

# Skill Development Lab -II

## Mini Project

### Attendance Management System

```
#include <iostream>
#include <string>
#include <fstream>
#include <cstring>

using namespace std;

int adminView();
int studentView();
int studentLogin();
int checkCredentials(string userName, string password);
int getAllStudentsbyRollNo();
int deleteAllStudents();
int deleteStudentbyRollno();
int checkListOfStudentsRegistered();
int checkPresenseCountbyRollno();
int getListOfStudentsWithTheirPresenseCount();
int registerStudent();
int adminLogin();
int registerStudent();
int markMyAttendance(string username);
int countMyAttendance(string username);
int delay();

int delay()
{
    for(int i = 0; i<3; i++)
    {
        cout<<"\n Saving Records ...";
        for(int ii = 0; ii<20000; ii++)
        {
            for(int iii = 0; iii<20000; iii++)
            {
                }
            }
        }
    }

    cout<<"\n Exiting Now ...";
    for(int i = 0; i<3; i++){
        for(int ii = 0; ii<20000; ii++) {
            for(int iii = 0; iii<20000; iii++){
                }
            }
        }
    }

    return 0;
```

```

}

int adminView()
{
    int goBack = 0;
    while(1)
    {
        system("cls");
        cout<<"\n 1 Register a Student";
        cout<<"\n 2 Delete All students name registered";
        cout<<"\n 3 Delete student by rollno";
        cout<<"\n 4 Check List of Student registered by username";
        cout<<"\n 5 Check presense count of any student by Roll No";
        cout<<"\n 6 Get List of student with their attendance count";
        cout<<"\n 0. Go Back <- \n";
        int choice;

        cout<<"\n Enter you choice: ";
        cin>>choice;

        switch(choice)
        {
            case 1: registerStudent();break;
            case 2: deleteAllStudents(); break;
            case 3: deleteStudentbyRollno(); break;
            case 4: checkListOfStudentsRegistered(); break;
            case 5: checkPresenseCountbyRollno(); break;
            case 6: getListOfStudentsWithTheirPresenseCount(); break;
            case 0: goBack = 1;break;
            default: cout<<"\n Invalid choice. Enter again ";
                    getchar();
        }

        if(goBack == 1)
        {
            break; //break the loop
        }

    }

    return 0;

}

int studentLogin()
{
    system("cls");
    cout<<"\n ----- Student Login -----";
    studentView();
    delay();
    return 0;
}

int adminLogin()
{
    system("cls");

```

```

cout<<"\n ----- Admin Login -----";

string username;
string password;

cout<<"\n Enter username : ";
cin>>username;
cout<<"\n Enter password : ";
cin>>password;

if(username=="admin" && password=="admin@2")
{
    adminView();
    getchar();
    delay();
}
else
{
    cout<<"\n Error ! Invalid Credintials..";
    cout<<"\n Press any key for main menu ";
    getchar();getchar();
}

return 0;

}

int checkStudentCredentials(string username, string password)
{
    // read file line by line & check if username-password.dat exist?
    // if it exsist return 1 else 0

    ifstream read;
    read.open("db.dat");

    if (read) {
        // The file exists, and is open for input
        int recordFound = 0;
        string line;
        string temp = username + "-" +password + ".dat";
        cout<<"\n file name is : "<<temp;
        while(getline(read, line)) {
            if(line == temp)
            {
                recordFound = 1;
                break;
            }
        }
    }

    if(recordFound == 0)
        return 0;
    else
        return 1;
}
else
{

```

```

        return 0;
    }

}

int getAllStudentsbyName()
{
    cout<<"\n List of All Students by their Name \n";

    cout<<"\n Please any key to continue..";
    getchar();getchar();

    return 0;

}

int getAllStudentsbyRollNo()
{
    cout<<"\n List of All Students by their Roll No \n";

    cout<<"\n Please any key to continue..";
    getchar();getchar();

    return 0;

}

int deleteStudentbyRollno()
{
    cout<<"\n Delete any Student by their Roll No \n";

    cout<<"\n Please any key to continue..";
    getchar();getchar();

    return 0;
}

int checkPresenseCountbyRollno()
{
    cout<<"\n Check presense count of any Student by Roll No \n";

    cout<<"\n Please any key to continue.."    ;
    getchar();getchar();

    return 0;

}

int checkAllPresenseCountbyRollno()
{
    cout<<"\n Check presense count of All Students by Roll No & Name \n";

    cout<<"\n Please any key to continue.."    ;
    getchar();getchar();

