machines3.php-->
<form action="machines3.php" method="post">



<?php
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//set default dates to the past week
$query = mysql_query("SELECT CURDATE()");
$day1 = mysql_fetch_array($query);
$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");
$day7 = mysql_fetch_array($query);

$bdate = $day7[0];

$edate = $day1[0];

//ask for begin date and end date in case they want a different time
period
echo 'Please choose begin date and end date for the period of usage you
wish to see (yyyy-mm-dd)','<br>','Begin date:','<input type="text"
name="bdate" value="',"{$bdate}",'"','/>','<br>','End date:','<input
type="text" name="edate" value = "',"{$edate}",'"','/>','<br>';
//get all machines so the user can pick one
echo '<div align="left">';
echo '<select name="machines" >';


//connect to psql database
                $dbconn = pg_connect("host=anemone.nano.nd.edu
dbname=coral user=display password=gOiRiSh") or die('Could not connect: '
. pg_last_error());
                $query = 'select distinct item from resmgr.reservation';
                $querydata = pg_query($dbconn, "$query");
                while($e=pg_fetch_array($querydata))
                {
                      $output2[]=$e['item'];
                }sort($output2);
```

```
//echo names of all machines
                  foreach ($output2 as $value){
                        echo '<option value="', "{$value}", '" name =
"machine"','>';
                        echo $value;
                        echo '</option>';}
//exit out of database
pg_close($dbconn);

echo '</select>';


echo '</div>';

echo '<input type="submit" value ="send">', '<input type="reset"';


            echo '</form>';


?>
</html>
```

## 22. machines3.php

```
<?php

//get machine and dates to graph
$machine=$_POST['machines'];
$bdate=$_POST['bdate'];
$edate=$_POST['edate'];



//connect to psql database
$dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral user=display
password=gOiRiSh") or die('Could not connect: ' . pg_last_error());



//prepare csv file for graph
$myFile = "mach_data_by_user.csv";
$fh = fopen($myFile, 'w') or die("can't open file");


$query1 = "select agent from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and item ='$machine'" ;

$query2 = "select bdate from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and item = '$machine'" ;

$query3 = "select edate from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and item = '$machine'" ;


$querydata1 = pg_query($dbconn, "$query1");
$querydata2 = pg_query($dbconn, "$query2");
$querydata3 = pg_query($dbconn, "$query3");

while($e=pg_fetch_assoc($querydata1))
{
  $agent[]=$e['agent'];
}

while($e=pg_fetch_assoc($querydata2))
{
  $btime[]=$e['bdate'];
}

while($e=pg_fetch_assoc($querydata3))
{
  $etime[]=$e['edate'];
}

for($index=0;$index<count($btime);$index++)
```

```
{
      $time[$index]=(strtotime($etime[$index])-
strtotime($btime[$index]))/3600;
}


$found=0;
$end=0;
for($i=0;$i<count($agent);$i++)
{

   for($index=0;$index<$end;$index++)
   {
      if($nagent[$index]==$agent[$i])
      {
         $ntime[$index]=$ntime[$index]+$time[$i];
         $found=1;
      }
   }
   if ($found==0)
   {
      $nagent[$end]=$agent[$i];
      $ntime[$end]=$time[$i];
      $end++;
   }
   $found=0;
}
//write all info to mach_data_by_user.csv
fwrite($fh, "Categories,Machines\n");

for($i=0;$i<count($ntime);$i++)
{
  fwrite($fh, "$nagent[$i]");
  fwrite($fh, ",");
  fwrite($fh, "$ntime[$i]");
  if ($i!=(count($ntime)-1))
    fwrite($fh, "\n");
}

fclose($fh);



?>
<html>
<meta HTTP-EQUIV="REFRESH" content="0;
url=http://ndnfinfo.ee.nd.edu/graphs/readcsv3.htm">
</html>
```

## 23. readcsv3.htm

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>Machines Example</title>
           <!-- 1. Add these JavaScript inclusions in the head of your
page -->
           <script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></s
cript>
           <script type="text/javascript"
src="./js/highcharts.js"></script>

           <!-- 1a) Optional: add a theme file -->

             <script type="text/javascript"
src="../js/themes/gray.js"></script>


           <!-- 1b) Optional: the exporting module -->
           <script type="text/javascript"
src="./js/modules/exporting.js"></script>


           <!-- 2. Add the JavaScript to initialize the chart on
document ready -->
           <script type="text/javascript">

var options = {
    chart: {
        renderTo: 'container',
        defaultSeriesType: 'column'
    },
    title: {
        text: 'Machine Usage by User'
    },
    xAxis: {
        categories: []
    },
    yAxis: {
        title: {
            text: 'hours'
        }
    },
    series: []
};

$.get('mach_data_by_user.csv', function(data) {
    // Split the lines
```

```
    var lines = data.split('\n');

    // Iterate over the lines and add categories or series
    $.each(lines, function(lineNo, line) {
        var items = line.split(',');

        // header line containes categories
        if (lineNo == 0) {
            $.each(items, function(itemNo, item) {
                if (itemNo > 0) options.xAxis.categories.push(item);
            });
        }

        // the rest of the lines contain data with their name in the
first position
        else {
            var series = {
                data: []
            };
            $.each(items, function(itemNo, item) {
                if (itemNo == 0) {
                    series.name = item;
                } else {
                    series.data.push(parseFloat(item));
                }
            });

           options.series.push(series);

        }

    });

    // Create the chart
    var chart = new Highcharts.Chart(options);
});

</script>
</head>
     <body>

           <!-- 3. Add the container -->
           <div id="container" style="width: 800px; height: 400px;
margin: 0 auto"></div>


     </body>
</html>
```

## 24. byUser.php

```
<html><head>
<!--this file allows the user to select a lab user and dates to plot
machines the lab user has worked on-->
</head>

<!--all inputs will be sent to machines2.php-->
<form action="machines2.php" method="post">
<?php
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//set default dates
$query = mysql_query("SELECT CURDATE()");
$day1 = mysql_fetch_array($query);
$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");
$day7 = mysql_fetch_array($query);

$bdate = $day7[0];

$edate = $day1[0];
//ask for dates in case they want to change default
echo 'Please choose begin date and end date for the period of usage you
wish to see (yyyy-mm-dd)','<br>','Begin date:','<input type="text"
name="bdate" value="',"{$bdate}",'"','/>','<br>','End date:','<input
type="text" name="edate" value = "',"{$edate}",'"','/>','<br>';

echo '<div align="left">';
echo '<select name="user" >';


//connect to psql database
$dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral user=display
password=gOiRiSh") or die('Could not connect: ' . pg_last_error()); //get
al user netIDs so they can select which user to plot for
                $query = 'select name from rscmgr.member';
                $querydata = pg_query($dbconn, "$query");
                while($e=pg_fetch_array($querydata))
                {
                      $output2[]=$e['name'];
                }sort($output2);
                foreach ($output2 as $value){
                      echo '<option value="', "{$value}", '" name =
"user"','>';
                      echo $value;
                      echo '</option>';}
pg_close($dbconn);
```

```
echo '</select>';


echo '</div>';

echo '<input type="submit" value ="send">', '<input type="reset"';


            echo '</form>';


?>
</html>
```

## 25. machines2.php

```
<?php

// This script displays the times one user has spent on various machines
for a given time period
$dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral user=display
password=gOiRiSh") or die('Could not connect: ' . pg_last_error());

// Get the info the user has selected
$user=$_POST['user'];
$bdate=$_POST['bdate'];
$edate=$_POST['edate'];

// The name of the csv file used to plot the info
$myFile = "user_data_by_mach.csv";
$fh = fopen($myFile, 'w') or die("can't open file");

// Create db queries
$query1 = "select item from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and agent ='$user'" ;

$query2 = "select bdate from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and agent = '$user'" ;

$query3 = "select edate from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and agent = '$user'" ;

// Query the db
$querydata1 = pg_query($dbconn, "$query1");
$querydata2 = pg_query($dbconn, "$query2");
$querydata3 = pg_query($dbconn, "$query3");

// fetch the results
while($e=pg_fetch_assoc($querydata1))
{
  $item[]=$e['item'];
```

```
}

while($e=pg_fetch_assoc($querydata2))
{
  $btime[]=$e['bdate'];
}

while($e=pg_fetch_assoc($querydata3))
{
  $etime[]=$e['edate'];
}

// the total time in hours, found by subtracting the begin time from the
end time
for($index=0;$index<count($btime);$index++)
{
      $time[$index]=(strtotime($etime[$index])-
strtotime($btime[$index]))/3600;
}

// This part calculates the time for each machine
$found=0;
$end=0;
// item[] contains all the machines from all the reservations, possibly
with duplicates
// nitem[] will have no duplicates
// time[] contains all the times from all reservations
// ntime[] contains all the times from the reservations for each machine
for($i=0;$i<count($item);$i++)  // loop through all the items listed
{
   // for each item, check if it is nitem[]
   for($index=0;$index<$end;$index++)
   {
      if($nitem[$index]==$item[$i])  // if the item is found, add the
time to total time
      {
         $ntime[$index]=$ntime[$index]+$time[$i];
         $found=1;
      }
   }

   // If the item was not found (the item wasn't already listed in
nitem[]), add it to nitem[]
   if ($found==0)
   {
      $nitem[$end]=$item[$i];
      $ntime[$end]=$time[$i];
      $end++;
   }
   $found=0;
}

fwrite($fh, "Categories,Machines\n");
```

```
// Write to the csv file
for($i=0;$i<count($ntime);$i++)
{
  fwrite($fh, "$nitem[$i]");
  fwrite($fh, ",");
  fwrite($fh, "$ntime[$i]");
  if ($i!=(count($ntime)-1))
    fwrite($fh, "\n");
}

fclose($fh);

?>
<html>
<meta HTTP-EQUIV="REFRESH" content="0;
url=http://ndnfinfo.ee.nd.edu/graphs/readcsv2.htm">
</html>
```

## 26. readcsv2.htm

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>Machines Example</title>
           <!-- 1. Add these JavaScript inclusions in the head of your
page -->
           <script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></s
cript>
           <script type="text/javascript"
src="./js/highcharts.js"></script>

           <!-- 1a) Optional: add a theme file -->

             <script type="text/javascript"
src="../js/themes/gray.js"></script>


           <!-- 1b) Optional: the exporting module -->
           <script type="text/javascript"
src="./js/modules/exporting.js"></script>


           <!-- 2. Add the JavaScript to initialize the chart on
document ready -->
           <script type="text/javascript">


var options = {
    chart: {
        renderTo: 'container',
        defaultSeriesType: 'column'
    },
    title: {
        text: 'Machine Usage by User'
    },
    xAxis: {
        categories: []
    },
    yAxis: {
        title: {
            text: 'hours'
        }
    },
    series: []
};

$.get('user_data_by_mach.csv', function(data) {
```

```
    // Split the lines
    var lines = data.split('\n');

    // Iterate over the lines and add categories or series
    $.each(lines, function(lineNo, line) {
        var items = line.split(',');

        // header line containes categories
        if (lineNo == 0) {
            $.each(items, function(itemNo, item) {
                if (itemNo > 0) options.xAxis.categories.push(item);
            });
        }

        // the rest of the lines contain data with their name in the
first position
        else {
            var series = {
                data: []
            };
            $.each(items, function(itemNo, item) {
                if (itemNo == 0) {
                    series.name = item;
                } else {
                    series.data.push(parseFloat(item));
                }
            });

           options.series.push(series);

        }

    });

    // Create the chart
    var chart = new Highcharts.Chart(options);
});

</script>
</head>
     <body>

           <!-- 3. Add the container -->
           <div id="container" style="width: 800px; height: 400px;
margin: 0 auto"></div>


     </body>
</html>
```

## 27. allTime.php

```
<html>
<!--include reservations.css for formatting-->
<link rel="stylesheet" type="text/css" href="reservations.css" />

<?php
/*This file is supposed to be placed in the directory /var/www/site.  It
is called to calculate and display top users for the day, week, and of
all time on the web site.*/


$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");


//$totaldays is an array containing the number of days that super user
candidates have spent logged in in descending order.  There will be
repeats.
$result = mysql_query("SELECT days FROM users2 where super = 'YES' ORDER
BY days DESC") or die ("Can't select table");
while($resultdata = mysql_fetch_assoc($result))
   $totaldays[] = $resultdata['days'];
//Since there are repeats, for each value in $totaldays, there needs to
be an ordered array of the time column in users2.

