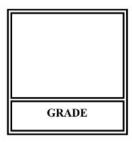
COMPUTER PROGRAMMING 1 (ITC111L)

Classroom Management System



Submitted by:



Boncalos, John Emhar BSIT CEIT-37-102A



Evasco, Darlyn Mae A.BSIT
CEIT-37-102A



Lau-a, Ma. Lourdes E.
BSIT
CEIT-37-102A



Pabiona, Michael John O.
BSIT
CEIT-37-102A



Talinao, Nicole J. BSIT CEIT-37-102A



Zamora, Kimverly A.
BSIT
CEIT-37-102A

Submitted to:

MS. MAY BACERLONA FIGUEROA

Date of Defense

I. Introduction

The modern world is now ruled by technology, which has the capability to make human labor simple and efficient. Systems were developed for variety of goals and uses. Setting up a system for a business is one step closer to innovation, and another way of creating a productive workplace for all employees and consumer. A traditional way of listing or gathering information from a student is to write it on a class record. But, because we live in a modern world and want to help teachers with less paperwork, we came up with this system.

As developers, they create a classroom management system that makes information management more accessible at all times. They imply that this system will help the faculty, parents, and students to easily access information for a certain person or for personal use and to have a greater potential for higher student engagement.

II. DESCRIPTION OF THE PROJECT

A classroom management system is a digital method to display every student's information. It is also to help lessen the teacher's paperwork by storing and keeping track of the students' information. Their project features a log-in system where everyone can create an account to register themselves, a student library where students can encode their information (name, age, gender, address, email account and contact number), all of which is stored in the exterior file of the system, and lastly, it features a way to display all the student's data.

III. OBJECTIVES

The main objective of their system is to develop a classroom management using C++ that can serve as a modern or digital way of sorting and displaying information about different students.

IV. SIGNIFICANCE OF THE STUDY

As developers, they want to have a more convenient way to keep information on track and secure. In their study, they gave importance to those three reasons. The system can benefit teachers, faculty, and students by reducing paperwork and allowing them to easily access the data they require at any time and from any location. Also, it is secure because a significant other can only access the data with the account she or he registers in the system. It is relevant at this time because we are surrounded by technology, and as a result, many people are looking for

other ways to be more convenient about keeping their information but in a safe way.

V. Scope and Delimitations

The system focuses on providing teachers and students a more efficient, easy, and secure way to keep data on every student in a classroom. The study has its own limitations, namely that the system is just for the encoding and viewing of basic information about a student and does not cover the subjects taken by the student.

VI. SCREEN OUTPUT

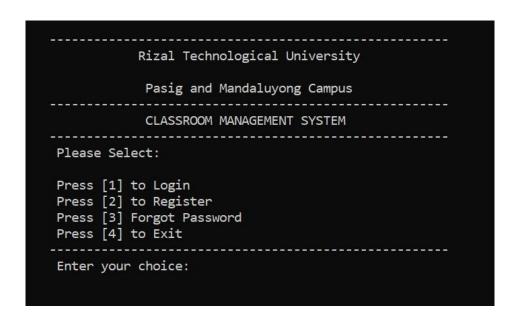
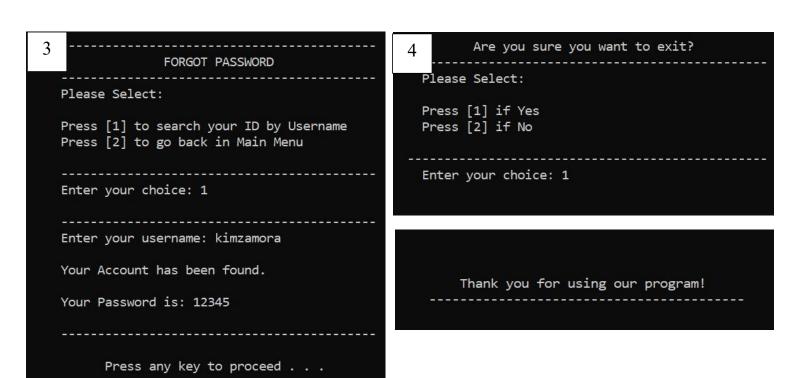


Figure 1. Home Page

Figure 1 shows the option you may choose that include the following:

- 1. **LOGIN** this option will let you login in your registered account.
- 2. **REGISTER** this option will let you register or create your account.
- 3. **FORGOT PASSWORD** this option will let you see your password if it happens that you forgot your password.
- 4. **EXIT** this option will let you exit the home page.

