



Course: Advanced Programming

Subject: Project 2 report

Group number: 2

| Name | SID |
|----------------------|-----------|
| Omar Amjad Abouellil | 441018030 |
| Mohammed Sami Soqati | 441010207 |

Database and table creation:

```
1 • create database StudentsDB_GUI_Abouellil_Soqati;
2 • use StudentsDB_GUI_Abouellil_Soqati;
3
4 • create table StudentsTBL_Omar_Mohammed(
5   ID integer NOT NULL AUTO_INCREMENT,
6   FullName varchar(40) NOT NULL,
7   DateOfBirth date NOT NULL,
8   GPA float NOT NULL,
9   PRIMARY KEY (ID));
```

Program's Main Menu:

Student Database Management System

Add Student | Browse all students

Participating Students | SID | Group | Email Address |

| | | | |
|----------------------|-----------|---|-------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stuqu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stuqu.edu.sa |

Name:

Date of Birth:

GPA: 0.00

Assumptions:

- The user will start in the Add Student tab.
- a database and table is already made for the user.

Viewing the table while it's empty:

Student Database Management System

Add Student | Browse all students

Participating Students | SID | Group | Email Address |

| | | | |
|----------------------|-----------|---|-------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stuqu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stuqu.edu.sa |

Please enter a name to search for - "don't write name to view all data"

- Table is Empty!

| ID | Full Name | Date Of Birth | GPA |
|---------------------|-----------|---------------|-----|
| No content in table | | | |

Inserting a record into the table(Add Student Tab)

Assumptions:

- The User will be presented with an empty Name Textfield and DatePicker and a Slider for the GPA value initialized to 0.
 - If the user inputs any numbers or special characters in the Name TextField or leave it empty they will be presented with a special error message Label for the issue at the bottom once they click Save and the text field's background will become red.
 - If the user picks a date in the future or doesn't pick anything at all they will be presented with a special error message for the issue they made at the bottom once they click Save and the text field's background will become red.
 - The GPA slider can only accept values from 0.0 to 4.0 and depending on which GPA value is chosen the color will change
Red(0.0-1.0)/**Orange**(1.01-2.0)**Yellow**(2.01-3.0)/**Green**(3.01-4.0)
 - If the user inputs Everything correctly and click save they will get a message at the bottom telling them the Student has been added to the table successfully.
-

User Inputs name:

The screenshot shows the 'Add Student' form in the 'Student Database Management System'. At the top, there are two tabs: 'Add Student' and 'Browse all students'. Below the tabs is a table of existing students:

| Participating Students | SID | Group | Email Address |
|------------------------|-----------|-------|-------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stuqu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stuqu.edu.sa |

Below the table, the form has three input fields: 'Name' with the value 'ali', 'Date of Birth' with a calendar icon, and 'GPA' with a slider set to 0.00. At the bottom are 'Save' and 'Exit' buttons.

User uses Numbers or symbols in the name Input:

The screenshot shows the 'Add Student' form with the name input field containing 'm7md'. Below the form, two error messages are displayed in red text:

- Name must only contain alphabet letters
- Date can't be Empty

User Picks date:

The screenshot shows the 'Add Student' form with the name input field empty and the date of birth input field set to '11/1/2015'. The GPA slider is still at 0.00. The 'Save' and 'Exit' buttons are at the bottom.

User Picks a date in the future:

Student Database Management System

Add Student Browse all students

| Participating Students | SID | Group | Email Address |
|------------------------|-----------|-------|-------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stuqu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stuqu.edu.sa |

Name: mohammed

Date of Birth: 1/1/2030

GPA: 0.00

Save Exit

- Date can't be in the future

User chooses GPA:

Student Database Management System

Add Student Browse all students

| Participating Students | SID | Group | Email Address |
|------------------------|-----------|-------|-------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stuqu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stuqu.edu.sa |

Name: Enter Student's Full name

Date of Birth: Select Date of Birth

GPA: 3.00

Save Exit

User Chooses a GPA and the color changes:

Student Database Management System

Add Student Browse all students

| Participating Students | SID | Group | Email Address |
|------------------------|-----------|-------|-------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stuqu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stuqu.edu.sa |

