Assignment10.cpp

```cpp
1   #include <iostream>
2   #include <fstream>
3   #include <algorithm>
4   #include <string>
5   using namespace std;
6
7   void add_record(){
8       fstream file;
9       file.open("StudentRecord.txt", ios::app);
10      string name, address;
11      int roll;
12      char division;
13      cout << "Enter name: (Use underscore instead of space) ";
14      cin >> name;
15      for(int i = 0; i < name.length(); i++){
16          if(name[i] == '_'){
17              name[i] = ' ';
18          }
19      }
20      cout << "Enter address: (Use underscore instead of space) ";
21      cin >> address;
22      for(int i = 0; i < address.length(); i++){
23          if(address[i] == '_'){
24              address[i] = ' ';
25          }
26      }
27
28      cout << "Enter roll no: ";
29      cin >> roll;
30      cout << "Enter division: ";
31      cin >> division;
32      file << roll << " " << name << " " << division <<" "<<address << endl;
33      file.close();
34  }
35
36  string search(){
37      fstream file;
38      file.open("StudentRecord.txt");
39      int roll;
40      cout<<"Enter roll number of student to be found: ";
41      cin>>roll;
42      string line;
43      while(getline(file,line)){
44          string temp = line.substr(0,4);
45          if(temp == to_string(roll)){
46              return line;
47              break;
48          }
49      }
50      return "Record not found";
```

```cpp
51
52
53  }
54  void display(){
55      fstream file;
56      file.open("StudentRecord.txt");
57      string line;
58      while(getline(file, line)){
59          cout << line << endl;
60      }
61      file.close();
62  }
63
64  void deleteLine(){
65      bool found = false;
66      fstream file,tempf,f2;
67      file.open("StudentRecord.txt");
68      int roll;
69      cout<<"Enter roll number of student to be deleted: ";
70      cin>>roll;
71      string line;
72      tempf.open("temp.txt",std::ios::out);
73      while(getline(file,line)){
74          string temp = line.substr(0,4);
75          if(temp == to_string(roll)){
76              found = true;
77              continue;
78
79          }else{
80              tempf << line << endl;
81          }
82      }
83      file.close();
84      remove("StudentRecord.txt");
85      tempf.close();
86      rename("temp.txt","StudentRecord.txt");
87      if(found){
88          cout<<"Record deleted successfully\n";
89      }else{
90          cout<<"Record not found\n";
91      }
92
93
94  }
95
96  int main(){
97      int choice;
98      do{
99          cout << "1. Add record\n2. Search record\n3. Display all records\n4.
    Delete\n5.Exit\nEnter your choice: ";
100         cin >> choice;
101         switch(choice){
102             case 1:
```

```cpp
103                      add_record();
104                  break;
105              case 2:
106                  cout << search() << endl;
107                  break;
108              case 3:
109                  display();
110                  break;
111              case 4:
112                  deleteLine();
113                  break;
114              case 5:
115                  cout << "Exiting\n";
116                  break;
117
118              default:
119                  cout << "Invalid choice\n";
120          }
121      }while(choice != 5);
122      return 0;
123
124
125  }
126
127  /*
128  Output:
129  1. Add record
130  2. Search record
131  3. Display all records
132  4. Delete
133  5.Exit
134  Enter your choice: 1
135  Enter name: (Use underscore instead of space) Neevan_Redkar
136  Enter address: (Use underscore instead of space) Sinhagad_Road,Pune-30
137  Enter roll no: 3069
138  Enter division: B
139  1. Add record
140  2. Search record
141  3. Display all records
142  4. Delete
143  5.Exit
144  Enter your choice: 1
145  Enter name: (Use underscore instead of space) Aryan_Parihar
146  Enter address: (Use underscore instead of space) Dhayri_Phata,Pune-41
147  Enter roll no: 3030
148  Enter division: C
149  1. Add record
150  2. Search record
151  3. Display all records
152  4. Delete
153  5.Exit
154  Enter your choice: 1
155  Enter name: (Use underscore instead of space) Aryan_Dhamdhere
```

```
156  Enter address: (Use underscore instead of space) Warje,Pune-52
157  Enter roll no: 3074
158  Enter division: H
159  1. Add record
160  2. Search record
161  3. Display all records
162  4. Delete
163  5.Exit
164  Enter your choice: 2
165  Enter roll number of student to be found: 3080
166  Record not found
167  1. Add record
168  2. Search record
169  3. Display all records
170  4. Delete
171  5.Exit
172  Enter your choice: 2
173  Enter roll number of student to be found: 3030
174  3030 Aryan Parihar C Dhayri Phata,Pune-41
175  1. Add record
176  2. Search record
177  3. Display all records
178  4. Delete
179  5.Exit
180  Enter your choice: 1
181  Enter name: (Use underscore instead of space) Riddhi_Shete
182  Enter address: (Use underscore instead of space) ????
183  Enter roll no: 3067
184  Enter division: ?
185  1. Add record
186  2. Search record
187  3. Display all records
188  4. Delete
189  5.Exit
190  Enter your choice: 1
191  Enter name: (Use underscore instead of space) Chirag_Budhbaware
192  Enter address: (Use underscore instead of space) Near_PVG,Pune-09
193  Enter roll no: 3059
194  Enter division: B
195  1. Add record
196  2. Search record
197  3. Display all records
198  4. Delete
199  5.Exit
200  Enter your choice: 4
201  Enter roll number of student to be deleted: 3067
202  Record deleted successfully
203  1. Add record
204  2. Search record
205  3. Display all records
206  4. Delete
207  5.Exit
208  Enter your choice: 3
```

```
209  3069 Neevan Redkar B Sinhagad Road,Pune-30
210  3030 Aryan Parihar C Dhayri Phata,Pune-41
211  3074 Aryan Dhamdhere H Warje,Pune-52
212  3059 Chirag Budhbaware B Near PVG,Pune-09
213  1. Add record
214  2. Search record
215  3. Display all records
216  4. Delete
217  5.Exit
218  Enter your choice: 4
219  Enter roll number of student to be deleted: 3069
220  Record deleted successfully
221  1. Add record
222  2. Search record
223  3. Display all records
224  4. Delete
225  5.Exit
226  Enter your choice: 3
227  3030 Aryan Parihar C Dhayri Phata,Pune-41
228  3074 Aryan Dhamdhere H Warje,Pune-52
229  3059 Chirag Budhbaware B Near PVG,Pune-09
230  1. Add record
231  2. Search record
232  3. Display all records
233  4. Delete
234  5.Exit
235  Enter your choice: 1
236  Enter name: (Use underscore instead of space) Neevan_Redkar
237  Enter address: (Use underscore instead of space) Sinhagad_Road,Pune-30
238  Enter roll no: 3069
239  Enter division: B
240  1. Add record
241  2. Search record
242  3. Display all records
243  4. Delete
244  5.Exit
245  Enter your choice: 2
246  Enter roll number of student to be found: 3067
247  Record not found
248  1. Add record
249  2. Search record
250  3. Display all records
251  4. Delete
252  5.Exit
253  Enter your choice: 3
254  3030 Aryan Parihar C Dhayri Phata,Pune-41
255  3074 Aryan Dhamdhere H Warje,Pune-52
256  3059 Chirag Budhbaware B Near PVG,Pune-09
257  3069 Neevan Redkar B Sinhagad Road,Pune-30
258  1. Add record
259  2. Search record
260  3. Display all records
261  4. Delete
```

```
262  5.Exit
263  Enter your choice: 5
264  Exiting
265
266
267
268  */
```