//$h is initialized at zero.  For the following for loop, $h tracks the
index of the array $tops, which contains the top all time users in order.
$h = 0;

//The for loop starts at $d = the top user's total number of days, and
goes down to zero.
for ($d = $totaldays[0];$d>=0;$d--){
      //This command returns the time variable for super user candidates
who have spent $d days in the cleanroom in descending order.  $TotalTime
is that array.
   $result = mysql_query("SELECT time FROM users2 WHERE days = $d and
super = 'YES' order by time desc") or die ("Can't select table");
   while ($e = mysql_fetch_array($result))
     $totalTime[]=$e['time'];
   rsort($totalTime);
//users with the top days + time values get transferred into $tops array.
$tops is the ordered list of top users' names.
   for ($g=0;$g < count($totalTime); $g++){
      $result = mysql_query("SELECT user FROM users2 where time =
'$totalTime[$g]' and days = $d and super = 'YES'") or die(mysql_error());
      $resultdata = mysql_fetch_array($result);
```

```
      $tops[$h]=$resultdata[0];
      $h = $h + 1;
      }
//$totalTime is reset so it is empty for the next value of $d.
unset($totalTime);
}

//$today is the current date.  This is used for the day's top user.
$query = mysql_query("SELECT CURDATE()");
$today = mysql_fetch_array($query);


//The top users of the day are selected, omitting users with no time
logged, then the array is sorted.
$result = mysql_query("SELECT day FROM users2 WHERE lastdate =
'$today[0]' and day > '00:00:00' and super = 'YES'") or die ("Can't
select table");
while ($e = mysql_fetch_array($result))
  $dailyTime[]=$e['day'];

rsort($dailyTime);

//$lastdate is the date of the last scan.
$result = mysql_query("SELECT lastdate FROM users2 ORDER BY lastdate
DESC") or die ("Can't select table");
$data = mysql_fetch_array($result);
$lastdate = $data['lastdate'];

//$users is an array of all super user candidates.
$result2 = mysql_query("SELECT user FROM users2 where super = 'YES'") or
die (mysql_error());
while($resultdata = mysql_fetch_assoc($result2))
      $users[] = $resultdata['user'];

//For each super user candidate, Their total time for the last 7 days is
calculated.
for($i=0;$i<count($users);$i++){
      //First their time for the current day is collected.  If it is
null, it is changed to 00:00:00 so the summing functions still work.
      $result3 = mysql_query("SELECT day FROM users2 WHERE user =
'$users[$i]' and lastdate = '$lastdate'") or die(mysql_error());
      $data3 = mysql_fetch_array($result3);
      $userstime[$i] = $data3['day'];
      if ($userstime[$i] == ''){
      $userstime[$i] = '00:00:00';
      }
      //A variable is created for the user's '_By_Day' table.
      $temp3 = $users[$i];
      $nametemp = mysql_query("SELECT REPLACE ('$temp3',' ','')") or
die(mysql_error());
        $nametemp1 = mysql_fetch_array($nametemp);
        $nametable = $nametemp1[0];
        $nametable2 = $nametable . "_By_Day";
      //For each of the past 6 days, add it to the total time sum.
```

```
      for($j=1;$j<7;$j++){
            $result4 = mysql_query("SELECT time from $nametable2 where
date = date_sub('$lastdate',interval $j day)") or die(mysql_error());
            $data4 = mysql_fetch_array($result4);
            $temp = $userstime[$i];
            $temp2 = $data4['time'];
            if($temp2 == ''){
            $temp2 = '00:00:00';
            }
            $result5 = mysql_query("SELECT ADDTIME('$temp','$temp2')") or
die(mysql_error());
            $data5 = mysql_fetch_array($result5);
            $temp4 = $data5[0];
            if($j==6)
                  $userstime[$i] = $temp4;
}

}
//Sort the parallel arrays of users and their times for the last week by
$userstime in descending order.
array_multisort($userstime, SORT_DESC,$users);







//This displays the top 10 of each category on a table.

echo '<table id="Top Users">';
echo '<thead>', '<tr>', '<th scope="col" id="user">All Time</th>';
echo '<th>', 'Today', '</th>';
echo '<th>', 'Weekly Superusers';
echo '</tr>', '</thead>';
echo '<tbody>';

for($i=0;$i<10;$i++){
$result = mysql_query("SELECT total FROM users2 WHERE user ='$tops[$i]'
") or die ("Can't select table");
$user1=mysql_fetch_assoc($result);
$userTot = $user1['total'];
$result2 = mysql_query("SELECT user FROM users2 WHERE lastdate
='$today[0]' and day = '$dailyTime[$i]'") or die ("Can't select table");
$user2=mysql_fetch_assoc($result2);
$userDay = $user2['user'];

      //for($i;$i<$size;$i++){

            echo '<tr>';
            echo '<td>', $tops[$i], ' ', $userTot, '</td>';
            echo '<td>', $userDay, ' ', $dailyTime[$i], '</td>';
            echo '<td>', $users[$i], '<td>';
```

```
            echo '</tr>';

      //}

//echo $user, ' ', $totalTime[$i], '<br>';
}
echo '</tbody>', '</table>';
?>
</html>
```

## 28. showRes.php

```
<?php
//this file asks the user to select the time period for which they wish
to see a machine's reservations
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
//connect to database
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
//set default dates
$query = mysql_query("SELECT CURDATE()");
$day1 = mysql_fetch_array($query);
$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");
$day7 = mysql_fetch_array($query);

$bdate = $day7[0];

$edate = $day1[0];
//get machine for which to show reservations from main.php
$mach  = $_GET['machine'];

// send machine  name to reservations.php
echo '<form action="reservations.php?machine=',"{$mach}",'"', 'method =
"post">';
//ask for dates in case they want to change the default
echo 'Please choose begin date and end date for the period of
reservations you wish to see (yyyy-mm-dd)','<br>','Begin date:','<input
type="text" name="bdate" value="',"{$bdate}",'"','/>', '<br>','End
date:','<input type="text" name="edate" value =
"',"{$edate}",'"','/>','<br>';
            echo '<input type="submit"/>';
            echo '</form>';


?>
```

## 29. reservations.php

```
<html>
<!--this file displays reservations for the machine and time period
specified by the user-->
<!--include reservations.css for formatting-->
<link rel="stylesheet" type="text/css" href="reservations.css" />
<?php
//get machine name from showress.php
$mach  = $_GET['machine'];


//Connect to database
    $dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral
user=display password=gOiRiSh") or die('Could not connect: //' .
pg_last_error());
//get dates for which to show reservations
$bdate = $_POST['bdate'];
$edate  = $_POST['edate'];


$query = "select agent,bdate,edate from resmgr.reservation where stale=0
and bdate>'$bdate' and edate<'$edate' and item = '$mach'";

//get name of person who made reservation and date for reservation
$querydata = pg_query($dbconn, "$query");
while($e=pg_fetch_assoc($querydata))
{
   $output[]=$e['agent'];
$output1[]=$e['bdate'];
$output2[]=$e['edate'];

}

$size = sizeof($output);

$i=0;
//display reservations in a table
echo '<table id="reservations">';
echo '<thead>', '<tr>', '<th scope="col" id="user">NetID</th>';
echo '<th>', 'Begin date', '</th>';
echo '<th>', 'End date', '</th>', '</tr>', '</thead>';
echo '<tbody>';

for($i;$i<$size;$i++){

      echo '<tr>';
      echo '<td>', $output[$i], '</td>';
      echo '<td>', $output1[$i], '</td>';
      echo '<td>', $output2[$i], '</td>';

      echo '</tr>';
```

```
}


echo '</tbody>', '</table>';

//close database
pg_close($dbconn);

?>
</html>
```

## 30. machine_statuses.php

```
<?php
//this file gets the names of all machines that are down
//connect to database
$dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral user=display
password=gOiRiSh") or die('Could not connect: ' . pg_last_error());
//get names of machines that are down
$query = "SELECT name FROM eqmgr.equipment WHERE shutdowns = '1'";
$querydata = pg_query($dbconn,"$query");
//display names of machines
echo 'Machines Down:', '<br>';
while ($machine = pg_fetch_array($querydata)){
echo $machine[0] , '<br>';
}
// close database
pg_close($dbconn);
?>
```

## 31. Users1.php

```
<html>
<!--this file creates a table with the names of all users currently
inside cleanroom-->
<!-- style formats the table-->
<style type="text/css">
table
{
border-collapse:collapse;
}
table, td, th
{
border:1px solid #E0F574;
}
table
{
width:50%;
}
th
{
height:25px;
}
td
{
text-align:center;
}
td
{
height:25px;
vertical-align:bottom;
color:black;
}
table, td, th
{
border:1px solid #E0F574;
}
th
{
background-color:#E0F574;
color:black;
}
thead
{
font-family:"Trebuchet MS", Arial, Helvetica, sans-serif;
}
</style>

<?php
      echo '<p>','Current cleanroom users:','</p>';
//connect to database
      mysql_connect("localhost","root","WafersD11");
```

```
      mysql_select_db("ndnfinfo");

      $q=mysql_query("SELECT * FROM users");
//get users currently working in cleanroom
      while($e=mysql_fetch_assoc($q))
      {
              $name[]=$e['user'];
              $time[]=$e['tin'];
      }

echo '<table id="Top Users">';
echo '<thead>', '<tr>', '<th scope="col" id="user">User</th>';
echo '<th>', 'Time in', '</th>';
echo '</tr>', '</thead>';
echo '<tbody>';

      $i=0;
//display the names intable
      for ($i; $i<sizeof($name); $i++)
      {
          echo '<tr>';
        echo '<td>', $name[$i], '</td>';
        echo '<td>', $time[$i], '</td>';
          echo '</tr>';

      }
echo '</tbody>', '</table>';

    mysql_close();
?>
```

## 32. help.php

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<html lang="en-US" xml:lang="en-US" xmlns="http://www.w3.org/1999/xhtml">

 <head>
  <title>PHP Test</title>
<link rel="stylesheet" type="text/css" href="createNew.css"/>
<link rel="stylesheet" type="text/css" href="stdtheme.css"/>




<style type="text/css">

</style>


 </head>
 <body>
```

<h1>Thank you for visiting NDNFINFO Graphing Central!</h1>
<hr/>
<p><font size="4"> Groups </font>
<font size="3"><blockquote>If you have not yet created a group, read more about it under the "Edit Group" section.  First, select a group that you have already created. This will bring up the option to select the type of chart you wish to view.  On this line, type "pie chart" or "scatter". The pie chart displays information for the past seven days. For the scatter plot, choose a period up to two weeks.  A longer time period can be selected for the scatter plot, but the graph may be cluttered.  It will also take longer to plot since it requires more time to retrieve the information from our database.
</blockquote></font>

<font size="4"> Edit Group </font>
<font size="3"><blockquote>If you would like to create a group to monitor, you can select “Edit Group” from the drop-down menu at the top of the page.  Select "Edit/Create Group". This will lead you to a selection screen with all cleanroom users listed alphabetically.  Check all of the users you would like in your group and pick a name for your group.  Group names must be limited to one word.  If your group name is invalid, you will be asked to enter a different name.  Once a group is created, you (and only you) will be able to see and select your group from the “Groups” tab at the top left of the page.  If you wish to edit an existing group, simply click the "Edit/Create Group" tab again, and check off the names of the users you wish to have in the new version of your group.  Then put the name of your group in the text line at the bottom of the screen and submit your query.  The changes you have made to your group will now be reflected in the plots.  Finally, if you wish to delete a group, select the "Delete Group" tab.  You will be prompted to select which group you wish to delete.
</blockquote></font>

<font size="4"> Graphs </font>
<font size="3"><blockquote>There are two options for plotting machine usage: by machine and by user.  The default time frame is for the past seven days, but this can be changed.  Selecting "Machine" lets you view how many hours each cleanroom user has spent working on the machine of interest.  Selecting "By User" lets you see how many hours one user has spent on each machine.
</blockquote></font>


<font size="4"> Top Users </font>
<font size="3"><blockquote>Top users lists the users that have spent the most time in the cleanroom for the past week and for the current day. Their times are listed in the form days:hours:minutes:seconds.
</blockquote></font>


<font size="4"> Machines </font>
<font size="3"><blockquote>The Machines tab can be used to check future reservations and availability of specific machines.  Select the machine

```
of interest from the drop-down menu, and enter the start and end dates in
the form “yyyy-mm-dd”.  Additionally, the “Machines Down” option yields a
list of the current machines that are under maintenance.
</blockquote></font>


<font size="4"><span class="color_h1"> Current Users </span></font>
<font size="3"><blockquote>This options list the current lab users, as
well as the time that they entered the lab.
</blockquote></font>

</p>


</body>
</html>
```