1LOGIN	2 REGISTER
Enter Username: kimzamora	Enter Username: kimzamora
Enter Password: *****	Enter Password: 12345
Login successfull. Hi, kimzamora. Welcome !	Registration successfull !
Press any key to proceed	Press any key to proceed



Rizal Technological University		
Pasig and Mandaluyong Campus		
MAIN PAGE		
Please Select:		
[1] Display All Student [2] Register Data of Student [3] Specify Student Number [4] Logout Account		
Enter your choice:		

Figure 2. Main Page

Figure 2 shows the main page after you register and login in your account, the following option you can choose are:

- **1. DISPLAY ALL STUDENT -** this option will let you view or display all the registered data of all students.
- **2. REGISTER DATA OF STUDENT -** this option will let you register your data or information.
- **3. SPECIFY STUDENT NUMBER** this option will let you find or search someone's data using his/her specific student number.
- **4. LOGOUT ACCOUNT** this option will let you log out on your account.

COLLEGE OF ENGINEERING, ARCHITECHTURE AND TECHNOLOGY

1

```
Rizal Technological University
                                              Pasig and Mandaluyong Campus
                                                 STUDENT DATA
Student ID: 2022-102956
Name: Kimverly A. Zamora
Age: 19
Gender: Female
Address: Block 4 Lot 8 Sec 17 Muzon, San Jose del Monte
Program & Year: BSIT-2022
Email: 2022-102956@rtu.edu.ph
Contact Number: 09457834046
Student ID: 2022-102997
Name: Maria Lourdes Lau-a
Age: 19
Address: Block 1 Lot 1 France Street, Mandaluyong City
Program & Year: BSIT-2022
Email: 2022-102997@rtu.edu.ph
Contact Number: 09682501409
Student ID: 2022-102703
Name: Nicole J. Talinao
Age: 18
Gender: Female
Address: Block 1 Lot 1 France Street, Pasig City
Program & Year: BSIT-2022
Email: 2022-102703
Contact Number: 09205009851
Student ID: 2022-102741
Name: Michael John O. Pabiona
Age: 19
Gender: Male
Address: Blk 1 Lot 1 France Street, Pasig City
Program & Year: BSIT-2022
Email: 2022-102741@rtu.edu.ph
Contact Number: 09120810709
Student ID: 2022-102713
Name: John Emhar Boncalos
Age: 18
Gender: Male
Address: Blk 1 Lot 1 France Street, Makati City
Program & Year: BSIT-2022
Email: 2022-102713@rtu.edu.ph
Contact Number: 0964728832
                                     Press any key to go back to Main Page . . .
```

2

```
Rizal Technological University

Pasig and Mandaluyong Campus

R E G I S T E R N E W S T U D E N T

Student ID: 12345

Student Name (First/Second, Middle, Last): John Emhar Boncalos

Student Age: 18

Student Gender (Male/Female): Male

Student Address (Block#, Lot#, Street, Barangay, City): Blk 05 Lot 10. Switzerland Street, Makati City

Program & Year: 2022-BSIT

Student Email: JEBoncalos@gmail.com

Contact Number: 0968635826

Registration successfull !

Press any key to proceed . . .
```

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3

```
Rizal Technological University
                                     Pasig and Mandaluyong Campus
                                  SEARCH STUDENT DATA
Please Select:
 Press [1] to search your student ID
Press [2] to go back in Main Page
  Enter your choice: 1
 Enter your Student ID: 2022-102956
 Your Student ID has been found.
Student ID: 2022-102956
Name: 0975386381783
Age: KIM
Gender: ZAMORA
Address: 19
Program & Year: FEMALE
Email: RANDOM
Contact Number: 2022-BSIT
                                      Press any key to proceed . . .
```

Are you sure you want to logout your account?

