

# **SRM Student Admission Management System**

Project submitted to the  
SRM University – AP, Andhra Pradesh  
for the partial fulfillment of the requirements to award the degree of

**Bachelor of Technology**

In

**Computer Science and Engineering  
School of Engineering and Sciences**

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December, 2022**



## **Certificate**

Date: 11-Dec-22

This is to certify that the work present in this Project entitled “**SRM STUDENT ADMISSION MANAGEMENT SYSTEM**” has been carried out by **Group 11(vamsi kumar, manoj kumar, Teja, Susritha)** my/our supervision. The work is genuine, original, and suitable for submission to the SRM University – AP for the award of Bachelor of Technology/Master of Technology in **School of Engineering and Sciences**.

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## **Abstract:**

Today all the work at the time of admission of the students is done manually by ink and paper, which is very slow and consuming much efforts and time. It is required to Design of a Computerized Automated Student Admission System, to speed up and make it easy to use system.

Student admissions are a vital part of any university's running. The process begins with a potential student completing an application form through the Universities and Colleges Admissions Service, the first step for students is to apply directly to the university through a custom online form.

This project's aim is to automate the system, prechecking the inclusion of all required material and automatically ranking each student's application based on a number of criteria.

These criteria include the ranking of their university, their grade at said university and their language grade Certificate. The data used by the system is stored in files that will be the center of all information held about students and the base for the remainder of the process after the initial application has been made. This enables things to be simplified and considerably quickened, making the jobs of the people involved easier.





## Introduction

We are going to present Student admission management system. We use records or books to store details of the student and store them.

But data may get lost when we lose the book. So, we are going to design a code where we store the data of the students and we store them in a file so that we can access in a min and search them in an instant.

We designed this code in such a way that it stores the data of every student and we can access it when we want.

In this code we will take the input from the student and store them in a file. So, that if we need details of the student we can use it for further details. We will use the roll.no to find the student and we can print every student at a time. The file we use will be saved in our project folder and we can have them in a folder and access them.



## **METHODOLOGY**

At first we need a way to represent all the information and to extract useful information from this.

We used the `#include<windows.h>` to integrate our program with the windows and to use the command prompt screen to display content of our program ,

To build a real student with all the characteristics, we build a class as the name with "Student" with components like,

Name,

Roll no,

Subject marks,

Average,

Grade,

Fee.



## IMPLEMENTATION:

### CODE:

```
1  #include<iostream>
2  #include<fstream>
3  #include<iomanip>
4  #include<stdlib.h>
5  using namespace std;
6
7  // the class that stores data
8  class student
9  {
10     int rollno;
11     char name[50];
12     int eng_marks, math_marks, sci_marks, lang2_marks, cs_marks;
13     double average;
14     char grade;
15     int fee;
16
17     public:
18     void getdata();
19     void showdata() const;
20     void calculate();
21     int retrrollno() const;
22 };
23 //class ends here
24
25 void student::calculate()
26 {
27     average=(eng_marks+math_marks+sci_marks+lang2_marks+cs_marks)/5.0;
28     if(average>=90){
29
30         grade='A';
31         fee=20000;}
32     else if(average>=75){
33
34         grade='B';
35         fee=50000;}
36     else if(average>=50){
```

```

37
38     grade='C';
39     fee=75000;}
40     else{
41
42     grade='F';
43     fee=100000;
44 }
45 }
46
47 void student::getdata()
48 {
49     cout<<"Enter student's roll number: ";
50     cin>>rollno;
51
52     cout<<"Enter student's name: ";
53     cin.ignore();
54     cin.getline(name,50);
55
56     cout<<"\n\nEnter Student's Marks"<<endl;
57     cout<<"All marks should be out of 100";
58
59     cout<<"\n\nEnter marks in English: ";
60     cin>>eng_marks;
61
62     cout<<"Enter marks in Math: ";
63     cin>>math_marks;
64
65     cout<<"Enter marks in Science: ";
66     cin>>sci_marks;
67
68     cout<<"Enter marks in Second language: ";
69     cin>>lang2_marks;
70
71     cout<<"Enter marks in Social Studies: ";

```

```

72     cin>>cs_marks;
73     calculate();
74 }
75
76 void student::showdata() const
77 {
78     cout<<"\nRoll number of student : "<<rollno;
79     cout<<"\nName of student : "<<name;
80     cout<<"\nEnglish : "<<eng_marks;
81     cout<<"\nMaths : "<<math_marks;
82     cout<<"\nScience : "<<sci_marks;
83     cout<<"\nSecond Language : "<<lang2_marks;
84     cout<<"\nComputer Science : "<<cs_marks;
85     cout<<"\nAverage Marks : "<<average;
86     cout<<"\nGrade of student is : "<<grade;
87     cout<<"\nFee of the student is : "<<fee;
88
89 }
90
91 int student::retrollno() const
92 {
93     return rollno;
94 }
95
96 //function declaration
97
98 void create_student();
99 void display_sp(int); //display particular record
100 void display_all(); // display all records
101 void delete_student(int); //delete particular record
102 void change_student(int); //edit particular record
103
104 //Write Student Details to File
105
106 void create_student()
107 {

