STUDENT MANAGEMENT SYSTEM PROJECT

Spring 2022

CSE-102L COMPUTER PROGRAMMING LAB

Group Members

Submitted by: MUHAMMAD SADEEQ

Registration No.: 21PWCSE2028

Submitted by: WASEEM SAJJAD

Registration No.: 21PWCSE2068

"On my honor, as student of University of Engineering and Technology, I have neither given nor received   unauthorized assistance on this academic work.'

Submitted to:

Engr. Abdullah Hamid

(27 July 2022)

Department of Computer Systems Engineering University of

Engineering and Technology, Peshawar

STUDENT MANAGEMENT SYSTEM PROJECT

❖ Description:

Student Management System is a simple C++ program designed for educational institutions to manage student data and a variety of other student-related data needs. The user can build, show, search, and modify student data in this Student Management System project.

A Student Information System is another name for a Student Management System (SIS). These technologies let faculty members plan their schedules and communicate with one another about students. This approach was created to make data tracking easier for both parents and administrative personnel.

❖ Objective:

The Student Management System's major goal is to keep track of Profiles, Courses, Logins, Exams, and Fees. It keeps track of all information pertaining to Profiles, Students, Fees, and Profiles. Because the project is entirely constructed at the administrative level, only the administrator has access.

❖ Topics Used From Course:

- Data structure

- Functions

- Arrays

- Variables

- Loops

- If-else statement

- Switch statement

❖Features of Student Management System:

1. Storage of student data:

This feature enables us to enter students' data and store it in the program. e.g. name, roll number, course semester, etc.

2. Show data on the screen

This feature enables us to display all the stored data in the program

3. Search for data

This feature enables us to search data of specific students by entering the roll number of a specific student

4. Update data

This feature enables us to update or make changes in the existing stored data of a specific student in the program

5. Delete data

This feature enables us to delete all the stored data in the program or delete data of a specific student by entering the roll number of that student

❖Project Code:

```cpp
 1    #include<iostream>
 2
 3    using namespace std;
 4
 5    struct{
 6    string rollno,contact,Semester,course,name;
 7    }data[1000];
 8
 9    int total=0;
10
11
12    void enter(){
13
14            int ch=0;
15
16                cout<<"How many students do u want to enter??"<<endl;
17
18                cin>>ch;
19
20                if(total==0){
21
22                total=ch+total;
23
24                for(int i=0;i<ch;i++){
25
26                    cout<<"\nEnter the Data of student "<<i+1<<endl<<endl;
27
28                    cout<<"Enter name ";
29
30                    cin>>data[i].name;
```

```cpp
31
32                    cout<<"\nEnter Roll no ";
33
34                    cin>>data[i].rollno;
35
36                    cout<<"Enter course ";
37
38                    cin>>data[i].course;
39
40                    cout<<"Enter Semesters ";
41
42                    cin>>data[i].Semester;
43
44                    cout<<"Enter contact ";
45
46                    cin>>data[i].contact;}}
47
48                else{
49
50                for(int i=total;i<ch+total;i++){
51
52                    cout<<"\nEnter the Data of student "<<i+1<<endl<<endl;
53
54                    cout<<"Enter name ";
55
56                    cin>>data[i].name;
57
58                    cout<<"\nEnter Roll no ";
59
60                    cin>>data[i].rollno;
```

```cpp
61
62                      cout<<"Enter course ";
63
64                      cin>>data[i].course;
65
66                      cout<<"Enter Semesters ";
67
68                      cin>>data[i].Semester;
69
70                      cout<<"Enter contact ";
71
72                      cin>>data[i].contact;}
73
74                      total=ch+total;}}
75
76   void show(){
77
78       if(total==0){
79
80           cout<<"No data is entered"<<endl;}
81
82       else{
83
84           for(int i=0;i<total;i++){
85                   cout<<"*******************************";
86
87                   cout<<"\nDATA OF STUDENT NO."<<i+1<<endl;
88
89                   cout<<"*******************************";
90
```

```cpp
91                   cout<<"\nName "<<data[i].name<<endl;
92
93                   cout<<"Roll no "<<data[i].rollno<<endl;
94
95                   cout<<"Course "<<data[i].course<<endl;
96
97                   cout<<"Semesters "<<data[i].Semester<<endl;
98
99                   cout<<"Contact "<<data[i].contact<<endl;}}}
100
101  void search(){
102
103      if(total==0){
104
105          cout<<"No data is entered"<<endl;}
106
107      else{
108
109      string roll_no;
110
111                  cout<<"Enter the roll no of student"<<endl;
112
113                  cin>>roll_no;
114
115                  for(int i=0;i<total;i++){
116
117                      if(roll_no==data[i].rollno){
118
119                          cout<<"\nXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"<<endl;
120
```

```cpp
121                          cout<<"Name "<<data[i].name<<endl;
122
123                          cout<<"Roll no "<<data[i].rollno<<endl;
124
125                          cout<<"Course "<<data[i].course<<endl;
126
127                          cout<<"Semesters "<<data[i].Semester<<endl;
128
129                          cout<<"Contact "<<data[i].contact<<endl;
130
131                          cout<<"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX\n";}}}}
132
133   void update(){
134
135       if(total==0){
136
137           cout<<"No data is entered"<<endl;}
138
139       else{
140
141       string roll_no;
142
143                  cout<<"Enter the roll no of student which you want to update"<<endl;
144
145                  cin>>roll_no;
146
147                       for(int i=0;i<total;i++){
148
149                       if(roll_no==data[i].rollno){
150
151                          cout<<"*****************************";
152
153                          cout<<"\nPrevious data"<<endl<<endl;
154
155                          cout<<"Data of Student "<<i+1<<endl;
156
157                          cout<<"Name "<<data[i].name<<endl;
158
159                          cout<<"Roll no "<<data[i].rollno<<endl;
160
161                          cout<<"Course "<<data[i].course<<endl;
162
163                          cout<<"Semesters "<<data[i].Semester<<endl;
164
165                          cout<<"Contact "<<data[i].contact<<endl;
166
167                          cout<<"*****************************";
168
169                          cout<<"\nEnter new data"<<endl<<endl;
170
171                             cout<<"Enter name ";
172
173                             cin>>data[i].name;
174
175                             cout<<"Enter Roll no ";
176
177                             cin>>data[i].rollno;
178
179                             cout<<"Enter course ";
180
```