Please Select:

Press [1] if Yes
Press [2] if No

Enter your choice: 1

VII. Source Code

#include <iostream></iostream>
#include <fstream></fstream>
#include <string></string>
#include <conio.h></conio.h>
using namespace std;
//homepage//
<pre>void loginp();</pre>
void registrationp();
<pre>void forgotp();</pre>
<pre>void exitp();</pre>
<pre>void exitpg();</pre>
//mainpage//
void mainp();
void allstp();
<pre>void regstp();</pre>
<pre>void searchp();</pre>
<pre>void exlogp();</pre>

int main ()

```
// This will show the homepage of the program//
// Users can choose on what option they want to access//
{
      int c;
      cout << ''\n\n\n\t\t\t ------
      cout << "\t\t Rizal Technological University \n\n";
                                                               \n'';
      cout \ll "\t \t
                     Pasig and Mandaluyong Campus
      cout \ll "\t \t
      cout \ll "\t\t
                              CLASSROOM MANAGEMENT SYSTEM
\n'';
      cout \ll "\t \t
      cout << "\t\t\t Please Select: \n" << endl;</pre>
      cout << "\t\t Press [1] to Login " << endl;
      cout << "\t\t\ Press [2] to Register " << endl;
      cout << "\t\t\t Press [3] Forgot Password " << endl;
      cout << "\t\t\t Press [4] to Exit " << endl;
      cout << ''\t\t\t
      cout << "\n\t\t\ Enter your choice: "; //User will be asked on what
option they want to access//
      cin >> c;//This will input and display users chosen option//
      cout << endl;
      switch (c)
```

```
{
                case 1:
                        loginp();
                        break;
                case 2:
                        registrationp();
                        break;
                case 3:
                        forgotp();
                        break;
                case 4:
                        exitp();
                        break;
                default:
                        cout << ''\t\t\t
                                             Invalid choice, select options given. \n" <<
endl;
                        cout << '' \setminus n \setminus t \setminus t
                                                      Press any key to proceed ...";
                        getch();
                        system("cls");
                        main();
```

```
}
}
// Use to login users account//
       void loginp ()
{
       char ch;
       int count;
       string userId, password, id, pass;
       system("cls");
       cout \ll "\n\n\n\n\n\t\t
       cout \ll "\t\t
                                       LOGIN
                                                             \n'';
       cout \ll "\t\t
       cout \ll "\t \t
                              Enter Username: "; // User will be asked for their
username//
       cin >> userId; // This will input and display users active username//
  cout << '' \setminus n \setminus t \setminus t
                                Enter Password: ";// User will be ask for their
password//
       ch = getch();
              while(ch != 13)
{
  // The users inputted password will display as an asterisk//
                     password.push_back(ch);
```

```
cout << '*';
                      ch = getch();
}
              ifstream input("log.txt");
              while (input >> id >> pass)
{
                      if (id == userId && pass == password)
{
                             count = 1;
}
}
              input.close();
              if (count == 1)
{
                      cout \ll "\n\hlaph n\t\t
\n'';
                      cout << ''\t\t\t
                                           Login successfull. \n";
                      cout << "\t\t\t" "
                                                  Hi, " << userId << ". Welcome!
\n'';
                      cout << "\n\t\t
                                               Press any key to proceed ...";
                      getch();
```

```
system("cls");
                  mainp();
}
               else
{
                       cout << '' \setminus n \setminus t \setminus t
\n'';
                                              You are not Registered yet!";
                       cout << ''\t\t\t
                       cout << "\n\t\t\t
                                                Please Register. \n";
                       cout << "\n\hlark \t \t
                                                      Press any key to proceed ...";
                       getch();
                       system("cls");
                       main();
}
}
// Use to create users account//
       void registrationp()
{
               string RuserId, Rpassword;
               system("cls");
          cout \ll "\n\n\n\n\t\t
          cout \ll "\t \t \
                                             REGISTER
                                                                         \n'';
          cout \ll "\t\t
```

```
cout << "\t\t\t
                                        Enter Username: ";// User will be asked for
the username they provide//
               cin >> RuserId;//This will input and display users provided
username
               cout << '' \setminus n \setminus t \setminus t
                                           Enter Password: "; //User will be ask for
the password they provide//
               cin >> Rpassword;//This will input and display users provide
password//
               ofstream f1("log.txt", ios::app);
               f1 << RuserId << ' ' << Rpassword << endl;
               cout << '' \setminus n \setminus t \setminus t
               cout << ''\t\t\t
                                      Registration successfull ! \n\n";
               cout << '' \setminus n \setminus t \setminus t
                                          Press any key to proceed ...";
               getch();
               getline (cin, Rpassword);
               system("cls");
               main();
}
// Use if the user forgot its password//
// User can access it by giving the provided data needed//
  void forgotp()
```

