



Green University of Bangladesh

Department of Computer Science and Engineering (CSE)

Faculty of Sciences and Engineering

Semester: (FALL, Year: 2021), B.Sc. in CSE (Day)

Course Title: Data Structure Lab

Course Code: 106

Section: 211 DC

Lab Project Name: Student Management System

Student Details

Name		ID
1.	Mahbubullah	211002084

Submission Date : 03-01-2022

Course Teacher's Name : Tamim Al Mahmud

[For Teachers use only: Don't Write Anything inside this box]

Lab Project Status

Marks:

Signature:

Comments:

Date:

Table of Contents

Chapter 1 Introduction	3
1.1 Introduction:.....	3
1.2 Design Goals/Objective:	3
Chapter 2	4
Implementation of the Project	4
2.1 Functions:.....	4
2.2 Tools	4
Chapter 3 Performance Evaluation	5
3.1 Simulation Environment/ Simulation Procedure.....	5
3.2 Results and Discussions	8
Chapter 4 Conclusion	9
4 Introduction.....	9
4.1 Practical Implications	9
4.2 Scope of Future Work.....	9
References	10

Chapter 1

Introduction

1.1 Introduction:

Student management system is a basic C++ program where all student basic information could store and managed in a secure way. These systems work to coordinate communications between faculty regarding students. This system exists to simplify information tracking a student.

1.2 Design Goals/Objective:

Since I want to be a computer programmer, I've to be practiced with solving any of the problems in my daily life using advanced technology. Hence I gonna making a project to maintain student management by using a computer program. It would be:

- Time saving to find a student's information,
- Making student management system smarter,
- Helping me to gather a huge amount of knowledge by implementing it.

Chapter 2

Implementation of the Project

2.1 Functions:

In this project I've used about 5 user define functions. Which are described below:

- ❖ `add_student()`: Used for adding a student information in the database.
- ❖ `find_student()` : Search a particular by student ID; if the student belong here.
- ❖ `update_student()` : Used for update a student information in the database.
- ❖ `delete_student()` : Remove a student informatio from the database.
- ❖ `display_all()` : Used for all student information in one time.

2.2 Tools

I've used structure, string, user define functions, `getline()`, various types of loop (for, while, do ... while) - for handling database.

Chapter 3

Performance Evaluation

3.1 Simulation Environment/ Simulation Procedure

- ❖ If we press 1 then we will be able to add such things
Such as:
Student ID, Student name, Address, date of birth batch, blood group, section and phone number as well.

```
ENTER YOUR CHOICE: 1
Enter Student ID: 211002151
Enter Student Name: Jubayer hossain raju
Enter Address: Mohammadpur
Enter Date of Birth: 01 feb 20001
Enter Blood Group: AB+
Enter Batch Name: 211
Enter Phone number: 01862000584
```

```
.....
. Student information ADD Successfully .
.....
```

```
ENTER YOUR CHOICE: 1
Enter Student ID: 211002084
Enter Student Name: Mahbubullah
Enter Address: Salanga,Sirajganj
Enter Date of Birth: 01 jan 2001
Enter Blood Group: B+
Enter Batch Name: 211
Enter Phone number: 01909598003
```

```
.....
. Student information ADD Successfully .
.....
```

- ❖ If we press 2 we will be able to find students' information. Here I need a student ID for search. If inputted id don't match with our data base's ID it will be print "No student data found".

```
ENTER YOUR CHOICE: 2
Enter Student ID: 211002084
-----
| Student ID: 211002084
| Student Name: Mahbubullah
| Address: Salanga,Sirajganj
| Date of Birth: 01 jan 2001
| Blood group: B+
| Batch Name: 211
| Phone number: 01909598003
|-----
```

```
ENTER YOUR CHOICE: 2
Enter Student ID: 211002109
.....
. NO Student DATA found!! .
.....
```