32°C
Haze

3:13 PM
7/26/2022

3:14 PM
7/26/2022

```cpp
181                          cin>>data[i].course;
182
183                          cout<<"Enter Semesters ";
184
185                          cin>>data[i].Semester;
186
187                          cout<<"Enter contact ";
188
189                          cin>>data[i].contact;}}}}
190
191    void deleterecord(){
192
193        if(total==0){
194
195            cout<<"No data is entered"<<endl;}
196
197        else{
198
199            int a;
200
201                cout<<"Press 1 to delete all record"<<endl;
202
203                cout<<"Press 2 to delete specific record"<<endl;
204
205                cin>>a;
206
207                if(a==1){
208
209                    total=0;
210
```

```cpp
211                    cout<<"All record is deleted..!!"<<endl;}
212
213                else if(a==2){
214
215                string roll_no;
216
217                cout<<"Enter the roll no of student which you wanted to delete"<<endl;
218
219                cin>>roll_no;
220
221                for(int i=0;i<total;i++){
222
223                    if(roll_no==data[i].rollno){
224
225                        for(int j=i;j<total;j++){
226
227                        data[j].name=data[j+1].name;
228
229                        data[j].rollno=data[j+1].rollno;
230
231                        data[j].course=data[j+1].course;
232
233                        data[j].Semester=data[j+1].Semester;
234
235                        data[j].contact=data[j+1].contact;}
236
237                    total--;
238
239                    cout<<"Your required record is deleted"<<endl;}}}
240
```

```cpp
241                else{
242
243                    cout<<"Invalid input";}}}
244
245   main(){
246
247        int value;
248
249        while(true){
250
251        cout<<"\n*********************";
252
253        cout<<"\nPress 1 to enter data"<<endl;
254
255        cout<<"Press 2 to show data"<<endl;
256
257        cout<<"Press 3 to search data"<<endl;
258
259        cout<<"Press 4 to update data"<<endl;
260
261        cout<<"Press 5 to delete data"<<endl;
262
263        cout<<"Press 6 to exit"<<endl;
264
265        cout<<"\n*********************"<<endl;
266
267        cin>>value;
268
269        system("cls");
270
```

```cpp
271        switch(value){
272
273            case 1:
274
275                enter();
276
277                break;
278
279            case 2:
280
281                show();
282
283                break;
284
285            case 3:
286
287                search();
288
289                break;
290
291            case 4:
292
293                update();
294
295                break;
296
297            case 5:
298
299                deleterecord();
300
```

```
285            case 3:
286
287                search();
288
289                break;
290
291            case 4:
292
293                update();
294
295                break;
296
297            case 5:
298
299                deleterecord();
300
301                break;
302
303            case 6:
304
305                exit(0);
306
307                break;
308
309            default:
310
311                cout<<"Invalid input"<<endl;
312
313                break;}}}
314
```