## 33. base64decoder.cpp

```
#include <iostream>
#include <stdio.h>
#include <stdlib.h>
#include <string>
#include <fstream>
#include "base64decoder.h"


static const std::string base64_chars =
             "ABCDEFGHIJKLMNOPQRSTUVWXYZ"
             "abcdefghijklmnopqrstuvwxyz"
             "0123456789+/";

static inline bool is_base64(unsigned char c) {
  return (isalnum(c) || (c == '+') || (c == '/'));
}

std::string base64_encode(unsigned char const* bytes_to_encode,
unsigned int in_len) {
  std::string ret;
  int i = 0;
  int j = 0;
  unsigned char char_array_3[3];
  unsigned char char_array_4[4];

  while (in_len--) {
    char_array_3[i++] = *(bytes_to_encode++);
    if (i == 3) {
      char_array_4[0] = (char_array_3[0] & 0xfc) >> 2;
      char_array_4[1] = ((char_array_3[0] & 0x03) << 4) +
((char_array_3[1] & 0xf0) >> 4);
      char_array_4[2] = ((char_array_3[1] & 0x0f) << 2) +
((char_array_3[2] & 0xc0) >> 6);
```

```
      char_array_4[3] = char_array_3[2] & 0x3f;

      for(i = 0; (i <4) ; i++)
        ret += base64_chars[char_array_4[i]];
      i = 0;
    }
  }

  if (i)
  {
    for(j = i; j < 3; j++)
      char_array_3[j] = '\0';

    char_array_4[0] = (char_array_3[0] & 0xfc) >> 2;
    char_array_4[1] = ((char_array_3[0] & 0x03) << 4) +
((char_array_3[1] & 0xf0) >> 4);
    char_array_4[2] = ((char_array_3[1] & 0x0f) << 2) +
((char_array_3[2] & 0xc0) >> 6);
    char_array_4[3] = char_array_3[2] & 0x3f;

    for (j = 0; (j < i + 1); j++)
      ret += base64_chars[char_array_4[j]];

    while((i++ < 3))
      ret += '=';

  }

  return ret;

}

std::string base64_decode(std::string const& encoded_string) {
  int in_len = encoded_string.size();
  int i = 0;
  int j = 0;
  int in_ = 0;
  unsigned char char_array_4[4], char_array_3[3];
  std::string ret;

  while (in_len-- && ( encoded_string[in_] != '=') &&
is_base64(encoded_string[in_])) {
    char_array_4[i++] = encoded_string[in_]; in_++;
    if (i ==4) {
      for (i = 0; i <4; i++)
        char_array_4[i] = base64_chars.find(char_array_4[i]);

      char_array_3[0] = (char_array_4[0] << 2) + ((char_array_4[1] &
0x30) >> 4);
      char_array_3[1] = ((char_array_4[1] & 0xf) << 4) +
((char_array_4[2] & 0x3c) >> 2);
```

```
      char_array_3[2] = ((char_array_4[2] & 0x3) << 6) +
char_array_4[3];

      for (i = 0; (i < 3); i++)
        ret += char_array_3[i];
      i = 0;
    }
  }

  if (i) {
    for (j = i; j <4; j++)
      char_array_4[j] = 0;

    for (j = 0; j <4; j++)
      char_array_4[j] = base64_chars.find(char_array_4[j]);

    char_array_3[0] = (char_array_4[0] << 2) + ((char_array_4[1] &
0x30) >> 4);
    char_array_3[1] = ((char_array_4[1] & 0xf) << 4) +
((char_array_4[2] & 0x3c) >> 2);
    char_array_3[2] = ((char_array_4[2] & 0x3) << 6) +
char_array_4[3];

    for (j = 0; (j < i - 1); j++) ret += char_array_3[j];
  }

  return ret;
}
```

## 34. base64decoder.h

```
#ifndef FILE_BASE64DECODER_SEEN
#define FILE_BASE64DECODER_SEEN

static inline bool is_base64(unsigned char c);
std::string base64_encode(unsigned char const* bytes_to_encode,
unsigned int in_len);
std::string base64_decode(std::string const& encoded_string);

#endif
```

## 35. functions.cpp

```
#include <iostream>
#include <stdio.h>
#include <stdlib.h>
#include <string>
#include <fstream>
#include <vector>
```

```
#include <algorithm>
#include <sys/time.h>
#include "functions.h"

using namespace std;
// A pause function that uses the system clock to wait a specified
period
int pause(int secs)
{
    long tm1,test;
    time(&tm1);
    test = tm1 + secs;
    while(tm1 < test)
    {
         time(&tm1);
    }
    return 0;
}

void update_html(vector<string> users)
{
   ofstream myfile;
   system("rm users.html");
   myfile.open ("users.html");
   myfile <<
   "<html> <head> <script type=\"text/JavaScript\"> function
timedRefresh(timeoutPeriod)
{setTimeout(\"location.reload(true);\",timeoutPeriod);} </script>
</head> <body onload=\"JavaScript:timedRefresh(5000);\"> ";
   myfile << "Users: <br />" << endl;
   for (int i=0; i < users.size(); i++)
   {
         myfile << users[i] << "<br />" << endl;
   }
   myfile << "</html>" << endl;
   myfile << "</body>" << endl;
   myfile.close();
   system("./sftp.sh");
}
```

## 36. functions.h

```
#ifndef FILE_FUNCTIONS
#define FILE_FUNCTIONS

int pause(int secs);
void update_html(std::vector<std::string> users);

#endif
```

# Android

## 37. machinenames.php

```
<?php

     // This script is used to show the names of all the machines
currently in the coral database to the user
     $dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral
user=display password=gOiRiSh") or die('Could not connect: ' .
pg_last_error());

     $query = 'select distinct item from resmgr.reservation';
     $querydata = pg_query($dbconn, "$query");
     while($e=pg_fetch_assoc($querydata))
     {
      $output[]=$e;
     }

     print(json_encode($output));

     pg_close($dbconn);
?>
```

## 38. machine_statuses.php

```
<?php

// This script is used to show the names of all the machines currently
shutdown

$dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral user=display
password=gOiRiSh") or die('Could not connect: ' . pg_last_error());
$query = "SELECT name FROM eqmgr.equipment WHERE shutdowns = '1'";
$querydata = pg_query($dbconn,"$query");

while ($e = pg_fetch_assoc($querydata)){
 $output[]=$e;
}

print(json_encode($output));
pg_close($dbconn);


?>
```

## 39. machres.php

```
<?php

// This script shows all the reservations from the start date to end date
for a given machine
    $dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral
user=display password=gOiRiSh") or die('Could not connect: ' .
pg_last_error());

// Get the start date, end date, and machine from the url passed by the
user
$sdate = $_GET['sdate'];
$edate = $_GET['edate'];
$mach  = $_GET['mach'];

$query = "select agent,bdate,edate from resmgr.reservation where stale=0
and bdate>'$sdate' and edate<'$edate' and item = '$mach'";


$querydata = pg_query($dbconn, "$query");
while($e=pg_fetch_assoc($querydata))
{
   $output[]=$e;
}

print(json_encode($output));
pg_close($dbconn);

?>
```

## 40. rankings.php

```
<?php
      // This script shows all the top lab users for the day
      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      // Get the daily time for each user that has been in today
      $result = mysql_query("SELECT day FROM users2 WHERE lastdate =
CURDATE()") or die ("Can't select table");
      while ($e = mysql_fetch_array($result))
         $totalTime[]=$e['day'];

      // sort the times
      rsort($totalTime);

      // select the users whose times correspond to the times given
      for($i=0;$i<10;$i++){
         $result = mysql_query("SELECT user FROM users2 WHERE day
='$totalTime[$i]' ") or die ("Can't select table");
         $user1=mysql_fetch_assoc($result);
         $userTot[] = $user1['user'];
      }

      // This section encodes the information in JSON, a form
understandable by the Android.
      echo '[';
      for($i=0;$i<10;$i++){
      if ($userTot[$i]!="" && $totalTime[$i]!='00:00:00')
      {
        echo '{';
        echo '"user":"';
        echo "$userTot[$i]";
        echo '","';
        echo 'time":"';
        echo "$totalTime[$i]";
        echo '"';
        echo '}';
        if ($i!=9)
          echo ',';
      }
      }
      echo ']';
    mysql_close();
?>
```

## 41. userhis.php

```
<?php

// This script shows the history of logins and logouts for a given user
mysql_connect("localhost","root","WafersD11");

mysql_select_db("ndnfinfo");

$sdate = $_GET['sdate'];
$edate = $_GET['edate'];
$user  = $_GET['user'];

$query = "select * from $user where tin>'$sdate' and tout<'$edate'";

$querydata = mysql_query($query);

while($e=mysql_fetch_assoc($querydata))
{
   $output[]=$e;
}

print(json_encode($output));
mysql_close();

?>
```

## 42. usernames.php

```
<?php
      // This script shows all the users currently in our database
      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      $q=mysql_query("SELECT user FROM users2");

      while($e=mysql_fetch_assoc($q))

              $output[]=$e;

      print(json_encode($output));

    mysql_close();
?>
```

## 43. users.php

```
<?php
      // This script shows all the users currently in the cleanroom
      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      $q=mysql_query("SELECT * FROM users");

      while($e=mysql_fetch_assoc($q))

              $output[]=$e;

           print(json_encode($output));

    mysql_close();
?>
```

# iPhone

## 44. index.htm

```
<html>
<head>

<style type ="text/css" >
body {background-image:url('AppBackground.jpg');
width: 100%;
height: 100%;
position: absolute;
top:0;
left:0;}

input {
   font-family: "Times New Roman", Times, serif;
   font-size: 18px;
   font-weight: bold;
   color: #000000;
   background-color: #FFFFFF;
   padding: 5px;
   height: 30px;
   width: 150px;
}
input.myButton {
   font-family: Arial, Helvetica, sans-serif;
   font-size: 20px;
   font-style: italic;
   color: #000000;
   background-color: #CCCCFF;
   padding: 2px;
   height: 50px;
   width: 100px;
   border: 1px solid #000000;
}

</style>
</head>
 <body>

<h1><font size="6" color = 'blue'><pre> <div align="center">NDNFINFO
Login</div></pre></font></h1><br>
<form action="login.php" method = "post">
<br> <font size='5' color='blue'>
<b>Login:</b>       </font><input
type="text" name="username"><br>
<br> </br><font size='5' color='blue'> <b>Password:</b> </font><input
type="password" name="password"><br><br><br><br>
<div align="center"><input type="submit"  name="Submit" value="Submit"
class="myButton" ></div>
</form>
```

```
 </body>

</html>
```

## 45. login.php

```
<?php

$username = $_POST['username'];
$password = $_POST['password'];

mysql_connect("localhost","root","WafersD11");

mysql_select_db("ndnfinfo");

$q=mysql_query("SELECT * FROM logins");

while($e=mysql_fetch_assoc($q))
{
    $users[]=$e['user'];
    $pwords[]=$e['password'];
}

for ($i=0; $i< sizeof($users); $i++)
{
  if ($username == $users[$i] && $password == $pwords[$i])
  {
     include "homepage.php";
     break;
  }
  else if ($i == sizeof($users)-1)
    echo 'Not a valid username-password combination.  Please go back and
try again';

}


?>
```