{			
int option;			
<pre>system("cls");</pre>			
$cout << "\n\n\t\t$		\n'';	
cout << "\t\t\t	FORGOT	PASSWORD	\n";
cout << "\t\t\t		\n";	
cout << ''\t\t\	Please Select:	\n" << endl;	
cout << "\t\t\t	Press [1] to se	earch your ID by Useri	name '' <<
endl;			
cout << ''\t\t\t	Press [2] to go	back in Main Menu "	<< endl;
cout << "\n\t\t\t		\n'';	
cout << "\t\t\t	Enter yo	our choice: ";// User w	vill be ask
whether they want find their	ID or go back to ma	ain menu//	
cin >> option;//	This will input and	l display users chosen o	option//
switch (option)			
{			
case 1:			
{			
int count = 0;			
string suserId, s	sId, spass;		
cout << ''\n\t\t\t		\	m":

```
cout << ''\t\t\t
                                    Enter your username: ";// User will be ask for
its active username//
              cin >> suserId;//This will input and display users active username//
              ifstream f2("log.txt");
              while (f2 \gg sId \gg spass)
{
              if (sId == suserId)
{
              count = 1;
}
}
              f2.close();
              if (count == 1)
{
              cout << ''\n\t\t\t
                                      Your Account has been found. \n";
                                      Your Password is: " << spass << "\n";
              cout << "\n\t\t\t
              cout \ll "\n\t\t
              cout << "\n\t\t
                                        Press any key to proceed ...";
              getch();
              system("cls");
              main();
```

}

```
else
{
                                    Sorry, No Account found.\n";
              cout << "\n\t\t
              cout << "\n\t\t
                                        Press any key to proceed ...";
              getch();
              system("cls");
              forgotp();
}
              break;
}
              case 2: {
                     system("cls");
                     main();
                     break;
}
              default:
                                             Wrong choice, Please try again " <<
                     cout \ll "\n\t\t
endl;
                     cout << "\n\t\t
                                              Press any key to proceed ...";
                     getch();
                     system("cls");
```

```
forgotp();
}
}
// Use to exit the entire page//
 void exitp()
{
           int d, y, n;
           system("cls");
           cout << "\n\n\n\n\n\n\t\t
                                          Are you sure you want to
exit? ";
           cout \ll "\n\t\t
           cout << "\t\t\t</pre>
Please Select:
                                               n'' \ll endl;
       cout << "\t\t\t Press [1] if Yes " << endl;
     cout << "\t\t\t \\t
       cout << "\t\t\t Enter your choice: ";//User will be asked if they
want to exit or not//
           cin >> d;//This will input and display users chosen option//
           cout << endl;
           switch (d)
{
           case 1:
```

```
system("cls");
                       exitpg();
                       break;
               case 2:
                       system("cls");
                       main();
                       break;
               default:
                                              Invalid choice, select options given. \n"
                       cout << "\t\t\t
<< endl;
                       cout << '' \setminus n \setminus t \setminus t
                                                   Press any key to proceed ...";
                       getch();
                       system("cls");
                       exitp();
}
}
// Shows the exit page//
 void exitpg()
{
       cout << "\n\n\n\n\n\n\n\n\t\t
                                                            Thank you for using our
program! ";
```

```
cout << '' \setminus n \setminus t \setminus t
n n n n n';
}
// Shows the main page of the program//
// Where user can choose on the specific they want to access//
      void mainp()
{
      int m;
      system("cls");
      cout \ll "\n\n\n\t\t
      cout << "\t\t\t Rizal Technological University \n\n";
      cout << "\t\t\ Pasig and Mandaluyong Campus
                                                                     \n'';
      cout << "\t\t\t -----\n";
                                 MAIN PAGE \n";
      cout << ''\t\t\t
      cout \ll "\t \t
      cout << "\t\t\t Please Select: \n" << endl;</pre>
      cout<<"\t\t\< [1] Display All Student"<<endl;</pre>
  cout<<"\t\t\t [2] Register Data of Student"<<endl;
  cout<<"\t\t\t</pre> [3] Specify Student Number"<<endl;
  cout<<"\t\t\t< [4] Logout Account"<<endl;</pre>
  cout << ''\t\t\t
  cout << " \setminus n \setminus t \setminus t
                      Enter your choice: ";// User can choose an option
they want to access//
  cin >> m;//This will input and display users chosen option//
```

```
cout << endl;</pre>
    switch (m)
{
               case 1:
                      allstp();
                      break;
               case 2:
                      regstp();
                      break;
               case 3:
                      searchp();
                      break;
               case 4:
                      exlogp();
                      break;
               default:
                                            Invalid choice, select options given. \n"
                      cout << "\t\t\t
<< endl;
```