- ❖ If we press 3 then we can update student's information. here we also need a student ID, then it search in database .if inputted data match we can update else it will print No student data found”

```
ENTER YOUR CHOICE: 3
Enter Student ID: 211002084
```

```
-----
| Student ID: 211002084
| Student Name: Mahbubullah
| Address: Salanga,Sirajganj
| Date of Birth: 01 jan 2001
| Blood group: B+
| Batch Name: 211
| Phone number: 01909598003
|
|-----
```

```
1. UPDATE ID
2. UPDATE NAME
3. UPDATE ADDRESS
4. UPDATE DATE OF BIRTH
5. UPDATE BLOOD GROUP
6. UPDATE BATCH
7. UPDATE PHONE NUMBER
0. HOME
```

```
1. UPDATE ID
2. UPDATE NAME
3. UPDATE ADDRESS
4. UPDATE DATE OF BIRTH
5. UPDATE BLOOD GROUP
6. UPDATE BATCH
7. UPDATE PHONE NUMBER
0. HOME
```

```
ENTER YOUR CHOICE: 3
```

```
Enter Address: Sirajganj
```

```
.....
. Student information UPDATE Successfully .
.....
```

```
ENTER YOUR CHOICE: 3
Enter Student ID: 211002070
```

```
.....
. NO Student DATA found!! .
.....
```

- ❖ If we press 4 then we can delete students information here we also need a student ID, then it search in database .if inputted data match we can delete else it will print “No student data found”

```
ENTER YOUR CHOICE: 4
Enter Student ID: 211002084
```

```
-----
| Student ID: 211002084
| Student Name: Mahbubullah
| Address: Sirajganj
| Date of Birth: 01 jan 2001
| Blood group: B+
| Batch Name: 211
| Phone number: 01909598003
|
|-----
```

```
.....
. Student information DELETE Successfully .
.....
```

```
ENTER YOUR CHOICE: 4
Enter Student ID: 211002076
```

```
.....
. NO Student DATA found!! .
.....
```

- ❖ If we press 5 option then all students' information will be displayed.

Display before Delete an information:

```
ENTER YOUR CHOICE: 5
-----
| Student ID: 211002084
| Student Name: Mahbubullah
| Address: Sirajganj
| Date of Birth: 01 jan 2001
| Blood group: B+
| Batch Name: 211
| Phone number: 01909598003
|
|-----
| Student ID: 211002151
| Student Name: Jubayer hossain raju
| Address: Mohammadpur
| Date of Birth: 01 feb 20001
| Blood group: AB+
| Batch Name: 211
| Phone number: 01862000584
|
|-----
```

Display after Delete an information:

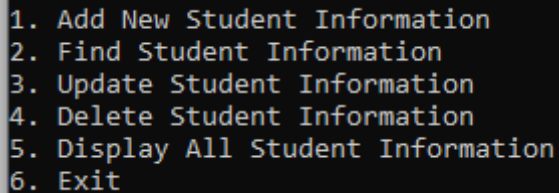
```
ENTER YOUR CHOICE: 5
-----
| Student ID: 211002151
| Student Name: Jubayer hossain raju
| Address: Mohammadpur
| Date of Birth: 01 feb 20001
| Blood group: AB+
| Batch Name: 211
| Phone number: 01862000584
|
|-----
| Student ID:
| Student Name:
| Address:
| Date of Birth:
| Blood group:
| Batch Name:
| Phone number:
|
|-----
```

- ❖ Finally, If we press 6 program will be exit.

```
ENTER YOUR CHOICE: 6
Exit
```

3.2 Results and Discussions

This is the main menu of my project. Just entering anyone key from we can find our individual placement which we want. Such as add, find, update, delete, and display.



```
1. Add New Student Information
2. Find Student Information
3. Update Student Information
4. Delete Student Information
5. Display All Student Information
6. Exit
```

3.2.1 Analysis and Outcome

This program will very helpful to maintaining an educational institution in a while just employing a one computer only.

Chapter 4

Conclusion

4 Introduction

Good management offers better productivity and hence more progress towards development. Since The Interface of the program is user-friendly, and the program is easy for use and it is possible to use for any of educational institute.

4.1 Practical Implications

When we implement student database management software it allows it we to reduce our expenses and increase our efficiency at the same time. There are so many benefits of being able to maintain various services at a really low cost, reducing the number of people employed to manage the institute ,automating the entire operation of administration etc. This means that as an education institution we get a lot of freedom from manual work.

4.2 Scope of Future Work

In the future student can also be able to upload or download notes.

A few more minor tweaks here and there for making the application, Tracking and Analytics.

The whole project will be made available as an android app for more ease of use and mobility

References

1. C++: The Complete Reference, 4th Edition by Herbert Schildt
2. <https://www.programiz.com/cpp-programming/structure>
3. <https://www.geeksforgeeks.org/strcpy-in-c-cpp/>.