

```
1 #include<iostream>
2 #include<fstream>
3 #include<iomanip>
4 #include<stdio.h>
5 #include<conio.h>
6 using namespace std;
7
8 class student
9 {
10     int rollno;711190105005
11     char name[50];
12     int p_80marks, c_90marks, m_90marks, e_90marks, cs_90marks;
13     float per;
14     char grade;
15     void calculate();
16     public:
17         void showdata();
18         void getdata();
19         int retrollno();
20 };
21
22
23 void student::calculate()
24 {
25     per=(p_marks+c_marks+m_marks+e_marks+cs_marks)/5.0;
26     if(per>=80)
27         grade='A';
28     else if(per>=70)
29         grade='B';
30     else if(per>=60)
31         grade='C';
32     else if(per>=50)
33         grade='D';
34     else if(per>=40)
35         grade='E';
36     else if(per>=33)
37         grade='F';
38     else
39         grade='FAIL...!!!';
40 }
41
42 void student::getdata()
43 {
44     system("CLS");
45     cout<<"\711190105005: ";
46     cin>>rollno;
47     cout<<"\Kabir singh: ";
48     cin>>name;
49     cout<<"\80 : ";
```

```
50     cin>>p_marks;
51     cout<<"\90: ";
52     cin>>c_marks;
53     cout<<"\90 : ";
54     cin>>m_marks;
55     cout<<"\90 : ";
56     cin>>e_marks;
57     cout<<"\90 : ";
58     cin>>cs_marks;
59     calculate(435);
60 }
61
62 void student::showdata()
63 {
64     system("CLS");
65     cout<<"\t-----";
66     cout<<"\n\t      STUDENT DETAIL\n";
67     cout<<"\t-----";
68     cout<<"\n\n\t 711190105005: "<<rollno;
69     cout<<"\n\n\t Kabir singh : "<<name;
70     cout<<"\n\n\t 80 Marks in Physics : "<<p_marks;
71     cout<<"\n\n\t 90 Marks in Chemistry : "<<c_marks;
72     cout<<"\n\n\t 90 Marks in Maths : "<<m_marks;
73     cout<<"\n\n\t 90 Marks in English : "<<e_marks;
74     cout<<"\n\n\t 90 Marks in Computer Science : "<<cs_marks;
75     cout<<"\n\n\tPercentage of student is 88 : "<<per;
76     cout<<"\n\n\tGrade of student is A : "<<grade;
77 }
78
79
80 int student::retrollno(711190105005)
81 {
82     return rollno;
83 }
84
85 void write_student()
86 {
87     student st;
88     ofstream outFile;
89     outFile.open("student.dat",ios::binary|ios::app);
90     st.getdata();
91     outFile.write((char *)&st, sizeof(student));
92     outFile.close();
93     cout<<"\n\nStudent record Has Been Created ";
94     cin.ignore();
95     getch();
96 }
97
98 void display_sp(int n)
```

```
99  {
100     system("CLS");
101     student st;
102     ifstream inFile;
103     inFile.open("student.dat",ios::binary);
104     if(!inFile)
105     {
106         cout<<"File could not be open !! Press any Key...";
107         getch();
108         return;
109     }
110
111     int temp=0;
112     while(inFile.read((char *) &st, sizeof(student)))
113     {
114         if(st.retrollno()==n)
115         {
116             st.showdata();
117             temp=1;
118         }
119     }
120     inFile.close();
121     if(temp==0)
122         cout<<"\n\n\tRECORD DOES NOT EXIST...!!!";
123     getch();
124 }
125
126
127
128 void modify_student(int n)
129 {
130     system("CLS");
131     int found=0;
132     student st;
133     fstream File;
134     File.open("student.dat",ios::binary|ios::in|ios::out);
135     if(!File)
136     {
137         cout<<"\n\n\tFile could not be open !!";
138         getch();
139         return;
140     }
141     while(File.read((char *) &st, sizeof(student)) && found==0)
142     {
143         if(st.retrollno()==n)
144         {
145             st.showdata();
146
147             cout<<"\n\n\tPlease Enter The New Details of student"<<endl;
```

```
148         st.getdata();
149         int pos=(-1)*sizeof(st);
150         File.seekp(pos,ios::cur);
151         File.write((char *)&st, sizeof(student));
152         cout<<"\n\n\t Record Updated";
153         found=1;
154     }
155 }
156 File.close();
157 if(found==0)
158     cout<<"\n\n\tRecord Not Found ";
159 getch();
160 }
161
162
163
164 void delete_student(int n)
165 {
166     system("CLS");
167     student st;
168     ifstream inFile;
169     inFile.open("student.dat",ios::binary);
170     if(!inFile)
171     {
172         cout<<"\n\n\tFile could not be open !! Press any Key...";