	$cout << "\n\t\t$	Press any key to proceed ";
	getch();	
	<pre>system("cls");</pre>	
	mainp();	
}		
}		
// This page show al	l the student that a	re registered//
void allstp()		
{		
int s;		
syster	m("cls");	
cout ·	<< ''\n\n\t	
	\n'';	
cout <<	"\t\t\t	Rizal Technological University
\n\n";		
cout <<	"\t\t\t	Pasig and Mandaluyong Campus
\n";		
cout << "	\t	
	-\n'';	
cout <	<< ''\t\t\t	STUDENT DATA";
cout <	<< ''\n\t	
	\n'';	

string srg;

```
ifstream filestream("information.txt");
        if (filestream.is open())
{
  while (getline (filestream, srg))
{
   cout << srg << endl;</pre>
}
  filestream.close();
}
 else
{
   cout << ""<<endl;
}
               cout << '' \setminus n \setminus t \setminus t
                                                    Press any key to go back to Main
Page . . . ";
               getch();
               system("cls");
                mainp();
}
// This is the page where the user can register its own student information//
// User can enter the data are listed below//
```

<pre>void regstp()</pre>	
{	
string studentid, studentage, s	studentgender, studentemail, studentnum;
char studentname[5	0], studentadd [100], studentPY [50];
<pre>system("cls");</pre>	
cout << "\n\n\t\n";	
cout << "\t\t\t	Rizal Technological University
\n\n";	
$cout << "\t\t$	Pasig and Mandaluyong Campus
\n";	
cout << "\t	
\n";	
cout << "\t\t\	REGISTER NEW STUDENT";
cout << "\n\t	
\n";	
cout << "\tStudent ID: ";//Us	er will be asked for its Student ID//
cin >> studentid;// This will st	tore and display the inputed value of the user//
cout << "\n\tStudent Name ((First/Second, Middle, Last): "; //User will be
asked for their name by order pro	vided//
cin.ignore(256, '\n');	

cin.getline(studentname, 50);// This will store and display the inputed value of the user//

cout << "\n\tStudent Age: "; // User will be asked for their age//
cin >> studentage;// This will store and display the inputted value of the
user//

cout << "\n\tStudent Gender (Male/Female): ";// User will be asked for their
gender//</pre>

cin >> studentgender;// This will stores and display the inputted value of the user//

cout << "\n\tStudent Address (Block#, Lot#, Street, Barangay, City):
";//User will be asked for their address by the order provided//
cin.ignore(256, '\n');</pre>

cin.getline(studentadd, 100);// This will store and display the inputted value of the user//

cout << "\n\tProgram & Year: ";//User will be asked on what program and
year they are//</pre>

cin.getline(studentPY, 50);// This will store and display the inputted value of the user//

cout << "\n\tStudent Email: ";//User will be asked for their active email//</pre>

cin >> studentemail;// This will store and display the inputted value of the user//

cout << "\n\tContact Number: ";//User will be asked for their contact
number//</pre>

cin >> studentnum;// This will store and display the inputted value of the user//

cout << "\n\t-----\n":

ofstream f3("information.txt", ios::app);

f3 << "\tStudent ID: " << studentid << '\n' << "\tName: " << studentname << '\n' << "\tAge: " << studentage << '\n'

<< "\tGender: " << studentgender << '\n' << "\tAddress: " <<
studentadd << '\n' << "\tProgram & Year: " << studentPY << '\n'</pre>

ofstream f4("information-spe.txt", ios::app);

f4 << studentid << '\n' << studentname << '\n' << studentage << '\n' << studentPY << '\n' << studentPY << '\n' << studentemail << '\n'

```
<< studentnum << '\n' << endl;
           cout << ''\t\t\t\t
                               Registration successfull ! \n";
           cout << '' \setminus n \setminus t \setminus t \setminus t
                               Press any key to proceed ...";
           getch();
           getline(cin, studentid);
           system("cls");
           mainp();
}
// This is page where the user can search and access students information//
// User can access the students data by using its student number//
  void searchp()
{
     int c;
      system("cls");
      cout << "\n\n\t------
     ----\n'';
      cout << "\t\t\ Rizal Technological University
                                                               n';
      cout << "\t\t\t
                                       Pasig and Mandaluyong Campus
\n'';
      cout << "\t-----
 cout \ll "\t \land t  SEARCHSTUDENT DATA";
```

