

# **D.A.V. PUBLIC SCHOOL, AIROLI**

## **COMPUTER SCIENCE PROJECT ON STUDENT RESULT MANAGEMENT**



**SESSION : 2019-2020**

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**Class : XII-B1**

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# CERTIFICATE

This is to certify that Master Tanish Afre of Std XII B1 , D. A. V. Public School, Airoli, has successfully completed the project entitled STUDENT RESULT MANAGEMENT using C++ during the academic year 2019-20.

It is further certified that the project is the genuine work of the student and has been done sincerely and satisfactorily.

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External Examiner's  
Signature

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Teacher's Signature

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School Stamp

# ACKNOWLEDGEMENT

I wish to express my deep gratitude and sincere thanks to my principal Mrs. Suruchi Kataria for giving me this opportunity, providing me with all the necessary facilities, possible support and for her constant encouragement.

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# INTRODUCTION

Student Management System is based on the concept of managing student information. Before stepping into the main menu a user has to pass through a login system to get access, then the user can manage student information by adding, updating, removing, viewing and searching for details. This mini project contains limited features, but the essential one.

Talking about the features of Student management system, the user can add various information of the students. For that, the user has to provide admission number, full name and marks. The user can also modify all the available records easily. Before modifying the student's record the user has to enter the respective admission number which shows the old available record. After that, the user can modify each and every field. Deleting a record is too simple here, the user just has to enter the admission number of the student. In order to view student record, the user has to search for it. It is done by entering the admission number of the student. Then the system displays each and every available detail.

The system creates an external file to store the user's data permanently. Student Management system is developed using C++ Programming Language and different variables, strings have been used for the development of it.

Basic elements of the program along with user defined data types like Classes, Arrays, Functions, Files have been used in the program. There are many header files used some of which are:  
<iostream.h>, <conio.h>, <process.h>, <stdio.h>, ...etc.

# SOURCE CODE

```
#include<iostream.h>
#include<fstream.h>
#include<stdio.h>
#include<conio.h>
#include<process.h>
#include<iomanip.h>
#include<string.h>
#include<stdlib.h>
#include<dos.h>
#include<ctype.h>
#include<graphics.h>
class Student
{
    int admno;
    float marksp,marksc,marksm,markse,markscs,sum,avg;
    char name[50];
public:
    void EnterData()
    {
        cout<<"\nEnter student details: "<<endl;
        cout << "Admission no: ";
        cin >> admno;
        cout << "Name: ";
        gets(name);
        cout<<"\nMarks:- ";
        cout<<"\nPhysics: ";
        cin>>marksp;
        cout<<"Chemistry: ";
        cin>>marksc;
        cout<<"Maths: ";
        cin>>marksm;
        cout<<"English: ";
        cin>>markse;
        cout<<"Computer Science: ";
        cin>>markscs;
    }

    void showData()
    {
        cout << "\n\n\nAdmission no. : " <<admno;
        cout << "\nStudent Name : " <<name;
        cout << "\nStudent Marks : ";
        cout<<"\nPhysics: "<<marksp;
        cout<<"\nChemistry: "<<marksc;
```

```

        cout<<"\nMaths: "<<marksm;
        cout<<"\nEnglish: "<<markse;
        cout<<"\nComputer Science: "<<markscs;
        sum=marksp+marksc+marksm+markse+markscs;
        cout<<"\nSUM= "<<sum;
        avg=sum/5;
        cout<<"\nAVERAGE= "<<avg;
        getch();
    }

    int retAdmno()
    {
        return admno;
    }
};

// function to write in a binary file.
void write_record()
{
    ofstream outFile;
    char ans='y';
    outFile.open("student.dat", ios::binary | ios::app);
    Student S;
    while(ans=='y' || ans=='Y')
    {
        S.EnterData();
        outFile.write((char*)&S, sizeof(S));
        cout<<"\nWant to enter more ? (y/n).."
        cin>>ans;
    }
    outFile.close();
}

// function to display records of file
void display()
{
    ifstream inFile;
    inFile.open("student.dat", ios::binary);
    Student S;
    while(inFile.read((char*)&S, sizeof(S)))
    {
        S.showData();
    }

    inFile.close();
}

// function to search and display from binary file
void search(int n)
{
    ifstream inFile;
    inFile.open("student.dat", ios::binary);
    Student obj;

