

# CERTIFICATE

This is to certify that the project entitled  
Student Report Card Management System  
is prepared under my guidance and supervision by

**NAME:-**

**ROLL NUMBER: .....**

**CLASS:XII**

**SUBJECT: COMPUTER SCIENCE**

**SESSION:2014 - 2015**

**SUBMITTED TO :- Ms.Pallavi Sharma**

**SIGNATURE:- .....**

# Acknowledgment

I extend my deep sense of gratitude and sincere thanks to our subject teacher Ms Pallavi Sharma for his valuable support and guidance in carrying my project work .

I also express my gratitude to all the faculty members, parents and my fellow mates who have helped me to carry out this work. Last but not the least, I thank my almighty God for His blessing showed on me during this period .

```
//*****
//      HEADER FILE USED IN PROJECT
//*****

#include<fstream.h>
#include<iomanip.h>
#include<stdio.h>
#include<conio.h>

//*****
//      CLASS USED IN PROJECT
//*****

class student
{
    int rollno;
    char name[50];
    int p_marks, c_marks, m_marks, e_marks, cs_marks;
    float per;
    char grade;
    void calculate();//function to calculate grade
public:
    void getdata();      //function to accept data from user
```

```
void showdata();           //function to show data on screen
void show_tabular();
int retrollno();
}; //class ends here
```

```
void student::calculate()
{
    per=(p_marks+c_marks+m_marks+e_marks+cs_marks)/5.0;
    if(per>=60)
        grade='A';
    else if(per>=50)
        grade='B';
    else if(per>=33)
        grade='C';
    else
        grade='F';
}
```

```
void student::getdata()
{
    cout<<"\nEnter The roll number of student ";
    cin>>rollno;
    cout<<"\n\nEnter The Name of student ";
    gets(name);
}
```

```
    cout<<"\nEnter The marks in physics out of 100 : ";
    cin>>p_marks;
    cout<<"\nEnter The marks in chemistry out of 100 : ";
    cin>>c_marks;
    cout<<"\nEnter The marks in maths out of 100 : ";
    cin>>m_marks;
    cout<<"\nEnter The marks in english out of 100 : ";
    cin>>e_marks;
    cout<<"\nEnter The marks in computer science out of 100 : ";
    cin>>cs_marks;
    calculate();
}
```

```
void student::showdata()
```

```
{
    cout<<"\nRoll number of student : "<<rollno;
    cout<<"\nName of student : "<<name;
    cout<<"\nMarks in Physics : "<<p_marks;
    cout<<"\nMarks in Chemistry : "<<c_marks;
    cout<<"\nMarks in Maths : "<<m_marks;
    cout<<"\nMarks in English : "<<e_marks;
    cout<<"\nMarks in Computer Science : "<<cs_marks;
    cout<<"\nPercentage of student is : "<<per;
    cout<<"\nGrade of student is : "<<grade;
}
```

```

void student::show_tabular()
{
    cout<<rollno<<setw(6)<<"
"<<name<<setw(10)<<p_marks<<setw(4)<<c_marks<<setw(4)<<m_marks<<setw(4)
    <<e_marks<<setw(4)<<cs_marks<<setw(6)<<per<<setw(6)<<" "<<grade<<endl;
}

```

```

int student::retrollno()
{
    return rollno;
}

```

```

//*****
//    function declaration
//*****

```

```

void write_student();    //write the record in binary file
void display_all();     //read all records from binary file
void display_sp(int);   //accept rollno and read record from binary file
void modify_student(int);    //accept rollno and update record of binary file
void delete_student(int);    //accept rollno and delete selected records from binary file
void class_result();        //display all records in tabular format from binary file
void result();              //display result menu

```

```
void entry_menu();    //display entry menu on screen
```

```
//*****
```

```
//    THE MAIN FUNCTION OF PROGRAM
```

```
//*****
```

```
int main()
```

```
{
```

```
    char ch;
```

```
    clrscr();
```

```
    // intro();
```

```
    do
```

```
    {
```

```
        clrscr();
```

```
        cout<<"\n\n\tMAIN MENU";
```

```
        cout<<"\n\n\t01. RESULT MENU";
```

```
        cout<<"\n\n\t02. ENTRY/EDIT MENU";
```

```
        cout<<"\n\n\t03. EXIT";
```

```
        cout<<"\n\n\tPlease Select Your Option (1-3) ";
```

```
        cin>>ch;
```

```
        clrscr();
```

```
        switch(ch)
```

```

        {
            case '1': result();
                break;
            case '2': entry_menu();
                break;
            case '3':
                break;
            default :cout<<"\a";
        }
    }while(ch!='3');
    return 0;
}

//*****

//    function to write in file

//*****

void write_student()
{
    student st;

    ofstream outFile;

    outFile.open("student.dat",ios::binary|ios::app);

    st.getdata();

    outFile.write((char *) &st, sizeof(student));

    outFile.close();
}