## 46. machines.php

```
<html>
<style type ="text/css" >
body {background-image:url('AppBackground.jpg');
width: 100%;
height: 100%;
position: absolute;
top:0;
left:0;}
input {
   font-family: "Times New Roman", Times, serif;
   font-size: 12px;
   font-weight: bold;
   color: #000000;
   background-color: #FFFFFF;
   padding: 5px;
   height: 30px;
   width: 100px;
}
input.myButton {
   font-family: Arial, Helvetica, sans-serif;
   font-size: 20px;
   font-style: italic;
   color: #000000;
   background-color: #CCCCFF;
   padding: 2px;
   height: 50px;
   width: 100px;
   border: 1px solid #000000;
}
</style>


<head>

</head>
<body>
<br>
<h1><font size="6"><div align="center">Machine Usage for Previous 7
Days</div></font></h1>
<div align="center">
<br>
<form action="machines_by_user.php" method="post">




<?php
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";
```

```
$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
$query = mysql_query("SELECT CURDATE()");
$day1 = mysql_fetch_array($query);
$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");
$day7 = mysql_fetch_array($query);



echo '<div align="center">';
echo '<select name="machines" >';



                $dbconn = pg_connect("host=anemone.nano.nd.edu
dbname=coral user=display password=gOiRiSh") or die('Could not connect: '
. pg_last_error());
                $query = 'select distinct item from resmgr.reservation';
                $querydata = pg_query($dbconn, "$query");
                while($e=pg_fetch_array($querydata))
                {
                      $output2[]=$e['item'];
                }sort($output2);
                foreach ($output2 as $value){
                      echo '<option value="', "{$value}", '" name =
"machine"','>';
                      echo $value;
                      echo '</option>';}
pg_close($dbconn);

echo '</select>', '<br>','<br>','<br>';
echo '<input type="submit" value ="submit">';
echo '</div>';

echo '</form>';
/*echo '<form action="../graphs/Custom_Plots.php" method="post">';
echo '<div align="center">';
echo'<select name="group">';
$User = $_SERVER['PHP_AUTH_USER'];
echo $User;
$result = mysql_query("SELECT name FROM Groups WHERE owner='$User'") or
die ("Can't select table");
while($e=mysql_fetch_assoc($result))
   $output[]=$e['name'];

sort($output);


$size = sizeof($output);
$i=1;
```

```
foreach ($output as $value){
    echo '<option value="', "{$value}", '">';
      echo $value;
      echo '</option>';}
echo '</select>','<br>';
echo '<input type="submit" value="submit">';
echo '</div>';
echo '</form>';*/

mysql_close();



?>
</body>
</html>
```

## 47. machines_by_user.php

```
<?php

$dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral user=display
password=gOiRiSh") or die('Could not connect: ' . pg_last_error());

$query = pg_query($dbconn, "SELECT current_date");
$day1 = pg_fetch_array($query);
$query = pg_query($dbconn, "select current_date - integer '7'");
$day7 = pg_fetch_array($query);

$bdate = $day7[0];

$edate = $day1[0];

$machine=$_POST['machines'];
//$bdate=$_POST['bdate'];
//$edate=$_POST['edate'];


$myFile = "./mach_data_by_user.csv";
$fh = fopen($myFile, 'w') or die("can't open file");


$query1 = "select agent from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and item ='$machine'" ;

$query2 = "select bdate from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and item = '$machine'" ;

$query3 = "select edate from eqmgr.eq_activity where stale=0 and
bdate>'$bdate' and edate<'$edate' and item = '$machine'" ;


$querydata1 = pg_query($dbconn, "$query1");
$querydata2 = pg_query($dbconn, "$query2");
$querydata3 = pg_query($dbconn, "$query3");

while($e=pg_fetch_assoc($querydata1))
{
  $agent[]=$e['agent'];
}

while($e=pg_fetch_assoc($querydata2))
{
  $btime[]=$e['bdate'];
}

while($e=pg_fetch_assoc($querydata3))
{
  $etime[]=$e['edate'];
}
```

```
for($index=0;$index<count($btime);$index++)
{
      $time[$index]=(strtotime($etime[$index])-
strtotime($btime[$index]))/3600;
}


$found=0;
$end=0;
for($i=0;$i<count($agent);$i++)
{

   for($index=0;$index<$end;$index++)
   {
      if($nagent[$index]==$agent[$i])
      {
         $ntime[$index]=$ntime[$index]+$time[$i];
         $found=1;
      }
   }
   if ($found==0)
   {
      $nagent[$end]=$agent[$i];
      $ntime[$end]=$time[$i];
      $end++;
   }
   $found=0;
}

fwrite($fh, "Categories,Machines\n");
for($i=0;$i<count($ntime);$i++)
{
  fwrite($fh, "$nagent[$i]");
  fwrite($fh, ",");
  fwrite($fh, "$ntime[$i]");
  if ($i!=(count($ntime)-1))
    fwrite($fh, "\n");
}

fclose($fh);



?>
<html>
<meta HTTP-EQUIV="REFRESH" content="0;
url=http://ndnfinfo.ee.nd.edu/iphone/readCSV3.htm">
</html>
```

## 48. machres.php (iPhone)

```
<html>
<style type ="text/css" >
body {background-image:url('AppBackground.jpg');
width: 100%;
height: 100%;
position: absolute;
top:0;
left:0;}
input {
   font-family: "Times New Roman", Times, serif;
   font-size: 20px;
   font-weight: bold;
   color: #000000;
   background-color: #FFFFFF;
   padding: 5px;
   height: 30px;
   width: 100px;
}
input.myButton {
   font-family: Arial, Helvetica, sans-serif;
   font-size: 20px;
   font-style: italic;
   color: #000000;
   background-color: #CCCCFF;
   padding: 2px;
   height: 50px;
```

```
   width: 100px;
   border: 1px solid #000000;
}
</style>
<head>

</head>
<body>
<br>
<h1><font size="6"><div align="center">Machine Reservations for Previous
and Next 7 Days</div></font></h1>
<div align="center">
<br>
<form action="reservations.php" method="post">




<?php
$db_host = "localhost";
$db_user = "root";
$db_pwd = "WafersD11";
$database = "ndnfinfo";

$link = @mysql_connect($db_host, $db_user, $db_pwd) or
die(mysql_error());
$link2 = mysql_select_db($database) or die("Can't select database");
$query = mysql_query("SELECT CURDATE()");
```

```
$day1 = mysql_fetch_array($query);

$query = mysql_query("select DATE_SUB(curdate(), INTERVAL 6 DAY)");

$day7 = mysql_fetch_array($query);

echo '<div align="center">';

echo '<select name="machines" >';

                $dbconn = pg_connect("host=anemone.nano.nd.edu
dbname=coral user=display password=gOiRiSh") or die('Could not connect: '
. pg_last_error());

                $query = 'select distinct item from resmgr.reservation';

                $querydata = pg_query($dbconn, "$query");

                while($e=pg_fetch_array($querydata))

                {

                      $output2[]=$e['item'];

                }sort($output2);

                foreach ($output2 as $value){

                      echo '<option value="', "{$value}", '" name =
"machine"','>';

                      echo $value;

                      echo '</option>';}

pg_close($dbconn);


echo '</select>', '<br>','<br>','<br>';

echo '<input type="submit" value ="submit">';

echo '</div>';


echo '</form>';

/*echo '<form action="../graphs/Custom_Plots.php" method="post">';

echo '<div align="center">';

echo'<select name="group">';
```

```
$User = $_SERVER['PHP_AUTH_USER'];

echo $User;

$result = mysql_query("SELECT name FROM Groups WHERE owner='$User'") or
die ("Can't select table");

while($e=mysql_fetch_assoc($result))

   $output[]=$e['name'];


sort($output);




$size = sizeof($output);

$i=1;

foreach ($output as $value){

    echo '<option value="', "{$value}", '">';

      echo $value;

      echo '</option>';}

echo '</select>','<br>';

echo '<input type="submit" value="submit">';

echo '</div>';

echo '</form>';*/


mysql_close();

?>

</body>

</html>
```

## 49. readCSV3.htm

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN"
"http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<title>Machines Example</title>
           <!-- 1. Add these JavaScript inclusions in the head of your
page -->
           <script type="text/javascript"
src="http://ajax.googleapis.com/ajax/libs/jquery/1.4.2/jquery.min.js"></s
cript>
           <script type="text/javascript"
src="../graphs/js/highcharts.js"></script>

           <!-- 1a) Optional: add a theme file -->

             <script type="text/javascript"
src="../graphs/js/themes/gray.js"></script>


           <!-- 1b) Optional: the exporting module -->
           <script type="text/javascript"
src="../graphs/js/modules/exporting.js"></script>


           <!-- 2. Add the JavaScript to initialize the chart on
document ready -->
           <script type="text/javascript">

var options = {
    chart: {
        renderTo: 'container',
        defaultSeriesType: 'column'
    },
    title: {
        text: 'Machine Usage by User'
    },
    xAxis: {
        categories: []
    },
    yAxis: {
        title: {
            text: 'hours'
        }
    },
    series: []
};

$.get('mach_data_by_user.csv', function(data) {
    // Split the lines
    var lines = data.split('\n');
```

```
    // Iterate over the lines and add categories or series
    $.each(lines, function(lineNo, line) {
        var items = line.split(',');

        // header line containes categories
        if (lineNo == 0) {
            $.each(items, function(itemNo, item) {
                if (itemNo > 0) options.xAxis.categories.push(item);
            });
        }

        // the rest of the lines contain data with their name in the
first position
        else {
            var series = {
                data: []
            };
            $.each(items, function(itemNo, item) {
                if (itemNo == 0) {
                    series.name = item;
                } else {
                    series.data.push(parseFloat(item));
                }
            });

           options.series.push(series);

        }

    });

    // Create the chart
    var chart = new Highcharts.Chart(options);
});

</script>
</head>
     <body>

           <!-- 3. Add the container -->
           <div id="container" style="width: 300px; height: 400px;
margin: 0 auto"></div>


     </body>
</html>
```

## 50. reservations.css

```
table
{
border-collapse:collapse;
}
table, td, th
{
border:1px solid #E0F574;
}
table
{
width:50%;
}
th
{
height:50px;
}
td
{
text-align:center;
}
td
{
height:50px;
vertical-align:bottom;
}
table, td, th
{
border:1px solid #E0F574;
}
th
{
background-color:#E0F574;
color:black;
}
thead
{
font-family:"Trebuchet MS", Arial, Helvetica, sans-serif;
}
```

## 51. reservations.php

```
<html>
<link rel="stylesheet" type="text/css" href="reservations.css" />
<?php



//Connect
    $dbconn = pg_connect("host=anemone.nano.nd.edu dbname=coral
user=display password=gOiRiSh") or die('Could not connect: //' .
pg_last_error());

$query = pg_query($dbconn, "SELECT current_date + integer '7'");
$day1 = pg_fetch_array($query);
$query = pg_query($dbconn, "select current_date - integer '7'");
$day7 = pg_fetch_array($query);

$bdate = $day7[0];
$machine=$_POST['machines'];
$edate = $day1[0];

$query = "select agent,bdate,edate from resmgr.reservation where stale=0
and bdate>'$bdate' and edate<'$edate' and item = '$machine'";


$querydata = pg_query($dbconn, "$query");
while($e=pg_fetch_assoc($querydata))
{
   $output[]=$e['agent'];
$output1[]=$e['bdate'];
$output2[]=$e['edate'];

}

$size = sizeof($output);
//$times = floor($size/3);
//$residue = $size%3;
$i=0;
echo '<table id="reservations">';
echo '<thead>', '<tr>', '<th scope="col" id="user">NetID</th>';
echo '<th>', 'Begin date', '</th>';
echo '<th>', 'End date', '</th>', '</tr>', '</thead>';
echo '<tbody>';

for($i;$i<$size;$i++){

      echo '<tr>';
      echo '<td>', $output[$i], '</td>';
      echo '<td>', $output1[$i], '</td>';
      echo '<td>', $output2[$i], '</td>';

      echo '</tr>';
```

```
}

//$i=0;
//for($i;$i<$residue;$i++){
      //echo '<tr>';
      //echo '<td>', $output[$i], '</td>';
      //echo '<td>', $output1[$i], '</td>';
      //echo '<td>', $output2[$i], '</td>';
      //echo '</tr>';
      //$i=$i+1;}

echo '</tbody>', '</table>';




pg_close($dbconn);

?>
</html>
```

## 52. super.php

```
<?php
 mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

$result = mysql_query("SELECT lastdate FROM users2 ORDER BY lastdate
DESC") or die ("Can't select table");
$data = mysql_fetch_array($result);
$lastdate = $data['lastdate'];

$result2 = mysql_query("SELECT user FROM users2 where super = 'YES'") or
die (mysql_error());
while($resultdata = mysql_fetch_assoc($result2))
      $users[] = $resultdata['user'];

for($i=0;$i<count($users);$i++){
      $result3 = mysql_query("SELECT day FROM users2 WHERE user =
'$users[$i]' and lastdate = '$lastdate'") or die(mysql_error());
      $data3 = mysql_fetch_array($result3);
      $userstime[$i] = $data3['day'];
      if ($userstime[$i] == ''){
      $userstime[$i] = '00:00:00';
      }
      $temp3 = $users[$i];
      $nametemp = mysql_query("SELECT REPLACE ('$temp3',' ','')") or
die(mysql_error());
        $nametemp1 = mysql_fetch_array($nametemp);
```