```

```

108     student stud;
109     ofstream oFile;//it is used to create files and write information to the files
110     oFile.open("SSS.dat",ios::binary|ios::app);
111     stud.getdata();
112     oFile.write(reinterpret_cast<char *> (&stud), sizeof(student));
113     oFile.close();
114     cout<<"\nStudent's record has been created ";
115     cin.ignore();
116     cin.get();
117 }
118
119 // Read File Records
120
121 void display_all()
122 {
123     student stud;
124     ifstream inFile;//read information from files
125     inFile.open("SSS.dat",ios::binary);
126     if(!inFile)
127     {
128         cout<<"File could not be opened !! Press any Key to exit";
129         cin.ignore();
130         cin.get();
131         return;
132     }
133
134     cout<<"\n\n\n\t\tDISPLAYING ALL RECORDS\n\n";
135     while(inFile.read(reinterpret_cast<char *> (&stud), sizeof(student)))
136     {
137         stud.showdata();
138         cout<<"\n\n===== \n";
139     }
140
141     inFile.close();
142     cin.ignore();
143     cin.get();

```



```

144     }
145
146     //Read Specific Record Based on Roll Number
147
148     void display_sp(int n)
149     {
150         student stud;
151         ifstream iFile;
152         iFile.open("SSS.dat",ios::binary);
153         if(!iFile)
154
155         {
156             cout<<"File could not be opened... Press any Key to exit";
157             cin.ignore();
158             cin.get();
159             return;
160         }
161
162         bool flag=false;
163         while(iFile.read(reinterpret_cast<char *> (&stud), sizeof(student)))
164         {
165             if(stud.retrollno()==n)
166             {
167                 stud.showdata();
168                 flag=true;
169             }
170         }
171
172         iFile.close();
173         if(flag==false)
174             cout<<"\n\nrecord does not exist";
175         cin.ignore();
176         cin.get();
177     }

```

```

178
179 // Modify Record for Specified Roll Number
180
181 void change_student(int n)
182 {
183     bool found=false;
184     student stud;
185     fstream fl;//it is used to create files write information to files and read information from files
186     fl.open("SSS.dat",ios::binary|ios::in|ios::out);
187     if(!fl)
188     {
189         cout<<"File could not be opened. Press any Key to exit...";
190         cin.ignore();
191         cin.get();
192         return;
193     }
194
195     while(!fl.eof() && found==false)
196     {
197         fl.read(reinterpret_cast<char *> (&stud), sizeof(student));
198         if(stud.retrollno()==n)
199         {
200             stud.showdata();
201             cout<<"\nEnter new student details:"<<endl;
202             stud.getdata();
203             int pos=(-1)*static_cast<int>(sizeof(stud));
204             fl.seekp(pos,ios::cur);
205             fl.write(reinterpret_cast<char *> (&stud), sizeof(student));
206             cout<<"\n\n\tRecord Updated";
207             found=true;
208         }
209     }
210
211     fl.close();
212     if(found==false)
213
214     cout<<"\n\n Record Not Found ";
215     cin.ignore();
216     cin.get();
217 }
218
219 //Delete Record with Particular Roll Number
220
221 void delete_student(int n)
222 {
223     student stud;
224     ifstream iFile;//read the information from files
225     iFile.open("SSS.dat",ios::binary);
226     if(!iFile)
227     {
228         cout<<"File could not be opened... Press any Key to exit...";
229         cin.ignore();
230         cin.get();
231         return;
232     }
233     ofstream oFile;//it is used to create files and write information to the files
234     oFile.open("Temp.dat",ios::out);
235     iFile.seekg(0,ios::beg);
236     while(iFile.read(reinterpret_cast<char *> (&stud), sizeof(student)))
237     {
238         if(stud.retrollno()!=n)
239         {
240             oFile.write(reinterpret_cast<char *> (&stud), sizeof(student));
241         }
242     }
243     oFile.close();
244     iFile.close();
245     remove("SSS.dat");
246     rename("Temp.dat","SSS.dat");
247     cout<<"\n\n\tRecord Deleted ..";
248     cin.ignore();
249     cin.get();