```



```

        cout<<"\n\nStudent record Has Been Created ";
//    cin.ignore();
        getch();
}

//*****

//    function to read all records from file

//*****

void display_all()
{
    student st;
    ifstream inFile;
    inFile.open("student.dat",ios::binary);
    if(!inFile)
    {
        cout<<"File could not be open !! Press any Key...";
        getch();
        return;
    }
    cout<<"\n\n\n\t\tDISPLAY ALL RECORD !!!\n\n";
    while(inFile.read((char *) &st, sizeof(student)))
    {
        st.showdata();
        cout<<"\n\n===== \n";
    }
}

```

```

    }

    inFile.close();

    getch();
}

//*****

//    function to read specific record from file

//*****

void display_sp(int n)
{
    student st;

    ifstream inFile;

    inFile.open("student.dat",ios::binary);

    if(!inFile)
    {
        cout<<"File could not be open !! Press any Key...";

        getch();

        return;
    }

    int flag=0;

    while(inFile.read((char *) &st, sizeof(student)))
    {
        if(st.retrollno()==n)

```

```

        {
            st.showdata();
            flag=1;
        }
    }
inFile.close();
if(flag==0)
    cout<<"\n\nrecord not exist";
getch();
}

//*****
//    function to modify record of file
//*****

void modify_student(int n)
{
    int found=0;
    student st;
    fstream File;
    File.open("student.dat",ios::binary|ios::in|ios::out);
    if(!File)
    {
        cout<<"File could not be open !! Press any Key...";
        getch();
    }
}

```

```

        return;
    }
    while(File.read((char *) &st, sizeof(student)) && found==0)
    {
        if(st.retrollno()==n)
        {
            st.showdata();

            cout<<"\n\nPlease Enter The New Details of student"<<endl;

            st.getdata();

            int pos=(-1)*sizeof(st);

            File.seekp(pos,ios::cur);

            File.write((char *) &st, sizeof(student));

            cout<<"\n\n\t Record Updated";

            found=1;

        }
    }

    File.close();

    if(found==0)

        cout<<"\n\n Record Not Found ";

    getch();
}

//*****

//    function to delete record of file

//*****

```

```
void delete_student(int n)
{
    student st;

    ifstream inFile;

    inFile.open("student.dat",ios::binary);

    if(!inFile)
    {
        cout<<"File could not be open !! Press any Key...";

        getch();

        return;
    }

    ofstream outFile;

    outFile.open("Temp.dat",ios::out);

    inFile.seekg(0,ios::beg);

    while(inFile.read((char *) &st, sizeof(student)))
    {
        if(st.retrollno()!=n)
        {
            outFile.write((char *) &st, sizeof(student));
        }
    }

    outFile.close();

    inFile.close();

    remove("student.dat");
}
```

```

        rename("Temp.dat","student.dat");

        cout<<"\n\n\tRecord Deleted ..";

        getch();
    }

//*****

//    function to display all students grade report

//*****

void class_result()
{
    student st;

    ifstream inFile;

    inFile.open("student.dat",ios::binary);

    if(!inFile)
    {
        cout<<"File could not be open !! Press any Key...";

        getch();

        return;
    }

    cout<<"\n\n\t\tALL STUDENTS RESULT \n\n";

    cout<<"=====\n";

    cout<<"R.No    Name    P C M E CS %age Grade"<<endl;

    cout<<"=====\n";

    while(inFile.read((char *) &st, sizeof(student)))

```

```

    {
        st.show_tabular();
    }
    getch();
    inFile.close();
}

//*****
//    function to display result menu
//*****

void result()
{
    char ch;
    int rno;

    cout<<"\n\n\tRESULT MENU";
    cout<<"\n\n\t1. Student Report Card";
    cout<<"\n\n\t2. Back to Main Menu";
    cout<<"\n\n\tEnter Choice (1/2)? ";

    cin>>ch;

    clrscr();

    switch(ch)
    {

        case '1' :cout<<"\n\n\tEnter Roll Number Of Student : ";

```

```

        cin>>rno;

        display_sp(rno); break;

    case '2f' :break;

    default :cout<<"\a";

    }

}

//*****

//    ENTRY / EDIT MENU FUNCTION

//*****

void entry_menu()

{

    char ch;

    int num;

    clrscr();

    cout<<"\n\n\n\tENTRY MENU";

    cout<<"\n\n\t1.CREATE STUDENT RECORD";

    cout<<"\n\n\t2.DISPLAY ALL STUDENTS RECORDS";

    cout<<"\n\n\t3.SEARCH STUDENT RECORD ";

    cout<<"\n\n\t4.MODIFY STUDENT RECORD";

    cout<<"\n\n\t5.DELETE STUDENT RECORD";

    cout<<"\n\n\t6.BACK TO MAIN MENU";

    cout<<"\n\n\tPlease Enter Your Choice (1-6) ";

    cin>>ch;

    clrscr();