```
        $nametable = $nametemp1[0];
        $nametable2 = $nametable . "_By_Day";
      for($j=1;$j<7;$j++){
            $result4 = mysql_query("SELECT time from $nametable2 where
date = date_sub('$lastdate',interval $j day)") or die(mysql_error());
            $data4 = mysql_fetch_array($result4);
            $temp = $userstime[$i];
            $temp2 = $data4['time'];
            if($temp2 == ''){
            $temp2 = '00:00:00';
            }
            $result5 = mysql_query("SELECT ADDTIME('$temp','$temp2')") or
die(mysql_error());
            $data5 = mysql_fetch_array($result5);
            $temp4 = $data5[0];
            if($j==6)
                  $userstime[$i] = $temp4;
}

}

array_multisort($userstime, SORT_DESC,$users);



for($k=0,$k<5;$k++){
echo $users[$k] . "\n";
}


?>
```

## 53. topusers.php

```
<html>
<link rel="stylesheet" type="text/css" href="reservations.css" />
<?php


      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      $result = mysql_query("SELECT day FROM users2 WHERE lastdate =
CURDATE()") or die ("Can't select table");
      while ($e = mysql_fetch_array($result))
      $totalTime[]=$e['day'];
      rsort($totalTime);
      for($i=0;$i<10;$i++){
         $result = mysql_query("SELECT user FROM users2 WHERE day
='$totalTime[$i]' ") or die ("Can't select table");
         $user1=mysql_fetch_assoc($result);
         $userTot[] = $user1['user'];
      }

   echo '<b>','Top Users for Today','</b>','<br>';
   echo '<table id="reservations">';
   echo '<thead>', '<tr>', '<th scope="col" id="user">User Name</th>';
   echo '<th>', 'Time (hh:mm:ss)', '</th>';
   echo '</tr>', '</thead>';
   echo '<tbody>';

      for($i=0;$i<10;$i++){
      if ($userTot[$i]!="" && $totalTime[$i]!='00:00:00')
      {
      echo '<tr>';
      echo '<td>', $userTot[$i], '</td>';
      echo '<td>', $totalTime[$i], '</td>';

      echo '</tr>';
      }
      }


    mysql_close();
?>
```

## 54. Users.php

```
<html>

<?php


      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      $q=mysql_query("SELECT * FROM users");

      while($e=mysql_fetch_assoc($q))
      {
              $name[]=$e['user'];
              $time[]=$e['tin'];
      }

      $i=0;
     echo'<font color="#CC6633">';
echo '<div align="center">';
echo '<b>';
echo 'Current Users','<br>','<br>';
echo '</b>';

      $i=0;

      for ($i; $i<sizeof($name); $i++)
      {

        echo  $name[$i], '<br>';



      }
echo '</div>';
echo'</font>';

    mysql_close();
?>
```

# Passwords

## 55. checkpassword.php

```
<?php
      // This script allows the android app to check if someone's
password is valid
      mysql_connect("localhost","root","WafersD11");

      mysql_select_db("ndnfinfo");

      $q=mysql_query("SELECT *
                      FROM logins");

      while($e=mysql_fetch_assoc($q))
              $output[]=$e;

           print(json_encode($output));

    mysql_close();
?>
```

# Android Source Code

# com.seniordesign

## 56. AndroidManifest.xml

```
<?xml version="1.0" encoding="utf-8" ?>
- <manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.seniordesign" android:versionCode="1" android:versionName="1.0">
  <uses-sdk android:minSdkVersion="7" />
- <application android:icon="@drawable/icon" android:label="@string/app_name">
- <activity android:name=".Main" android:label="@string/app_name">
- <intent-filter>
  <action android:name="android.intent.action.MAIN" />
  <category android:name="android.intent.category.LAUNCHER" />
    </intent-filter>
    </activity>
  <activity android:name=".rankings" android:label="@string/app_name" />
  <activity android:name=".history" android:label="@string/app_name" />
  <activity android:name=".showhis" android:label="@string/app_name" />
  <activity android:name=".mainpage" android:label="@string/app_name" />
  <activity android:name=".showres" android:label="@string/app_name" />
  <activity android:name=".graphs" android:label="@string/app_name" />
  <activity android:name=".users" android:label="@string/app_name" />
  <activity android:name=".machines" android:label="@string/app_name" />
  <activity android:name=".reservations" android:label="@string/app_name" />
  <activity android:name=".connect" android:theme="@android:style/Theme.NoTitleBar"
    android:label="@string/app_name" />
```

```
  </application>

<uses-permission android:name="android.permission.INTERNET" />

  </manifest>

<?xml version="1.0" encoding="utf-8" ?>

  </manifest>
```

## 57. connect.java

```
  package com.seniordesign;

  import android.app.TabActivity;
  import android.content.Intent;
  import android.content.res.Resources;
  import android.os.Bundle;
  import android.widget.TabHost;
  import android.widget.TextView;


  public class connect extends TabActivity {
  /** Called when the activity is first created. */
     TextView txt;
  @Override
  public void onCreate(Bundle savedInstanceState) {
      super.onCreate(savedInstanceState);
      setContentView(R.layout.main);
      Resources res = getResources();
      TabHost tabHost = getTabHost();
      TabHost.TabSpec spec;
      Intent intent;

      // Create an Intent to launch an Activity for the tab (to be
  reused)
      intent = new Intent().setClass(this, users.class);

      // Initialize a TabSpec for each tab and add it to the TabHost
      spec = tabHost.newTabSpec("users").setIndicator("Users",
                        res.getDrawable(R.drawable.group))
                    .setContent(intent);
      tabHost.addTab(spec);

      // Do the same for the other tabs
      intent = new Intent().setClass(this, machines.class);
      spec = tabHost.newTabSpec("machines").setIndicator("Machines",
                        res.getDrawable(R.drawable.machine))
                    .setContent(intent);
      tabHost.addTab(spec);
```

```
    intent = new Intent().setClass(this, rankings.class);
    spec = tabHost.newTabSpec("rankings").setIndicator("Rankings",
                      res.getDrawable(R.drawable.ranking))
                  .setContent(intent);
    tabHost.addTab(spec);

    tabHost.setCurrentTab(2);


}

}
```

## 58. graphs.java

```
package com.seniordesign;

import android.app.Activity;
import android.os.Bundle;
import android.webkit.WebView;

public class graphs extends Activity {
    /** Called when the activity is first created. */
     WebView mWebView;
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.webview);

        mWebView = (WebView) findViewById(R.id.webview);
        mWebView.getSettings().setJavaScriptEnabled(true);

mWebView.loadUrl("http://ndnfinfo.ee.nd.edu/graphs/readcsv3.htm");
    }
}
```

## 59. history.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;
import java.util.Calendar;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
```

```
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.app.DatePickerDialog;
import android.app.Dialog;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.DialogInterface.OnClickListener;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

public class history extends Activity implements OnClickListener {
    /** Called when the activity is first created. */
    private TextView mDateDisplay;
    private Button mPickDate;
    private TextView mDateDisplay2;
    private TextView mPickDate2;
    private int mYear;
    private int mMonth;
    private int mDay;

    private int mYear2;
    private int mMonth2;
    private int mDay2;

    static final int DATE_DIALOG_ID = 0;
    static final int DATE_DIALOG_ID2 = 1;

    ArrayList<String> users = new ArrayList<String>();

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.history);

        // capture our View elements
        mDateDisplay = (TextView) findViewById(R.id.StartTime);
        mPickDate = (Button) findViewById(R.id.pickBDate);
```

```
        mDateDisplay2 = (TextView) findViewById(R.id.EndTime);
        mPickDate2 = (Button) findViewById(R.id.pickEDate);


        String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/usernames.php";
          InputStream is = null;
          String result = "";
          ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
          nameValuePairs.add(new BasicNameValuePair("machine","RIE"));
          try{
                  HttpClient httpclient = new DefaultHttpClient();
                  HttpPost httppost = new HttpPost(KEY_121);
                  httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                  HttpResponse response =
httpclient.execute(httppost);
                  HttpEntity entity = response.getEntity();
                  is = entity.getContent();

          }catch(Exception e){
                  Log.e("log_tag", "Error in http connection
"+e.toString());
          }
          try{
                  BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                  StringBuilder sb = new StringBuilder();
                  String line = null;
                  while ((line = reader.readLine()) != null) {
                          sb.append(line + "\n");
                  }
                  is.close();
                  result=sb.toString();
          }catch(Exception e){
                  Log.e("log_tag", "Error converting result
"+e.toString());
          }
          //parse json data
          try{
                  JSONArray jArray = new JSONArray(result);
                  for(int i=0;i<jArray.length();i++){
                          JSONObject json_data =
jArray.getJSONObject(i);
                          //Get an output to the screen
                     users.add(json_data.getString("user"));
                  }
          }catch(JSONException e){
                  Log.e("log_tag", "Error parsing data
"+e.toString());
          }
```

```
        AutoCompleteTextView textView = (AutoCompleteTextView)
findViewById(R.id.selectuser);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
R.layout.list_item, users);
        textView.setAdapter(adapter);



        // add a click listener to the button
        mPickDate.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                showDialog(DATE_DIALOG_ID);
            }
        });

        mPickDate2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                showDialog(DATE_DIALOG_ID2);
            }
        });
        // get the current date
        final Calendar c = Calendar.getInstance();
        mYear = c.get(Calendar.YEAR);
        mMonth = c.get(Calendar.MONTH);
        mDay = c.get(Calendar.DAY_OF_MONTH);

        mYear2 = c.get(Calendar.YEAR);
        mMonth2= c.get(Calendar.MONTH);
        mDay2 = c.get(Calendar.DAY_OF_MONTH);

        // display the current date (this method is below)
        updateDisplay();

        Button button = (Button)this.findViewById(R.id.button1);
        button.setOnClickListener(new ButtonListener1());
    }

      public void onClick(DialogInterface arg0, int arg1) {
            // TODO Auto-generated method stub

      }
    private class ButtonListener1 implements View.OnClickListener{
      public void onClick(View v){
            AutoCompleteTextView select =  (AutoCompleteTextView)
findViewById(R.id.selectuser);
            String user = select.getText().toString();
               String delims = " ";
               String[] tokens = user.split(delims);
               String name = "";
               for (int i=0;i<tokens.length;i++)
```

```
                name += tokens[i];
          String stime = mYear + "-" + (mMonth+1) + "-" + mDay;
          String etime = mYear2 + "-" + (mMonth2+1) + "-" + mDay2;
          name = name + "!" +stime + "!" + etime;
               Intent myIntent = new Intent();

myIntent.setClassName("com.seniordesign","com.seniordesign.showhis");
                myIntent.putExtra("info",name);
                startActivity(myIntent);
     }
    }


    private void updateDisplay() {
        mDateDisplay.setText(
            new StringBuilder()
                    // Month is 0 based so add 1
                    .append(mMonth + 1).append("-")
                    .append(mDay).append("-")
                    .append(mYear).append(" "));
        mDateDisplay2.setText(
                new StringBuilder()
                        // Month is 0 based so add 1
                        .append(mMonth2 + 1).append("-")
                        .append(mDay2+1).append("-")
                        .append(mYear2).append(" "));
    }

    private DatePickerDialog.OnDateSetListener mDateSetListener =
        new DatePickerDialog.OnDateSetListener() {
            @Override
            public void onDateSet(DatePicker view, int year,
                                  int monthOfYear, int dayOfMonth) {
                mYear = year;
                mMonth = monthOfYear;
                mDay = dayOfMonth;
                updateDisplay();
            }
        };
    private DatePickerDialog.OnDateSetListener mDateSetListener2 =
            new DatePickerDialog.OnDateSetListener() {
                @Override
                public void onDateSet(DatePicker view, int year,
                                      int monthOfYear, int
dayOfMonth) {
                    mYear2 = year;
                    mMonth2 = monthOfYear;
                    mDay2 = dayOfMonth;
                    updateDisplay();
                }
            };
```

```
        @Override
        protected Dialog onCreateDialog(int id) {
            switch (id) {
            case DATE_DIALOG_ID:
                return new DatePickerDialog(this,
                            mDateSetListener,
                            mYear, mMonth, mDay);
            case DATE_DIALOG_ID2:
                 return new DatePickerDialog(this,
                                mDateSetListener2,
                                mYear2, mMonth2, mDay2);
            }
            return null;
        }
}
```