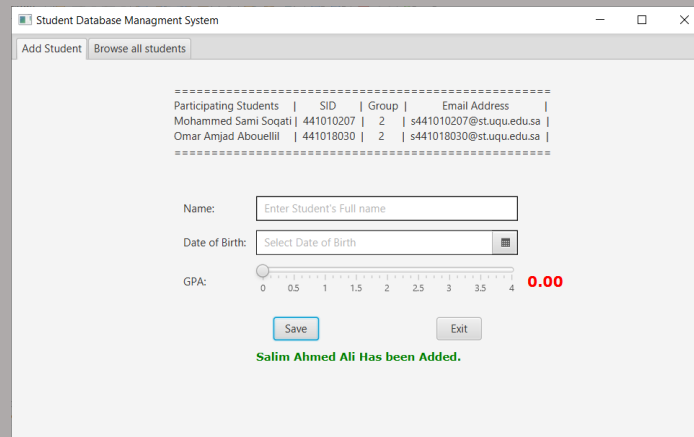
Name: Salim Ahmed Ali

Date of Birth: 11/20/2018

GPA: 2.50

Save Exit

Adding a Student Successfully:



Student Database Management System

Add Student | Browse all students

| Participating Students | SID | Group | Email Address |
|------------------------|-----------|-------|--------------------------|
| Mohammed Sami Soqati | 441010207 | 2 | s441010207@stu.qu.edu.sa |
| Omar Amjad Abouellil | 441018030 | 2 | s441018030@stu.qu.edu.sa |

Name:

Date of Birth:

GPA:

Salim Ahmed Ali Has been Added.

Displaying the table's content(Browse Table Tab)

Assumptions:

- Once the user enters the tab they will see the content of the table and if they change and come back to the Tab it will be refreshed.
- If the User leaves the Search TextField empty and click the Search Button the table will refresh.
- If the user inputs any value that contains numbers or special characters and click Search they will get a message at the bottom telling them the input is wrong and the table won't search and the text field's background will become red
- If the user inputs a correct name and click the Search Button the table will refresh and show them any record that contained their entered value.
- If the user clicks refresh the table will refresh and display all content.

[illegible][illegible][illegible]

User inputs a name that isn't found inside the table:

The screenshot shows a window titled "Student Database Management System". It has two tabs: "Add Student" and "Browse all students". The "Browse all students" tab is active, displaying a table of participating students. Below the table is a search bar containing the text "salma". To the right of the search bar are three buttons: "Search", "Refresh", and "Exit". Below the buttons, a red message states "- salma Is Not In The Table". The table on the right is empty, with the text "No content in table" centered.

| ID | Full Name | Date Of Birth | GPA |
|----|-----------|---------------|-----|
|----|-----------|---------------|-----|

User inputs a value containing a number or a special character in Search bar:

The screenshot shows the same "Student Database Management System" window. The search bar now contains the text "m7md". The "Search" button is highlighted. Below the buttons, a red message states "- Name must only contain alphabet letters". The table on the right now displays five rows of student data.

| ID | Full Name | Date Of Birth | GPA |
|----|------------------|---------------|------|
| 1 | Salim Ahme... | 2018-11-20 | 2.5 |
| 2 | Mohamme... | 2001-03-29 | 3.95 |
| 3 | Omar Amg... | 1998-08-12 | 3.85 |
| 4 | Mohamme... | 1970-09-07 | 4.0 |
| 5 | Ali Khalid AL... | 2003-01-01 | 2.79 |

Clicking the Refresh button(Refreshes the database and rests search bar value):

The screenshot shows the 'Student Database Management System' window. It has two tabs: 'Add Student' and 'Browse all students'. The 'Browse all students' tab is active. On the left, there is a text area displaying student data in a table format. Below this is a search bar with the placeholder text 'Please enter a name to search for - "don't write name to view all data"'. Below the search bar are three buttons: 'Search', 'Refresh' (highlighted in blue), and 'Exit'. On the right, there is a table with the following data:

| ID | Full Name | Date Of Birth | GPA |
|----|------------------|---------------|------|
| 1 | Salim Ahme... | 2018-11-20 | 2.5 |
| 2 | Mohamme... | 2001-03-29 | 3.95 |
| 3 | Omar Amg... | 1998-08-12 | 3.85 |
| 4 | Mohamme... | 1970-09-07 | 4.0 |
| 5 | Ali Khalid AL... | 2003-01-01 | 2.79 |

Exiting the program:

The image contains two side-by-side screenshots of the 'Student Database Management System' window. The left screenshot shows the 'Add Student' tab active, with fields for Name, Date of Birth, and GPA, and buttons for 'Save' and 'Exit'. The right screenshot shows the 'Browse all students' tab active, with the same search bar and buttons as the first screenshot. In both screenshots, an arrow points to the 'Exit' button.

Assumptions:

- When the user clicks the exit button on either tab the program will close.