```

```

return 0;
}

int studentView()
{
cout<<"\n ----- Student Login----- \n";

string username, password;

cout<<"\n Enter username : ";
cin>>username;

cout<<"\n Enter password : ";
cin>>password;

int res = checkStudentCredentials(username, password);

if(res == 0)
{
    cout<<"\n Invalid Credentials !!";
    cout<<"\n Press any key for Main Menu..";
    getchar(); getchar();
    return 0;
}

int goBack = 0;
while(1)
{
system("cls");

cout<<"\n 1 Mark Attendance fo Today ";
cout<<"\n 2 Count my Attendance";
cout<<"\n 0. Go Back <- \n";
int choice;

cout<<"\n Enter you choice: ";
cin>>choice;

switch(choice)
{
    case 1: markMyAttendance(username); break;
    case 2: countMyAttendance(username); break;
    case 0: goBack = 1; break;
    default: cout<<"\n Invalid choice. Enter again ";
            getchar();
}

if(goBack == 1)
{
break; //break the loop
}

}

}

int markMyAttendance(string username)

```

```

{
cout<<"\n Mark Attendance for today !!";

cout<<"\n Please any key to continue..";

getchar();getchar();

return 0;
}

int countMyAttendance(string username)
{
cout<<"\n Count my attendace for today !!";

cout<<"\n Please any key to continue..";

getchar();getchar();

return 0;
}

int deleteAllStudents()
{
cout<<"\n In delete all students !!";

cout<<"\n Please any key to continue..";

getchar(); getchar();
return 0;
}

int checkListOfStudentRegistered()
{
cout<<"\n List of All registered registered !!";

cout<<"\n Please any key to continue..";
getchar(); getchar();
return 0;
}

int getListOfStudentsWithTheirPresenseCount()
{
cout<<"\n All Students with their Presense count !!";

cout<<"\n Please any key to continue..";
getchar(); getchar();
return 0;
}

int checkListOfStudentsRegistered(){
cout<<"\n - Check List of Student Registered by Username-- ";

//check if record already exist..
ifstream read;
read.open("db.dat");

```

```

if(read)
{
    int recordFound =0;
    string line;
    while(getline(read, line)) {
        char name[100];
        strcpy(name, line.c_str());
        char onlyname[100];
        strncpy(onlyname, name, (strlen(name) - 4));
        cout<<" \n " << onlyname;
    }
    read.close();
}
else
{
    cout<<"\n No Record found :(";
}

```

```

cout<<"\n Please any key to continue..";
getchar(); getchar();
return 0;
}

```

```

int registerStudent()
{
    cout<<"\n ---- Form to Register Student ---- \n";

    string name, username, password, rollno, address, father, mother;

    cout<<"\n Enter Name : ";    cin>>name;

    cout<<"\n Enter Username : ";    cin>>username;

    cout<<"\n Enter password : ";    cin>>password;

    cout<<"\n Enter rollno : ";    cin>>rollno;
    getchar();

    char add[100];
    cout<<"\n Enter address : ";    cin.getline(add, 100);

    cout<<"\n Enter father : ";    cin>>father;

    cout<<"\n Enter mother : ";    cin>>mother;

    //check if record already exist..
    ifstream read;
    read.open("db.dat");

    if(read)
    {
        int recordFound =0;
        string line;
        while(getline(read, line)) {
            if(line == username+".dat" )
            {

```

```

        recordFound = 1 ;
        break;
    }
}
if(recordFound == 1)
{
    cout<<"\n Username already Register. Please choose another username ";
    getchar(); getchar();
    delay();
    read.close();
    return 0;
}
}
read.close();

ofstream out;
out.open("db.dat", ios::app);
out<<username+".dat"<<"\n";
out.close();

ofstream out1;
string temp = username+".dat";
out1.open(temp.c_str());
out1<<name<<"\n";    out1<<username<<"\n";    out1<<password<<"\n";
out1<<rollno<<"\n";    out1<<add<<"\n";    out1<<father<<"\n";
out1<<mother<<"\n";
out1.close();

cout<<"\n Student Registered Successfully !!";

    cout<<"\n Please any key to continue..";
    getchar(); getchar();
    return 0;
}
int main(int argc, char** argv) {

    while(1)
    {
        system("cls");

        cout<<"\n Attendance Management System \n";
        cout<<"-----\n\n";

        cout<<"1. Student Login\n";
        cout<<"2. Admin Login\n";

        cout<<"0. Exit\n";
        int choice;

        cout<<"\n Enter you choice: ";
        cin>>choice;

        switch(choice)
        {
            case 1: studentLogin(); break;
            case 2: adminLogin(); break;
            case 0:

```



```

        while(1)
        {
            system("cls");
            cout<<"\n Are you sure, you want to exit? y | n \n";
            char ex;
            cin>>ex;
            if(ex == 'y' || ex == 'Y')
                exit(0);
            else if(ex == 'n' || ex == 'N')
            {
                break;
            }
            else{

                cout<<"\n Invalid choice !!!";
                getchar();
            }

        } break;

        default: cout<<"\n Invalid choice. Enter again ";
        getchar();

    }

}

return 0;
}

```