## 60. machines.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
import android.widget.LinearLayout;
import android.widget.TextView;




public class machines extends Activity{
     TextView txt;
```

```
   public void onCreate(Bundle savedInstanceState) {
     super.onCreate(savedInstanceState);
     LinearLayout rootLayout = new
LinearLayout(getApplicationContext());
     txt = new TextView(getApplicationContext());
     rootLayout.addView(txt);
     setContentView(rootLayout);
     txt.setText("Connecting...");
     txt.setText(getServerData(KEY_121));
}


    public static final String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/machine_statuses.php";
    private String getServerData(String returnString) {

       InputStream is = null;

       String result = "";
       String output = "";
        ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
        nameValuePairs.add(new BasicNameValuePair("user","Matt"));
        try{
                HttpClient httpclient = new DefaultHttpClient();
                HttpPost httppost = new HttpPost(KEY_121);
                httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                HttpResponse response = httpclient.execute(httppost);
                HttpEntity entity = response.getEntity();
                is = entity.getContent();

        }catch(Exception e){
                Log.e("log_tag", "Error in http connection
"+e.toString());
        }
        try{
                BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                StringBuilder sb = new StringBuilder();
                String line = null;
                while ((line = reader.readLine()) != null) {
                        sb.append(line + "\n");
                }
                is.close();
                result=sb.toString();
        }catch(Exception e){
                Log.e("log_tag", "Error converting result
"+e.toString());
        }
        //parse json data
        try{
```

```
                output += "Machines Currently Down:\n\n";
                JSONArray jArray = new JSONArray(result);
                for(int i=0;i<jArray.length();i++){
                        JSONObject json_data =
jArray.getJSONObject(i);
                        //Get an output to the screen
                        output += json_data.getString("name")+"\n\n";
                }
        }catch(JSONException e){
                Log.e("log_tag", "Error parsing data "+e.toString());
        }
        return output;
   }
}
```

## 61. Main.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.DialogInterface.OnClickListener;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class Main extends Activity implements OnClickListener {
    /** Called when the activity is first created. */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.startup);


    Button button = (Button)this.findViewById(R.id.button1);
    button.setOnClickListener(new ButtonListener1());
    }

      public void onClick(DialogInterface arg0, int arg1) {
           // TODO Auto-generated method stub

      }

      public static final String KEY_121 =
"http://ndnfinfo.ee.nd.edu/passwords/checkpassword.php";
    private class ButtonListener1 implements View.OnClickListener{
      public void onClick(View v){
        Intent myIntent = new Intent();

myIntent.setClassName("com.seniordesign","com.seniordesign.mainpage")
;
        startActivity(myIntent);
          EditText name =  (EditText) findViewById(R.id.editText1);
          EditText pword =  (EditText) findViewById(R.id.editText2);
        String username = name.getText().toString();
          String password = pword.getText().toString();
          InputStream is = null;

          String result = "";
          ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
          nameValuePairs.add(new BasicNameValuePair("user","Matt"));
          try{
                      HttpClient httpclient = new DefaultHttpClient();
                      HttpPost httppost = new HttpPost(KEY_121);
                      httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                      HttpResponse response =
httpclient.execute(httppost);
                      HttpEntity entity = response.getEntity();
                      is = entity.getContent();

              }catch(Exception e){
                      Log.e("log_tag", "Error in http connection
"+e.toString());
              }
              try{
                      BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                      StringBuilder sb = new StringBuilder();
                      String line = null;
                      while ((line = reader.readLine()) != null) {
                              sb.append(line + "\n");
```

```
                    }
                    is.close();
                    result=sb.toString();
            }catch(Exception e){
                    Log.e("log_tag", "Error converting result
"+e.toString());
            }
            //parse json data
            try{
                    JSONArray jArray = new JSONArray(result);
                    for(int i=0;i<jArray.length();i++){
                       JSONObject json_data =
jArray.getJSONObject(i);
                       String user = json_data.getString("user");
                       String paword =
json_data.getString("password");

                       //if (username.equals(user) &&
password.equals(paword)){
                       //  Intent myIntent = new Intent();
                         //
myIntent.setClassName("com.seniordesign","com.seniordesign.mainpage")
;
                          //  startActivity(myIntent);
                       //}
                    }
           }
            catch(JSONException e)
            {}
}
}
}
```

## 62. mainpage.java

```
package com.seniordesign;

import android.app.Activity;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.DialogInterface.OnClickListener;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class mainpage extends Activity implements OnClickListener {
    /** Called when the activity is first created. */
    @Override
```

```
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.homepage);
        Button button = (Button)this.findViewById(R.id.button1);
        button.setOnClickListener(new ButtonListener1());
        Button button2 = (Button)this.findViewById(R.id.button2);
        button2.setOnClickListener(new ButtonListener2());
        Button button3 = (Button)this.findViewById(R.id.button3);
        button3.setOnClickListener(new ButtonListener3());
        Button button4 = (Button)this.findViewById(R.id.button4);
        button4.setOnClickListener(new ButtonListener4());
    }
    private class ButtonListener1 implements View.OnClickListener{
      @Override
      public void onClick(View v){
            Intent myIntent = new Intent();

      myIntent.setClassName("com.seniordesign","com.seniordesign.conne
ct");
            startActivity(myIntent);
      }
    }

    private class ButtonListener2 implements View.OnClickListener{
      @Override
      public void onClick(View v){
            Intent myIntent = new Intent();

      myIntent.setClassName("com.seniordesign","com.seniordesign.reser
vations");
            startActivity(myIntent);
      }
    }

    private class ButtonListener3 implements View.OnClickListener{
      @Override
      public void onClick(View v){
            Intent myIntent = new Intent();

      myIntent.setClassName("com.seniordesign","com.seniordesign.histo
ry");
            startActivity(myIntent);
      }
    }

    private class ButtonListener4 implements View.OnClickListener{
      @Override
      public void onClick(View v){
            Intent myIntent = new Intent();

      myIntent.setClassName("com.seniordesign","com.seniordesign.graph
s");
```

```
            startActivity(myIntent);
      }
    }
      @Override
      public void onClick(DialogInterface dialog, int which) {
            // TODO Auto-generated method stub

      }

}
```

## 63. rankings.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
import android.widget.LinearLayout;
import android.widget.TextView;




public class rankings extends Activity{
      TextView txt;
   public void onCreate(Bundle savedInstanceState) {
```

```
     super.onCreate(savedInstanceState);
     LinearLayout rootLayout = new
LinearLayout(getApplicationContext());
     txt = new TextView(getApplicationContext());
     rootLayout.addView(txt);
     setContentView(rootLayout);
     txt.setText("Connecting...");
     txt.setText(getServerData(KEY_121));

}


    public static final String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/rankings.php";
    private String getServerData(String returnString) {

       InputStream is = null;

       String result = "";
       String output = "";
        ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
        nameValuePairs.add(new BasicNameValuePair("user","Matt"));
        try{
                HttpClient httpclient = new DefaultHttpClient();
                HttpPost httppost = new HttpPost(KEY_121);
                httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                HttpResponse response = httpclient.execute(httppost);
                HttpEntity entity = response.getEntity();
                is = entity.getContent();

        }catch(Exception e){
                Log.e("log_tag", "Error in http connection
"+e.toString());
        }
        try{
                BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                StringBuilder sb = new StringBuilder();
                String line = null;
                while ((line = reader.readLine()) != null) {
                        sb.append(line + "\n");
                }
                is.close();
                result=sb.toString();
        }catch(Exception e){
                Log.e("log_tag", "Error converting result
"+e.toString());
        }
        //parse json data
        try{
```

```
                JSONArray jArray = new JSONArray(result);
                output+="Top Overall Users:\n\n";
                for(int i=0;i<jArray.length();i++){
                        JSONObject json_data =
jArray.getJSONObject(i);
                           output += "Ranking: " + (i+1) + "\n"
                           +"Name:
"+json_data.getString("user")+"\n"+
                            "Total time (hours): " +
json_data.getString("time") + "\n\n";

                }
        }catch(JSONException e){
                Log.e("log_tag", "Error parsing data "+e.toString());
        }
        return output;
   }
}
```

## 64. reservations.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;
import java.util.Calendar;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.app.DatePickerDialog;
import android.app.Dialog;
import android.content.DialogInterface;
import android.content.Intent;
import android.content.DialogInterface.OnClickListener;
import android.os.Bundle;
```

```
import android.util.Log;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

public class reservations extends Activity implements OnClickListener
{
    /** Called when the activity is first created. */
    private TextView mDateDisplay;
    private Button mPickDate;
    private TextView mDateDisplay2;
    private TextView mPickDate2;
    private int mYear;
    private int mMonth;
    private int mDay;

    private int mYear2;
    private int mMonth2;
    private int mDay2;

    static final int DATE_DIALOG_ID = 0;
    static final int DATE_DIALOG_ID2 = 1;

    ArrayList<String> machines = new ArrayList<String>();

    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.date_request);

        // capture our View elements
        mDateDisplay = (TextView) findViewById(R.id.StartTime);
        mPickDate = (Button) findViewById(R.id.pickBDate);

        mDateDisplay2 = (TextView) findViewById(R.id.EndTime);
        mPickDate2 = (Button) findViewById(R.id.pickEDate);


        String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/machinenames.php";
         InputStream is = null;
         String result = "";
         ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
         nameValuePairs.add(new BasicNameValuePair("machine","RIE"));
         try{
                 HttpClient httpclient = new DefaultHttpClient();
                 HttpPost httppost = new HttpPost(KEY_121);
```

```
                httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                HttpResponse response =
httpclient.execute(httppost);
                HttpEntity entity = response.getEntity();
                is = entity.getContent();

        }catch(Exception e){
                Log.e("log_tag", "Error in http connection
"+e.toString());
        }
        try{
                BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                StringBuilder sb = new StringBuilder();
                String line = null;
                while ((line = reader.readLine()) != null) {
                        sb.append(line + "\n");
                }
                is.close();
                result=sb.toString();
        }catch(Exception e){
                Log.e("log_tag", "Error converting result
"+e.toString());
        }
        //parse json data
        try{
                JSONArray jArray = new JSONArray(result);
                for(int i=0;i<jArray.length();i++){
                        JSONObject json_data =
jArray.getJSONObject(i);
                        //Get an output to the screen
                   machines.add(json_data.getString("item"));
                }
        }catch(JSONException e){
                Log.e("log_tag", "Error parsing data
"+e.toString());
        }


        AutoCompleteTextView textView = (AutoCompleteTextView)
findViewById(R.id.selectmach);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
R.layout.list_item, machines);
        textView.setAdapter(adapter);



        // add a click listener to the button
        mPickDate.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                showDialog(DATE_DIALOG_ID);
```

```
            }
        });

        mPickDate2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View v) {
                showDialog(DATE_DIALOG_ID2);
            }
        });
        // get the current date
        final Calendar c = Calendar.getInstance();
        mYear = c.get(Calendar.YEAR);
        mMonth = c.get(Calendar.MONTH);
        mDay = c.get(Calendar.DAY_OF_MONTH);

        mYear2 = c.get(Calendar.YEAR);
        mMonth2= c.get(Calendar.MONTH);
        mDay2 = c.get(Calendar.DAY_OF_MONTH);

        // display the current date (this method is below)
        updateDisplay();

        Button button = (Button)this.findViewById(R.id.button1);
        button.setOnClickListener(new ButtonListener1());
    }

      public void onClick(DialogInterface arg0, int arg1) {
           // TODO Auto-generated method stub

      }
    private class ButtonListener1 implements View.OnClickListener{
      public void onClick(View v){
           AutoCompleteTextView mach =  (AutoCompleteTextView)
findViewById(R.id.selectmach);
            String machine = mach.getText().toString();
          String stime = mYear + "-" + (mMonth+1) + "-" + mDay;
          String etime = mYear2 + "-" + (mMonth2+1) + "-" + mDay2;
          machine = machine + "!" +stime + "!" + etime;
               Intent myIntent = new Intent();

myIntent.setClassName("com.seniordesign","com.seniordesign.showres");
                myIntent.putExtra("info",machine);
                startActivity(myIntent);
      }
    }


    private void updateDisplay() {
        mDateDisplay.setText(
            new StringBuilder()
                    // Month is 0 based so add 1
                    .append(mMonth + 1).append("-")
                    .append(mDay).append("-")
```

```
                    .append(mYear).append(" "));
        mDateDisplay2.setText(
                new StringBuilder()
                        // Month is 0 based so add 1
                        .append(mMonth2 + 1).append("-")
                        .append(mDay2+1).append("-")
                        .append(mYear2).append(" "));
    }

    private DatePickerDialog.OnDateSetListener mDateSetListener =
        new DatePickerDialog.OnDateSetListener() {
            @Override
            public void onDateSet(DatePicker view, int year,
                                  int monthOfYear, int dayOfMonth) {
                mYear = year;
                mMonth = monthOfYear;
                mDay = dayOfMonth;
                updateDisplay();
            }
        };
    private DatePickerDialog.OnDateSetListener mDateSetListener2 =
            new DatePickerDialog.OnDateSetListener() {
                @Override
                public void onDateSet(DatePicker view, int year,
                                      int monthOfYear, int
dayOfMonth) {
                    mYear2 = year;
                    mMonth2 = monthOfYear;
                    mDay2 = dayOfMonth;
                    updateDisplay();
                }
            };

        @Override
        protected Dialog onCreateDialog(int id) {
            switch (id) {
            case DATE_DIALOG_ID:
                return new DatePickerDialog(this,
                            mDateSetListener,
                            mYear, mMonth, mDay);
            case DATE_DIALOG_ID2:
                 return new DatePickerDialog(this,
                                mDateSetListener2,
                                mYear2, mMonth2, mDay2);
            }
            return null;
        }
}
```