```

```

250 }
251
252 // main function
253
254 int main()
255 {
256     char ch;
257     cout<<setprecision(2);
258
259     do
260     {
261         char ch;
262         int num;
263         system("cls");//clearing the screen
264         cout<<"Welcome to Student Admission Management System"<<endl;
265         cout<<"\nMENU"<<endl;
266         cout<<"\n1. Create a newstudent record"<<endl;
267         cout<<"2. Search student record"<<endl;
268         cout<<"3. Display all students records"<<endl;
269         cout<<"4. Delete student record"<<endl;
270         cout<<"5. Modify student record"<<endl;
271         cout<<"6. Exit"<<endl;
272         cout<<"\nEnter your choice"<<endl;
273         cin>>ch;
274
275         system("cls");
276
277         switch(ch)
278         {
279             case '1': create_student(); break;
280             case '2': cout<<"\n\n\tEnter The roll number: ";
281                     cin>>num;
282                     display_sp(num); break;
283             case '3': display_all(); break;
284             case '4': cout<<"\n\n\tEnter The roll number: ";
285                     cin>>num;
286
287                     delete_student(num);break;
288             case '5': cout<<"\n\n\tEnter The roll number: "; cin>>num;
289                     change_student(num);break;
290             case '6': cout<<"Exiting, Thank you!";exit(0);
291         }
292     }while(ch!='6');
293     return 0;
294 }

```



## DISCUSSION:

### OUTPUT

#### 1) HOME SCREEN (OR) MENU

```
Welcome to Student Admission Management System

MENU

1. Create a newstudent record
2. Search student record
3. Display all students records
4. Delete student record
5. Modify student record
6. Exit

Enter your choice
|
```

#### 2) CREATING A NEW STUDENT RECORD

```
Enter student's roll number: 1
Enter student's name: VAMSI

Enter Student's Marks
All marks should be out of 100

Enter marks in English: 89
Enter marks in Math: 89
Enter marks in Science: 89
Enter marks in Second language: 90
Enter marks in Social Studies: 98

Student's record has been created |
```

### 3) SEARCH STUDENT RECORD

```
Enter The roll number: 1  
  
Roll number of student : 1  
Name of student : VAMSI  
English : 89  
Maths : 89  
Science : 89  
Second Language : 90  
Computer Science :98  
Average Marks :91  
Grade of student is :A  
Fee of the student is :20000|
```

#### 4) DISPLAYING ALL STUDENT RECORDS

##### DISPLAYING ALL RECORDS

Roll number of student : 1  
Name of student : VAMSI  
English : 89  
Maths : 89  
Science : 89  
Second Language : 90  
Computer Science :98  
Average Marks :91  
Grade of student is :A  
Fee of the student is :20000

=====

Roll number of student : 2  
Name of student : manoj  
English : 78  
Maths : 98  
Science : 78  
Second Language : 67  
Computer Science :98  
Average Marks :84  
Grade of student is :B  
Fee of the student is :50000

=====

|

## 5) DELETE STUDENT RECORD

```
Enter The roll number: 1
```

```
Record Deleted ..|
```

## 6) MODIFY STUDENT RECORD

```
Enter The roll number: 2
```

```
Roll number of student : 2
```

```
Name of student : manoj
```

```
English : 78
```

```
Maths : 98
```

```
Science : 78
```

```
Second Language : 67
```

```
Computer Science :98
```

```
Average Marks :84
```

```
Grade of student is :B
```

```
Fee of the student is :50000
```

```
Enter new student details:
```

```
Enter student's roll number: 1
```

```
Enter student's name: vamsi
```

```
Enter Student's Marks
```

```
All marks should be out of 100
```

```
Enter marks in English: 98
```

```
Enter marks in Math: 78
```

```
Enter marks in Science: 98
```

```
Enter marks in Second language: 89
```

```
Enter marks in Social Studies: 89
```

```
Record Updated|
```



## 7) EXITING THE PROGRAM

- After selecting the 6 it will exit the program

```
Welcome to Student Admission Management System

MENU

1. Create a newstudent record
2. Search student record
3. Display all students records
4. Delete student record
5. Modify student record
6. Exit

Enter your choice
6|
```



## **Conclusion:**

This code is used to accept the student details and previous year marks of the student which we can use to store information. By using the above details we can say them how much they want to pay for upcoming year. We can store data in this code and we can just rank them and access the code whenever required but if even if we get an error while entering the details we corrupt the information or file which we are storing the data.

While writing this program we focused on making the code simple and easy to understand. The code should be user-friendly and easy to understand. The interface which we designed has details of student which should be entered and we can search the student by entering the roll no.

This is basic student admission management system code.