```

```

while(inFile.read((char*)&obj, sizeof(obj)))
{
    if(obj.retAdmno()==n)
    {
        obj.showData();
    }
}

inFile.close();
}
// function to delete a record
void delete_record(int n)
{
    Student obj;
    ifstream inFile;
    inFile.open("student.dat", ios::binary);
    ofstream outFile;
    outFile.open("temp.dat", ios::out | ios::binary);
    while(inFile.read((char*)&obj, sizeof(obj)))
    {
        if(obj.retAdmno() != n)
        {
            outFile.write((char*)&obj, sizeof(obj));
        }
    }

    inFile.close();
    outFile.close();

    remove("student.dat");
    rename("temp.dat", "student.dat");
}
// function to modify a record
void modify_record(int n)
{
    fstream file;
    file.open("student.dat", ios::in | ios::out | ios::binary);
    Student obj;
    while(file.read((char*)&obj, sizeof(obj)))
    {
        if(obj.retAdmno() == n)
        {
            file.seekg(0, ios::cur);
            cout << "\nEnter the new details of student";
            obj.EnterData();
            int pos;
            pos=file.tellg() - sizeof(obj);
            file.seekp(pos);
            file.write((char*)&obj, sizeof(obj));
        }
    }
}

```



```

        file.close();
    }

void main()
{
    Student obj;
    clrscr();
    int choice;
    int gdriver = DETECT, gmode, errorcode;
    initgraph(&gdriver, &gmode, "C:\\\\TurboC3\\\\BGI");
    errorcode = graphresult();
    rectangle(10, 150, 635, 300);
    settxtstyle(4, HORIZ_DIR, 4);
    outtextxy(120, 200, "LEARN GLOBAL SCHOOL");
    settxtstyle(DEFAULT_FONT, HORIZ_DIR, 1);
    outtextxy(getmaxx() - 450, getmaxy() - 90, "Welcome. Press any
key to continue ...");
    getch();
    cleardevice();
    closegraph();
    int x;
    int n;
    int a, m, d;
    s:   clrscr();
    cout<<"\\n\\nSelect one option..."<<endl;
    cout<<"\\n1.Enter Record\\n2.Display
Record\\n3.Search\\n4.Modify\\n5.Delete Record\\n6.Close
Application "<<endl;
    cin>>n;
    if(n==1)
    {
        clrscr();
        write_record();
        cout<<"\\nEnter 0 to go to main menu and any other key to
exit....";
        cin>>x;
        if(x==0)
            goto s;
        else
            exit(1);
    }
    else if(n==2)
    {
        clrscr();
        cout << "\\n*****DISPLAY
RECORDS*****";
        display();
        cout<<"\\nEnter 0 to go to main menu and any other key to
exit....";
        cin>>x;
        if(x==0)

```

```

        goto s;
    else
        exit(0);
}
else if(n==3)
{
    clrscr();
    cout << "\n*****SEARCH
RECORD*****";
    cout<<"\n\nEnter the student's Admission number you wish
to search: "<<endl;
    cin>>a;
    search(a);
    cout<<"\nEnter 0 to go to main menu and any other key to
exit....";
    cin>>x;
    if(x==0)
        goto s;
    else
        exit(0);
}
else if(n==4)
{
    clrscr();
    cout<<"\n*****MODIFY
RECORD*****";
    cout<<"\nEnter the student's admission number you wish to
modify: "<<endl;
    cin>>m;
    cout << "\nMODIFY RECORD "<<m;
    modify_record(m);
    cout<<"\nEnter 0 to go to main menu and any other key to
exit....";
    cin>>x;
    if(x==0)
        goto s;
    else
        exit(0);
}
else if(n==5)
{
    clrscr();
    cout<<"\n*****DELETE
RECORD*****";
    cout<<"\nEnter the student's admission number you wish to
delete: "<<endl;
    cin>>d;
    delete_record(d);
    cout << "\nRecord Deleted";
    cout<<"\nEnter 0 to go to main menu and any other key to
exit....";
    cin>>x;
    if(x==0)

```

```
        goto s;
    else
        exit(0);
}
else
{
    cout<<"\nPress any key to EXIT....."<<endl;
    getch();
}
getch();
}
```

# BIBLIOGRAPHY

➤ SUMITA ARORA Textbook

➤ Last Year's Project

➤ Websites

- [www.draw.io](http://www.draw.io)
- [code-projects.org](http://code-projects.org)