## 65. showhis.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
import android.widget.LinearLayout;
import android.widget.ScrollView;
import android.widget.TextView;

public class showhis extends Activity{
        TextView txt;
        @Override
        public void onCreate(Bundle savedInstanceState) {
            super.onCreate(savedInstanceState);
            setContentView(R.layout.show_res);
            ScrollView scroller = new
ScrollView(getApplicationContext());
            LinearLayout rootLayout = new
LinearLayout(getApplicationContext());
            txt = new TextView(getApplicationContext());
            rootLayout.addView(txt);
            scroller.addView(rootLayout);


            setContentView(scroller);
              String info= getIntent().getExtras().getString("info");
              String delims = "!";
            String[] tokens = info.split(delims);
             String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/userhis.php?user=" +tokens[0]+
"&sdate=" +tokens[1] + "&edate=" + tokens[2];
```

```
          InputStream is = null;
               String result = "";
               String printable = "";
               ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
               nameValuePairs.add(new
BasicNameValuePair("machine","RIE"));
               try{
                        HttpClient httpclient = new
DefaultHttpClient();
                        HttpPost httppost = new HttpPost(KEY_121);
                        httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                        HttpResponse response =
httpclient.execute(httppost);
                        HttpEntity entity = response.getEntity();
                        is = entity.getContent();

               }catch(Exception e){
                        Log.e("log_tag", "Error in http connection
"+e.toString());
               }
               try{
                        BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                        StringBuilder sb = new StringBuilder();
                        String line = null;
                        while ((line = reader.readLine()) != null) {
                                sb.append(line + "\n");
                        }
                        is.close();
                        result=sb.toString();
               }catch(Exception e){
                        Log.e("log_tag", "Error converting result
"+e.toString());
               }
               //parse json data
               try{
                        JSONArray jArray = new JSONArray(result);
                        for(int i=0;i<jArray.length();i++){
                                JSONObject json_data =
jArray.getJSONObject(i);
                                //Get an output to the screen
                         printable +=
                           "Start Time: "  +
json_data.getString("tin") + "\n"
                           + "End Time: "  +
json_data.getString("tout") + "\n\n";
                        }
               }catch(JSONException e){
                        Log.e("log_tag", "Error parsing data
"+e.toString());
```

```
            }
            txt.setText(printable);
          }
        }
```

## 66. showres.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
import android.widget.LinearLayout;
import android.widget.ScrollView;
import android.widget.TextView;

public class showres extends Activity{
        TextView txt;
        @Override
        public void onCreate(Bundle savedInstanceState) {
            super.onCreate(savedInstanceState);
            setContentView(R.layout.show_res);
            ScrollView scroller = new
ScrollView(getApplicationContext());
            LinearLayout rootLayout = new
LinearLayout(getApplicationContext());
            txt = new TextView(getApplicationContext());
            rootLayout.addView(txt);
            scroller.addView(rootLayout);


            setContentView(scroller);
              String info= getIntent().getExtras().getString("info");
              String delims = "!";
```

```
           String[] tokens = info.split(delims);
            String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/machres.php?mach=" +tokens[0]+
"&sdate=" +tokens[1] + "&edate=" + tokens[2];
         InputStream is = null;
              String result = "";
              String printable = "";
              ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
              nameValuePairs.add(new
BasicNameValuePair("machine","RIE"));
              try{
                       HttpClient httpclient = new
DefaultHttpClient();
                       HttpPost httppost = new HttpPost(KEY_121);
                       httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                       HttpResponse response =
httpclient.execute(httppost);
                       HttpEntity entity = response.getEntity();
                       is = entity.getContent();

              }catch(Exception e){
                       Log.e("log_tag", "Error in http connection
"+e.toString());
              }
              try{
                       BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                       StringBuilder sb = new StringBuilder();
                       String line = null;
                       while ((line = reader.readLine()) != null) {
                                sb.append(line + "\n");
                       }
                       is.close();
                       result=sb.toString();
              }catch(Exception e){
                       Log.e("log_tag", "Error converting result
"+e.toString());
              }
              //parse json data
              try{
                       JSONArray jArray = new JSONArray(result);
                       for(int i=0;i<jArray.length();i++){
                                JSONObject json_data =
jArray.getJSONObject(i);
                                //Get an output to the screen
                         printable = printable + "Agent:
"+json_data.getString("agent") + "\n"
                            + "Start Time: "  +
json_data.getString("bdate") + "\n"
```

```
                        + "End Time: "  +
json_data.getString("edate") + "\n\n";
                      }
               }catch(JSONException e){
                       Log.e("log_tag", "Error parsing data
"+e.toString());
               }
               txt.setText(printable);
             }
          }
```

## 67. users.java

```
package com.seniordesign;

import java.io.BufferedReader;
import java.io.InputStream;
import java.io.InputStreamReader;
import java.util.ArrayList;

import org.apache.http.HttpEntity;
import org.apache.http.HttpResponse;
import org.apache.http.NameValuePair;
import org.apache.http.client.HttpClient;
import org.apache.http.client.entity.UrlEncodedFormEntity;
import org.apache.http.client.methods.HttpPost;
import org.apache.http.impl.client.DefaultHttpClient;
import org.apache.http.message.BasicNameValuePair;
import org.json.JSONArray;
import org.json.JSONException;
import org.json.JSONObject;

import android.app.Activity;
import android.os.Bundle;
import android.util.Log;
import android.widget.LinearLayout;
import android.widget.TextView;




public class users extends Activity{
     TextView txt;
   public void onCreate(Bundle savedInstanceState) {
     super.onCreate(savedInstanceState);
```

```
     LinearLayout rootLayout = new
LinearLayout(getApplicationContext());
     txt = new TextView(getApplicationContext());
     rootLayout.addView(txt);
     setContentView(rootLayout);
     txt.setText(getServerData(KEY_121));

}


    public static final String KEY_121 =
"http://ndnfinfo.ee.nd.edu/android/users.php";
    private String getServerData(String returnString) {

       InputStream is = null;

       String result = "";
       String output = "";
        ArrayList<NameValuePair> nameValuePairs = new
ArrayList<NameValuePair>();
        nameValuePairs.add(new BasicNameValuePair("user","Matt"));
        try{
                HttpClient httpclient = new DefaultHttpClient();
                HttpPost httppost = new HttpPost(KEY_121);
                httppost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
                HttpResponse response = httpclient.execute(httppost);
                HttpEntity entity = response.getEntity();
                is = entity.getContent();

        }catch(Exception e){
                Log.e("log_tag", "Error in http connection
"+e.toString());
        }
        try{
                BufferedReader reader = new BufferedReader(new
InputStreamReader(is,"iso-8859-1"),8);
                StringBuilder sb = new StringBuilder();
                String line = null;
                while ((line = reader.readLine()) != null) {
                        sb.append(line + "\n");
                }
                is.close();
                result=sb.toString();
        }catch(Exception e){
                Log.e("log_tag", "Error converting result
"+e.toString());
        }
        //parse json data
        try{
                JSONArray jArray = new JSONArray(result);
                for(int i=0;i<jArray.length();i++){
```

```
                        JSONObject json_data =
jArray.getJSONObject(i);
                        //Get an output to the screen
                        output += "Name:
"+json_data.getString("user")+"\n"+
                        "Time in:
"+json_data.getString("tin")+"\n\n";
                    }
            }catch(JSONException e){
                    Log.e("log_tag", "Error parsing data "+e.toString());
            }
            return output;
    }
}
```

# res/layout

## 68. date_request.xml

```
<?xml version="1.0" encoding="utf-8" ?>
- <RelativeLayout android:id="@+id/widget43" android:layout_width="fill_parent"
  android:layout_height="fill_parent"
  xmlns:android="http://schemas.android.com/apk/res/android">

  <TextView android:id="@+id/Start" android:textSize="18sp"
  android:layout_centerVertical="true" android:textStyle="italic" android:text="Start
  Time: \n\n" android:shadowRadius="1.5" android:shadowDx="1"
  android:shadowDy="1" android:shadowColor="#00ccff"
  android:layout_width="wrap_content" android:layout_height="wrap_content" />

  <TextView android:id="@+id/machine" android:textSize="18sp"
  android:layout_above="@+id/Start" android:textStyle="italic" android:text="Machine:
  \n\n" android:shadowRadius="1.5" android:shadowDx="1" android:shadowDy="1"
  android:shadowColor="#00ccff" android:layout_width="wrap_content"
  android:layout_height="wrap_content" />

  <TextView android:id="@+id/End" android:textSize="18sp"
  android:layout_below="@+id/Start" android:textStyle="italic" android:text="End
  Time:" android:shadowRadius="1.5" android:shadowDx="1" android:shadowDy="1"
  android:shadowColor="#00ccff" android:layout_width="wrap_content"
  android:layout_height="wrap_content" />

  <TextView android:id="@+id/StartTime" android:textSize="18sp"
  android:layout_toRightOf="@+id/Start" android:layout_alignBaseline="@+id/Start"
  android:layout_width="wrap_content" android:layout_height="wrap_content"
  android:text="04-01-2011" />
```

```
<TextView android:id="@+id/EndTime" android:textSize="18sp"
  android:layout_toRightOf="@+id/End" android:layout_alignBaseline="@+id/End"
  android:layout_width="wrap_content" android:layout_height="wrap_content"
  android:text="04-04-2011" />

<AutoCompleteTextView android:id="@+id/selectmach" android:textSize="18sp"
  android:layout_toRightOf="@+id/machine"
  android:layout_alignBaseline="@+id/machine" android:layout_width="150sp"
  android:layout_height="wrap_content" android:singleLine="true" />

<Button android:id="@+id/pickBDate" android:textSize="14sp"
  android:layout_alignParentRight="true" android:layout_alignBaseline="@+id/StartTime"
  android:layout_width="100sp" android:layout_height="wrap_content"
  android:singleLine="true" android:text="Begin Date" />

<Button android:id="@+id/pickEDate" android:textSize="14sp"
  android:layout_alignParentRight="true" android:layout_alignBaseline="@+id/EndTime"
  android:layout_width="100sp" android:layout_height="wrap_content"
  android:singleLine="true" android:text="End Date" />

<TextView android:id="@+id/title" android:layout_centerHorizontal="true"
  android:textSize="18sp" android:layout_height="wrap_content" android:text="Check
  Reservations" android:shadowRadius="1.5" android:shadowDx="1"
  android:shadowDy="1" android:shadowColor="#00ccff"
  android:layout_width="wrap_content" />

<Button android:id="@+id/button1" android:layout_centerHorizontal="true"
  android:text="Submit" android:textSize="18sp" android:layout_height="wrap_content"
  android:layout_width="wrap_content" android:layout_alignParentBottom="true" />

</RelativeLayout>
```