❖Project Output:

```
************************
Press 1 to enter data
Press 2 to show data
Press 3 to search data
Press 4 to update data
Press 5 to delete data
Press 6 to exit

************************

```

Entering data

```
■ "D:\CP Projects\SELF MADE\CP PROJECT WASEEM AND SAEEQ.exe"                    —    □    ×

How many students do u want to enter??
2

Enter the Data of student 1

Enter name MUHAMMAD_SADEEQ

Enter Roll no 21PWCSE2028
Enter course Computer_Programming
Enter Semesters 2nd
Enter contact 03439714653

Enter the Data of student 2

Enter name Waseem_Sajjad

Enter Roll no 21PWCSE2068
Enter course Computer_programming
Enter Semesters 2nd
Enter contact 03427847928

**********************
Press 1 to enter data
```
```
☁ 32°C           ⊞ ₽ ▭ ◙ ▬ ● ◙ ▪ ● ▣          ∧ 奈 ◁》 ▯  3:25 PM
  Haze                                                        7/26/2022
```

Displaying data

```
■ "D:\CP Projects\SELF MADE\CP PROJECT WASEEM AND SAEEQ.exe"                    —    □    ×
****************************
DATA OF STUDENT NO.1
****************************
Name MUHAMMAD_SADEEQ
Roll no 21PWCSE2028
Course Computer_Programming
Semesters 2nd
Contact 03439714653
****************************
DATA OF STUDENT NO.2
****************************
Name Waseem_Sajjad
Roll no 21PWCSE2068
Course Computer_programming
Semesters 2nd
Contact 03427847928

**********************
Press 1 to enter data
Press 2 to show data
Press 3 to search data
Press 4 to update data
Press 5 to delete data
```
```
☁ 32°C           ⊞ ₽ ▭ ◙ ▬ ● ◙ ▪ ● ▣          ∧ 奈 ◁》 ▯  3:25 PM
  Haze                                                        7/26/2022
```

Searching data

```
■ "D:\CP Projects\SELF MADE\CP PROJECT WASEEM AND SAEEQ.exe"                                    —    □    ×
Enter the roll no of student
21PWCSE2028

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Name MUHAMMAD_SADEEQ
Roll no 21PWCSE2028
Course Computer_Programming
Semesters 2nd
Contact 03439714653
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

**********************
Press 1 to enter data
Press 2 to show data
Press 3 to search data
Press 4 to update data
Press 5 to delete data
Press 6 to exit

**********************
```

Updating student data

```
■ "D:\CP Projects\SELF MADE\CP PROJECT WASEEM AND SAEEQ.exe"                                    —    □    ×
Enter the roll no of student which you want to update
21PWCSE2028
****************************
Previous data

Data of Student 1
Name MUHAMMAD_SADEEQ
Roll no 21PWCSE2028
Course Computer_Programming
Semesters 2nd
Contact 03439714653
****************************
Enter new data

Enter name M.SADEEQ
Enter Roll no 21PWCSE2020
Enter course Applied_Physics
Enter Semesters 3rd
Enter contact 111-222-333

**********************
Press 1 to enter data
Press 2 to show data
```

Deleting data

```
"D:\CP Projects\SELF MADE\CP PROJECT WASEEM AND SAEEQ.exe"

Press 1 to delete all record
Press 2 to delete specific record
1
All record is deleted..!!

***********************
Press 1 to enter data
Press 2 to show data
Press 3 to search data
Press 4 to update data
Press 5 to delete data
Press 6 to exit

***********************
```