cout << "\n\t
\n'';
cout << "\tPlease Select: \n" << endl;
<pre>cout << "\t Press [1] to search your student ID" << endl;</pre>
cout << "\t Press [2] to go back in Main Page " << endl;
cout << "\n\t
\n'';
cout << "\t Enter your choice: "; // User will be asked in what option they
want to access//
cin >> c;//This will input and display users chosen option//
switch (c)
{
case 1: {
int count;
string studentid, sId, studentname, studentage,
studentgender, studentadd, studentPY, studentemail, studentnum;
cout << "\n\t
\n";
cout << "\t Enter your Student ID: "; //User will be asked
for their Student ID//
cin >> studentid; //This will input and display the inputted
value of the user //

```
ifstream f5("information-spe.txt");
                     while(f5 >> sId >> studentname >> studentage >>
studentgender >> studentadd >> studentPY >> studentemail >> studentnum)
                     {
                            if(sId == studentid){
                                   count = 0;
                            }
                     }
                     f5.close();
                     if (count != 1) {
                            cout << "\n\t Your Student ID has been found.";</pre>
                            cout << ''\n\t-----
                             ----\n'';
                            cout << "\n\t Student ID: " << studentid << "\n";</pre>
                            cout << "\n\t Name: " << studentname << "\n";</pre>
                            cout << "\n\t Age: " << studentage << "\n";</pre>
                            cout << "\n\t Gender: " << studentgender << "\n";</pre>
                            cout << "\n\t Address: " << studentadd << "\n";</pre>
                            cout << "\n\t Program & Year: " << studentPY <<
"\n";
                            cout << "\n\t Email: " << studentemail << "\n";</pre>
```

		cout << "\n\t Contact	t Number: " << studentnum <<
"\n";			
		cout << "\n\t	
		\n'';	
		cout<<"\n\t\t\t	Press any key to
proceed";			
		getch();	
		system("cls");	
		mainp();	
	}	107	
	else {		
	eise (cout << "\n\t	
		\n";	
		cout << "\n\t\t\t	Sorry, No Student ID was
found \n!!		cout > \m\text{m\text{t\text{t}}}	Sorry, No Student ID was
found.\n";		4.5.5 10 1000	D
		cout<< "\n\t\t\t	Press any key to
proceed ";			
		getch();	
		<pre>system("cls");</pre>	
		searchp();	
	}		
	break	; ;	
}			

```
case 2: {
                            system("cls");
                            mainp();
                            break;
                     }
                     default:
                            cout \ll "\n\t\t
                                                         Wrong choice, Please try
again " << endl;
                            cout << "\n\t\t
                                                                Press any key to
proceed ...";
                            getch();
                            system("cls");
                            searchp();
}
}
// This the logout page of the program//
// After the user logout its account it will return to the homepage//
       void exlogp()
{
              int l, y, n;
              system("cls");
```

cout<<"\n\n\	$n \ln n \ln n t t$	Are you sure you want to
logout your account? ";		
cout << "\n\t	\t\t	\n";
cout << "\t\t\	t Please Select:	\n" << endl;
cout << "\t\t\t	Press [1] if Yes	" << endl;
cout << "\t\t\t	Press [2] if No	\n" << endl;
cout << "\t\t\t		\n'';
cout << "\t\t\t	Enter your choice:	: "; //User will be asked if they
want logout their account//		
cin >> l;//Thi	s will input and display	users chosen option//
cout << endl;		
switch (l)		
{		
case 1:		
systen	n("cls");	
main();	
break	;	
case 2:		
systen	n("cls");	
mainp	0();	
break	;	

}

VIII. CONCLUSION

As developers, created this classroom management system they gave importance of applying more advance programming concepts therefore understanding and using advanced programming principles in the creation of systems using the C++ programming language is important since it can make certain activities simple and convenient. As developers, while using more advance programming techniques they faced some instances on a certain feature (specify student number), it is working but it needs more time to be 100% furnished, but the developers still included it on the system and for quite some time they will be working on that to make the system more efficient to use. Overall, they are aware that it can help the users of the system to lessen the paperwork and files that they should pass at school or university. Instead, with the help of the classroom management system, it is easy to encode and display various information for a certain user or student. And it also promotes a higher level of student engagement.