```



```
switch(ch)
{
case '1':write_student(); break;
case '2':display_all(); break;
case '3':cout<<"\n\n\tPlease Enter The roll number "; cin>>num;
        display_sp(num); break;
case '4':cout<<"\n\n\tPlease Enter The roll number "; cin>>num;
        modify_student(num);break;
case '5':cout<<"\n\n\tPlease Enter The roll number "; cin>>num;
        delete_student(num);break;
case '6':break;
default:cout<<"\a"; entry_menu();
}
}

//*****
//
//          END OF PROJECT
//*****
```

## OUTPUT

### MAIN MENU

01. RESULT MENU

02. ENTRY/EDIT MENU

03. EXIT

Please Select Your Option (1-3) 2

### ENTRY MENU

1.CREATE STUDENT RECORD

2.DISPLAY ALL STUDENTS RECORDS

3.SEARCH STUDENT RECORD

4.MODIFY STUDENT RECORD

5.DELETE STUDENT RECORD

6.BACK TO MAIN MENU

Please Enter Your Choice (1-6) 1

Enter The roll number of student 1

Enter The Name of student kashika

Enter The marks in physics out of 100 : 78

Enter The marks in chemistry out of 100 : 76

Enter The marks in maths out of 100 : 65

Enter The marks in english out of 100 : 76

Enter The marks in computer science out of 100 : 88

Student record Has Been Created

MAIN MENU

01. RESULT MENU

02. ENTRY/EDIT MENU

03. EXIT

Please Select Your Option (1-3) 2

ENTRY MENU

1.CREATE STUDENT RECORD

2.DISPLAY ALL STUDENTS RECORDS

3.SEARCH STUDENT RECORD

4.MODIFY STUDENT RECORD

5.DELETE STUDENT RECORD

6.BACK TO MAIN MENU

Please Enter Your Choice (1-6) 3

Please Enter The roll number 1

Roll number of student : 2

Name of student : mani

Marks in Physics : 80

Marks in Chemistry : 80

Marks in Maths : 80

Marks in English : 80

Marks in Computer Science :80

Percentage of student is :80

Grade of student is :A

ENTRY MENU

1.CREATE STUDENT RECORD

2.DISPLAY ALL STUDENTS RECORDS

3.SEARCH STUDENT RECORD

4.MODIFY STUDENT RECORD

5.DELETE STUDENT RECORD

6.BACK TO MAIN MENU

Please Enter Your Choice (1-6) 4

Please Enter The roll number 1

Roll number of student : 1

Name of student : manisha

Marks in Physics : 22662

Marks in Chemistry : -25201

Marks in Maths : 22531

Marks in English : 143

Marks in Computer Science :8704

Percentage of student is :-1.862248e-09

Grade of student is :V

Please Enter The New Details of student

Enter The roll number of student 2

Enter The Name of student mansi

Enter The marks in physics out of 100 : 80

Enter The marks in chemistry out of 100 : 80

Enter The marks in maths out of 100 : 80

Enter The marks in english out of 100 : 80

Enter The marks in computer science out of 100 : 80

Record Updated

ENTRY MENU

1.CREATE STUDENT RECORD

2.DISPLAY ALL STUDENTS RECORDS

3.SEARCH STUDENT RECORD

4.MODIFY STUDENT RECORD

5.DELETE STUDENT RECORD

6.BACK TO MAIN MENU

Please Enter Your Choice (1-6) 5

Please Enter The roll number 1

Record Deleted ..

ENTRY MENU

1.CREATE STUDENT RECORD

2.DISPLAY ALL STUDENTS RECORDS

3.SEARCH STUDENT RECORD

4.MODIFY STUDENT RECORD

5.DELETE STUDENT RECORD

6.BACK TO MAIN MENU

Please Enter Your Choice (1-6) 6



MAIN MENU

01. RESULT MENU

02. ENTRY/EDIT MENU

03. EXIT

Please Select Your Option (1-3) 1

RESULT MENU

1. Student Report Card

2. Back to Main Menu

Enter Choice (1/2)? 1

Enter Roll Number Of Student : 2

Roll number of student : 2

Name of student : mansi

Marks in Physics : 80

Marks in Chemistry : 80

Marks in Maths : 80

Marks in English : 80

Marks in Computer Science :80

Percentage of student is :80

Grade of student is :á

## RESULT MENU

1. Student Report Card

2. Back to Main Menu

Enter Choice (1/2)? 2

MAIN MENU

01. RESULT MENU

02. ENTRY/EDIT MENU

03. EXIT

Please Select Your Option (1-3) 3