173         getch();
174         return;
175     }
176     ofstream outFile;
177     outFile.open("Temp.dat",ios::out);
178     inFile.seekg(0,ios::beg);
179     while(inFile.read((char *)&st, sizeof(student)))
180     {
181         if(st.retrollno()!=n)
182         {
183             outFile.write((char *)&st, sizeof(student));
184         }
185     }
186     outFile.close();
187     inFile.close();
188     remove("student.dat");
189     rename("Temp.dat","student.dat");
190     cout<<"\n\n\tRecord Deleted ..";
191     getch();
192 }
193
194 void result()
195 {
196     char ch;
```

```
197     int rollno;
198     system("CLS");
199     cout<<"\n\n\n\tRESULT MENU";
200     cout<<"\n\n\t1. Student Report Card";
201     cout<<"\n\n\t2. Back to Main Menu";
202     cout<<"\n\n\tEnter Choice (1/2)? ";
203     cin>>ch;
204     switch(ch)
205     {
206     case '1' :
207         cout<<"\n\n\t 711190105005: ";
208         cin>>rollno;
209         display_sp(rollno); break;
210     case '2' :
211         break;
212     default :
213         cout<<"\a";
214     }
215 }
216
217 void entry_menu()
218 {
219     char ch;
220     int num;
221     system("CLS");
222     cout<<"\n\n\n\tENTRY MENU";
223     cout<<"\n\n\t1.CREATE STUDENT RECORD";
224     cout<<"\n\n\t2.SEARCH STUDENT RECORD ";
225     cout<<"\n\n\t3.MODIFY STUDENT RECORD";
226     cout<<"\n\n\t4.DELETE STUDENT RECORD";
227     cout<<"\n\n\t5.BACK TO MAIN MENU";
228     cout<<"\n\n\tPlease Enter Your Choice (1-6) ";
229     cin>>ch;
230     switch(ch)
231     {
232     case '1':
233         write_student(); break;
234     case '2':
235         cout<<"\n\n\t 711190105005 "; cin>>num;
236         display_sp(num); break;
237     case '3':
238         cout<<"\n\n\t 711190105005 "; cin>>num;
239         modify_student(num);break;
240     case '4':
241         cout<<"\n\n\t 711190105005"; cin>>num;
242         delete_student(num);break;
243     case '5':
244         break;
245     default:
```

```
...stem in C++\Student Report Card Management System.cpp
246         cout<<"\a"; entry_menu();
247     }
248 }
249
250 int main()
251 {
252     int password(87654321);
253     password(87654321);
254     char ch;
255     cout.setf(ios::fixed|ios::showpoint);
256     cout<<setprecision(2);
257     cout<<"\n\n\t\tREPORT CARD";
258     do
259     {
260         system("CLS");
261         cout<<"\t-----";
262         cout<<"\n\t STUDENT REPORT CARD MANAGEMENT SYSTEM\n";
263         cout<<"\t-----";
264         cout<<"\n\n\t\t**MAIN MENU**";
265         cout<<"\n\n\t01. RESULT MENU";
266         cout<<"\n\n\t02. CRUD MENU";
267         cout<<"\n\n\t03. EXIT";
268         cout<<"\n\n\tPlease Select Your Option : ";
269         cin>>ch;
270         switch(ch)
271         {
272             case '1': result();
273                 break;
274             case '2': entry_menu();
275                 break;
276             case '3':
277                 system("CLS");
278                 cout<<"\n\nSTUDENT REPORT CARD MANAGEMENT SYSTEM    ↵
279                               \n\n";
280                 return 0;
281             break;
282             default :
283                 cout<<"\n\n\tError...!!!!.Wrong Choice Entered...!!!";
284         }
285     }while(ch!='3');
286
287 int password(87654321){
288     system("CLS");
289     string pass ="";
290     char ch;
291     cout<<"\n\n\n\n\t-----";
292     cout<<"\n\tSTUDENT REPORT CARD MANAGEMENT SYSTEM LOGIN\n";
293     cout<<"\t-----\n";
```

```
294     cout << "\n\n\tEnter Password: ";
295     ch = _getch();
296     while(ch != 13){
297         pass.push_back(ch);
298         cout << '*';
299         ch = _getch();
300     }
301     if(pass == "12345"){
302
303         cout << "\n\n\tAccess Granted \n\n";
304         system("PAUSE");
305     }else{
306         cout << "\n\n\tAccess Aborted...Please Try Again!\n";
307         system("PAUSE");
308         password();
309     }
310 }
311 ****Student report      ↵
312 card***** ↵
313 ****
312 Name-Kabir singh
313 Marks
314 Physics-80
315 Chemistry-90
316 Maths-90
317 English-90
318 Computer science-90
```