## 69. history.xml

```
<?xml version="1.0" encoding="utf-8" ?>

- <RelativeLayout android:id="@+id/widget43" android:layout_width="fill_parent"
  android:layout_height="fill_parent"
  xmlns:android="http://schemas.android.com/apk/res/android">

<TextView android:id="@+id/Start" android:textSize="18sp"
  android:layout_centerVertical="true" android:textStyle="italic" android:text="Start
  Time: \n\n" android:shadowRadius="1.5" android:shadowDx="1"
  android:shadowDy="1" android:shadowColor="#00ccff"
  android:layout_width="wrap_content" android:layout_height="wrap_content" />

<TextView android:id="@+id/user" android:textSize="18sp"
  android:layout_above="@+id/Start" android:textStyle="italic" android:text="User's
```

```
    Name: \n\n" android:shadowRadius="1.5" android:shadowDx="1"
    android:shadowDy="1" android:shadowColor="#00ccff"
    android:layout_width="wrap_content" android:layout_height="wrap_content" />

<TextView android:id="@+id/End" android:textSize="18sp"
    android:layout_below="@+id/Start" android:textStyle="italic" android:text="End
    Time:" android:shadowRadius="1.5" android:shadowDx="1" android:shadowDy="1"
    android:shadowColor="#00ccff" android:layout_width="wrap_content"
    android:layout_height="wrap_content" />

<TextView android:id="@+id/StartTime" android:textSize="18sp"
    android:layout_toRightOf="@+id/Start" android:layout_alignBaseline="@+id/Start"
    android:layout_width="wrap_content" android:layout_height="wrap_content"
    android:text="04-01-2011" />

<TextView android:id="@+id/EndTime" android:textSize="18sp"
    android:layout_toRightOf="@+id/End" android:layout_alignBaseline="@+id/End"
    android:layout_width="wrap_content" android:layout_height="wrap_content"
    android:text="04-04-2011" />

<AutoCompleteTextView android:id="@+id/selectuser" android:textSize="18sp"
    android:layout_toRightOf="@+id/user" android:layout_alignBaseline="@+id/user"
    android:layout_width="150sp" android:layout_height="wrap_content"
    android:singleLine="true" />

<Button android:id="@+id/pickBDate" android:textSize="14sp"
    android:layout_alignParentRight="true" android:layout_alignBaseline="@+id/StartTime"
    android:layout_width="100sp" android:layout_height="wrap_content"
    android:singleLine="true" android:text="Begin Date" />

<Button android:id="@+id/pickEDate" android:textSize="14sp"
    android:layout_alignParentRight="true" android:layout_alignBaseline="@+id/EndTime"
    android:layout_width="100sp" android:layout_height="wrap_content"
    android:singleLine="true" android:text="End Date" />

<TextView android:id="@+id/title" android:layout_centerHorizontal="true"
    android:textSize="18sp" android:layout_height="wrap_content" android:text="View
    Session History" android:shadowRadius="1.5" android:shadowDx="1"
    android:shadowDy="1" android:shadowColor="#00ccff"
    android:layout_width="wrap_content" />

<Button android:id="@+id/button1" android:layout_centerHorizontal="true"
    android:text="Submit" android:textSize="18sp" android:layout_height="wrap_content"
    android:layout_width="wrap_content" android:layout_alignParentBottom="true" />

    </RelativeLayout>
```

## 70. homepage.xml

```
<?xml version="1.0" encoding="utf-8" ?>

- <RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical" android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:background="@drawable/appbackground">

  <TextView android:layout_width="fill_parent" android:layout_height="wrap_content"
    android:text="Hello, Lab User!" />

  <TextView android:id="@+id/textView1" android:layout_height="wrap_content"
    android:layout_centerHorizontal="true" android:text="NDNFINFO\nHomepage"
    android:shadowRadius="1.5" android:shadowDx="1" android:shadowDy="1"
    android:textColor="#4169e1" android:shadowColor="#000000"
    android:textStyle="bold" android:textSize="30sp"
    android:layout_width="wrap_content" />

  <Button android:id="@+id/button1" android:layout_height="wrap_content"
    android:text="View Top Users/Machine Statuses" android:layout_width="150sp"
    android:layout_above="@+id/button2" android:layout_centerHorizontal="true" />

  <Button android:id="@+id/button2" android:layout_height="wrap_content"
    android:text="View Machine Reservations" android:layout_width="150sp"
    android:layout_centerHorizontal="true" android:layout_centerVertical="true" />

  <Button android:id="@+id/button3" android:layout_height="wrap_content"
    android:text="View Session History" android:layout_width="150sp"
    android:layout_below="@+id/button2" android:layout_centerHorizontal="true" />

  <Button android:id="@+id/button4" android:layout_height="wrap_content"
    android:text="Graphs" android:layout_width="150sp"
    android:layout_below="@+id/button3" android:layout_centerHorizontal="true" />

  </RelativeLayout>
```

## 71. list_item.xml

```
<?xml version="1.0" encoding="utf-8" ?>

<TextView xmlns:android="http://schemas.android.com/apk/res/android"
  android:layout_width="fill_parent" android:layout_height="fill_parent"
  android:padding="10dp" android:textSize="16sp" android:textColor="#000" />
```

## 72. main.xml

```
<?xml version="1.0" encoding="utf-8" ?>
- <TabHost xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@android:id/tabhost" android:layout_width="fill_parent"
    android:layout_height="fill_parent">
- <ScrollView android:id="@+id/ScrollView01" android:layout_width="fill_parent"
    android:layout_height="fill_parent">
- <LinearLayout android:orientation="vertical" android:layout_width="fill_parent"
    android:layout_height="fill_parent" android:padding="5dp">
  <TabWidget android:id="@android:id/tabs" android:layout_width="fill_parent"
    android:layout_height="wrap_content" />
  <FrameLayout android:id="@android:id/tabcontent" android:layout_width="fill_parent"
    android:layout_height="fill_parent" android:padding="5dp" />
    </LinearLayout>
    </ScrollView>
    </TabHost>
```

## 73.main2.xml

```
<?xml version="1.0" encoding="utf-8" ?>
- <TableLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent" android:layout_height="fill_parent"
    android:stretchColumns="1">
- <TableRow>
  <TextView android:layout_column="1" android:text="Open..." android:padding="3dip" />
  <TextView android:text="Ctrl-O" android:gravity="right" android:padding="3dip" />
    </TableRow>
- <TableRow>
  <TextView android:layout_column="1" android:text="Save..." android:padding="3dip" />
  <TextView android:text="Ctrl-S" android:gravity="right" android:padding="3dip" />
```

```
    </TableRow>
-   <TableRow>
    <TextView android:layout_column="1" android:text="Save As..." android:padding="3dip"
      />
    <TextView android:text="Ctrl-Shift-S" android:gravity="right" android:padding="3dip" />
    </TableRow>
    <View android:layout_height="2dip" android:background="#FF909090" />
-   <TableRow>
    <TextView android:text="X" android:padding="3dip" />
    <TextView android:text="Import..." android:padding="3dip" />
    </TableRow>
-   <TableRow>
    <TextView android:text="X" android:padding="3dip" />
    <TextView android:text="Export..." android:padding="3dip" />
    <TextView android:text="Ctrl-E" android:gravity="right" android:padding="3dip" />
    </TableRow>
    <View android:layout_height="2dip" android:background="#FF909090" />
-   <TableRow>
    <TextView android:layout_column="1" android:text="Quit" android:padding="3dip" />
    </TableRow>
    </TableLayout>
```

## 74.show_res.xml

```
    <?xml version="1.0" encoding="utf-8" ?>
-   <LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
      android:orientation="vertical" android:layout_width="fill_parent"
      android:layout_height="fill_parent">
```

```
- <ScrollView android:orientation="vertical" android:layout_width="fill_parent"
    android:layout_height="fill_parent">

  <TextView android:layout_width="fill_parent" android:layout_height="fill_parent"
    android:text="@string/hello" />

    </ScrollView>

    </LinearLayout>
```

## 75.startup.xml

```
    <?xml version="1.0" encoding="utf-8" ?>

- <RelativeLayout android:id="@+id/widget43" android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:background="@drawable/apploginbackground">

  <TextView android:id="@+id/textView1" android:textSize="24sp"
    android:layout_centerVertical="true" android:textStyle="italic"
    android:text="Username: \n\n" android:shadowRadius="1.5" android:shadowDx="1"
    android:shadowDy="1" android:textColor="#4169e1" android:shadowColor="#000000"
    android:layout_width="wrap_content" android:layout_height="wrap_content" />

  <TextView android:id="@+id/textView2" android:textSize="24sp"
    android:layout_below="@+id/textView1" android:textStyle="italic"
    android:text="Password: \n" android:shadowRadius="1.5" android:shadowDx="1"
    android:shadowDy="1" android:textColor="#4169e1" android:shadowColor="#000000"
    android:layout_width="200sp" android:layout_height="wrap_content" />

  <EditText android:id="@+id/editText1" android:textSize="24sp"
    android:layout_toRightOf="@+id/textView1"
    android:layout_alignBaseline="@+id/textView1" android:layout_width="150sp"
    android:layout_height="wrap_content" android:singleLine="true" />

  <EditText android:id="@+id/editText2" android:textSize="24sp"
    android:layout_toRightOf="@+id/textView2"
    android:layout_alignBaseline="@+id/textView2"
    android:layout_alignLeft="@+id/editText1" android:layout_width="150sp"
    android:layout_height="wrap_content" android:singleLine="true"
    android:password="true" />

  <TextView android:id="@+id/textView3" android:layout_centerHorizontal="true"
    android:textSize="30sp" android:layout_height="wrap_content"
    android:text="Ndnfinfo Login" android:shadowRadius="1.5" android:shadowDx="1"
```

```
    android:shadowDy="1" android:textColor="#4169e1" android:shadowColor="#000000"
    android:textStyle="bold" android:layout_width="wrap_content" />

<Button android:id="@+id/button1" android:layout_centerHorizontal="true"
    android:text="Submit" android:textSize="25sp" android:layout_height="wrap_content"
    android:layout_width="wrap_content" android:layout_below="@+id/textView2" />

    </RelativeLayout>
```

## 76.webview.xml

```
    <?xml version="1.0" encoding="utf-8" ?>

<WebView xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/webview" android:layout_width="fill_parent"
    android:layout_height="fill_parent" />
```

# iPhone Source Code

## 78. WebAppDelegate.h

```
#import <UIKit/UIKit.h>

@interface WebAppDelegate : NSObject <UIApplicationDelegate> {
    UIWindow *window;
     UIWebView *webView;
}

@property (nonatomic, retain) IBOutlet UIWindow *window;
@property (nonatomic, retain) IBOutlet UIWebView *webView;

@end
```

## 79. WebAppDelegate.m

```
#import "WebAppDelegate.h"

@implementation WebAppDelegate

@synthesize window;
@synthesize webView;


#pragma mark -
#pragma mark Application lifecycle

- (BOOL)application:(UIApplication *)application
didFinishLaunchingWithOptions:(NSDictionary *)launchOptions {
    [webView loadRequest:[NSURLRequest requestWithURL:[NSURL
URLWithString:@"http://ndnfinfo.ee.nd.edu/iphone"]]];
    // Override point for customization after application launch.

    [self.window makeKeyAndVisible];

    return YES;
}


- (void)applicationWillResignActive:(UIApplication *)application {
    /*
     Sent when the application is about to move from active to
inactive state. This can occur for certain types of temporary
interruptions (such as an incoming phone call or SMS message) or when
the user quits the application and it begins the transition to the
background state.
```

```
     Use this method to pause ongoing tasks, disable timers, and
throttle down OpenGL ES frame rates. Games should use this method to
pause the game.
     */
}


- (void)applicationDidEnterBackground:(UIApplication *)application {
    /*
     Use this method to release shared resources, save user data,
invalidate timers, and store enough application state information to
restore your application to its current state in case it is
terminated later.
     If your application supports background execution, called
instead of applicationWillTerminate: when the user quits.
     */
}


- (void)applicationWillEnterForeground:(UIApplication *)application {
    /*
     Called as part of  transition from the background to the
inactive state: here you can undo many of the changes made on
entering the background.
     */
}


- (void)applicationDidBecomeActive:(UIApplication *)application {
    /*
     Restart any tasks that were paused (or not yet started) while
the application was inactive. If the application was previously in
the background, optionally refresh the user interface.
     */
}


- (void)applicationWillTerminate:(UIApplication *)application {
    /*
     Called when the application is about to terminate.
     See also applicationDidEnterBackground:.
     */
}


#pragma mark -
#pragma mark Memory management

- (void)applicationDidReceiveMemoryWarning:(UIApplication
*)application {
    /*
```

```
     Free up as much memory as possible by purging cached data
objects that can be recreated (or reloaded from disk) later.
     */
}


- (void)dealloc {
    [window release];
    [super dealloc];
}


@end
```

## 80. main.m

```
#import <UIKit/UIKit.h>

int main(int argc, char *argv[]) {

    NSAutoreleasePool * pool = [[NSAutoreleasePool alloc] init];
    int retVal = UIApplicationMain(argc, argv, nil, nil);
    [pool release];
    return retVal;
}
```