

Lesson

4

Assignment

Student Grades Database

Course obj. being tested: Classes, data abstraction, encapsulation, file I/O and search.

You are required to create a Student Grade Management Database for Highline Community College using CLASSES.

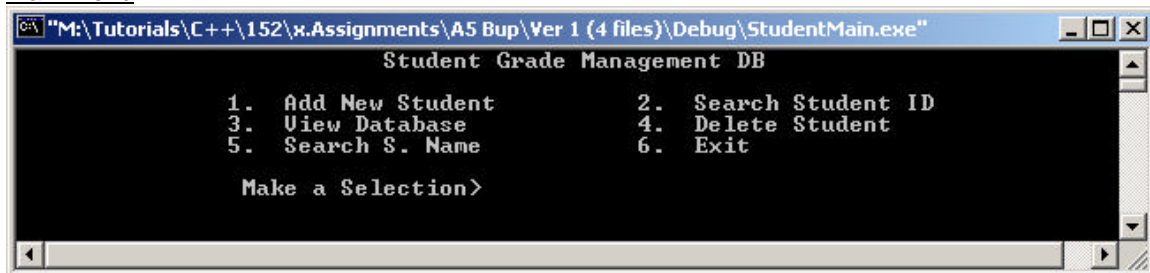
Following is the structure of the student CLASS.

```
class student
{
    private:
        int Student_ID;
        float Grade;
        char StudName[20],Zip[6];
    public:
        void Add_Stud();
        void Search_ID();
        void Disp_All();
        void Del_Stud();
        void last_StudID();
        void SearchName();
};
```

The program must facilitate the following functionalities.

Screen Outputs :-

Main Menu



```
"M:\Tutorials\C++\152\A.Assignments\A5 Bup\Ver 1 (4 files)\Debug\StudentMain.exe"
Student Grade Management DB
1. Add New Student      2. Search Student ID
3. View Database       4. Delete Student
5. Search S. Name      6. Exit
Make a Selection>
```

1. Add new student

```

M:\Tutorials\C++\152\Assignments\A5 Bup\Ver 1 (4 files)\Debug\StudentMain.exe
Student ID: 1986
Student Name: Igor Glozman
Student Grade: 3.8
Student Zip Code: 98034
Are you sure you want to add this record [Y/N]: y
                Record Updated Successfully

Enter another record [Y/N]: _

```

2. Search Student By Name (Ravinder Kang)

```

M:\Tutorials\C++\152\Assignments\A5 Bup\Ver 1 (4 files)\Debug\StudentMain.exe

                Student Found!

ID #: 1983
Grade: 4.0
Zip Code: 98123

Search Again [Y/N]:

```

3. Search Student By ID

```

M:\Tutorials\C++\152\Assignments\A5 Bup\Ver 1 (4 files)\Debug\StudentMain.exe

Enter ID to be searched: 1981

Name: Uiktor Josetf
Grade: 3.9
Zip: 98198

                Search Again [Y/N]:

```

4. View Database

```

M:\Tutorials\C++\152\Assignments\A5 Bup\Ver 1 (4 files)\Debug\StudentMain.exe

1980      Ryan Molden      98001
1982      Ramone Hildreth 98001
1983      Ravinder Kang   98123
1984      Julio U`Chong   98119
1985      Phillip Morri   98001
1986      Igor Glozman    98034
                <Press Any Key To Continue>
-

```

5. Delete Student

```

M:\Tutorials\C++\152\Assignments\A5 Bup\Ver 1 (4 files)\Debug\StudentMain.exe

Enter ID # of Student to Delete: 1981
                Student Deleted

Delete another [Y/N]:

```

Program Requirements

[0] Not implemented **[1]** Not Working **[2]** Partially Working **[3]** Fully Functional

1. Full Program Functionality	[0]	[5]		
2. Use of OOP	[0]	[1]	[2]	[3]
3. Read from file	[0]	[1]	[2]	[3]
4. Write to file	[0]	[1]	[2]	[3]
5. Student ID must be generated automatically (incremented)	[0]	[1]	[2]	[3]
6. Add new Student	[0]	[1]	[2]	[3]
7. View Database (all records)	[0]	[1]	[2]	[3]
8. Search by Student ID	[0]	[1]	[2]	[3]
9. Search by Student Name	[0]	[1]	[2]	[3]
10. Delete Student record	[0]	[1]	[2]	[3]

Annotation / Documentation

[0] None **[1]** Incorrect **[2]** Partially Correct **[3]** Perfect

Annotation	[0]	[1]	[2]	[3]
Consistency & neatness (JSP / Word processed)	[0]	[1]	[2]	[3]
Zip Disk clipped or in a folder & this sheet included at <u>the front</u>	[0]	[2]		

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NAME : _____