

Q1:

Create a database StudentFinal. Create two tables:

student

ID	StudentName	Program	Semester	Gender
1	John	CSIS	1	Male
2	Mary	CBA	2	Female
3	Rony	CSIS	1	Other

feecourse

ID	Program	Course	Fee
1	CSIS	CSIS2200	1000
2	CSIS	CSIS3300	1200
3	CSIS	CSIS2175	1300
4	CBA	CBA2211	900
5	CBA	CBA1100	950

Create a GUI in Javafx

TabPane is used to create two tabs.

1. Enter a New Student
2. Calculate Fee

In Calculate Fee tab, make GUI as shown below.

The screenshot shows a JavaFX window titled "Student Information Centre" with two tabs: "Enter a New Student" and "Calculate Fee". The "Calculate Fee" tab is active and displays the following components:

- A red text label: "Calculate Total Fee to be Paid by the Student".
- A "Student Id" label next to a text input field and a "Find" button.
- A "Student Name" label next to a text input field with the placeholder text "Name of the student".
- A "Student Program" label next to a text input field with the placeholder text "Program Opted by the student".
- A "Courses Eligible" label next to a dropdown menu.
- A "Course Opted" button.
- A table with two columns: "Course Opted" and "Fee (\$)". The table is currently empty, displaying "No content in table".
- At the bottom, there are two buttons: "Total Fee" and "Close".

Find Button

If you press **Find** button without putting anything in student id, alert appears informing empty student id textfield.

The screenshot shows the 'Student Information Centre' window with the 'Calculate Fee' tab selected. The 'Calculate Total Fee to be Paid by the Student' section is active. The 'Student Id' field is empty, and the 'Find' button is visible. Below this, the 'Missing Information' dialog box is displayed, showing an information icon and the message 'Student ID can not be Empty'. The dialog has an 'OK' button. At the bottom of the main window, there are 'Total Fee' and 'Close' buttons.

If you try to find information (in student table) about student whose record does not exist in database, message appears (alert) informing no record for that student id.

The screenshot shows the 'Student Information Centre' window with the 'Calculate Fee' tab selected. The 'Calculate Total Fee to be Paid by the Student' section is active. The 'Student Id' field contains the value '12', and the 'Find' button is visible. Below this, the 'Wrong Information' dialog box is displayed, showing an information icon and the message 'No Record exists for this student id'. The dialog has an 'OK' button. At the bottom of the main window, there are 'Total Fee' and 'Close' buttons.

If you enter a valid student id whose record exists in database, student name and program labels are populated.

Student Information Centre

Enter a New Student Calculate Fee

Calculate Total Fee to be Paid by the Student

Student Id Find

Student Name Rony

Student Program CSIS

Courses Eligible

Course Opted

Course Opted	Fee (\$)
No content in table	

Total Fee Close

In addition to populating information about student name and program, information about the student program is selected from feecourse table and populated in Courses eligible choice box.

ID	Program	Course	Fee
1	CSIS	<u>CSIS2200</u>	1000
2	CSIS	<u>CSIS3300</u>	1200
3	CSIS	<u>CSIS2175</u>	1300
4	CBA	CBA2211	900
5	CBA	CBA1100	950

Student Information Centre

Enter a New Student Calculate Fee

Calculate Total Fee to be Paid by the Student

Student Id Find

Student Name Rony

Student Program CSIS

Courses Eligible

Course Opted	Fee (\$)
No content in table	

Total Fee Close

On selecting course from Courses Eligible choice box and pressing **Course Opted** button, information about said course and its fee is added in table view.

(Hint: You can create a class Course with Courses Opted and Fee as its attributes.)

Student Information Centre

Enter a New Student Calculate Fee

Calculate Total Fee to be Paid by the Student

Student Id Find

Student Name Rony

Student Program CSIS

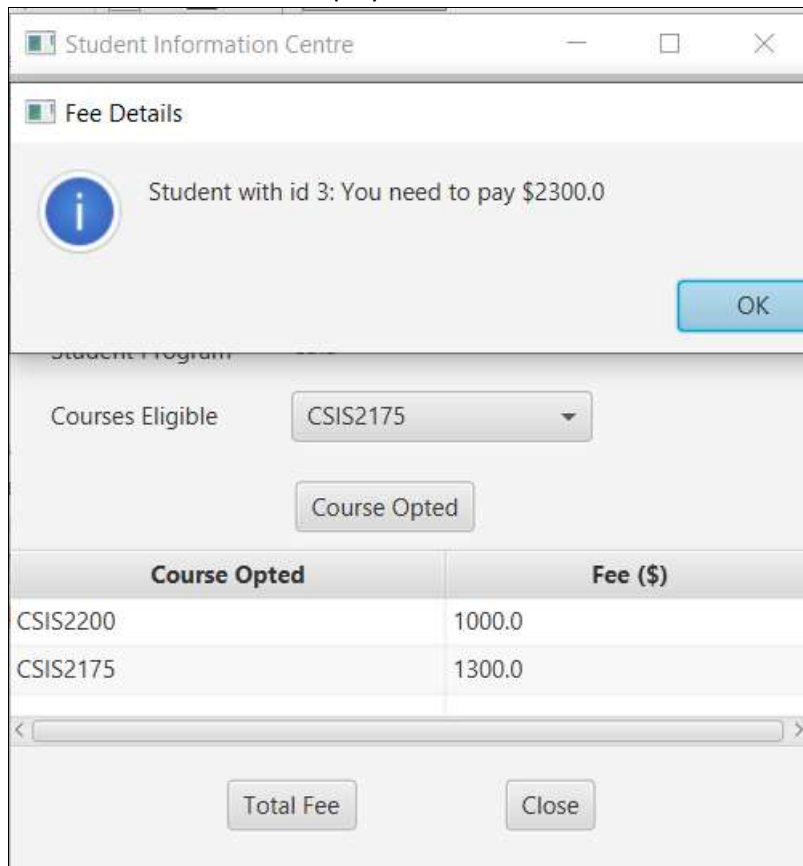
Courses Eligible

Course Opted

Course Opted	Fee (\$)
CSIS2200	1000.0

Total Fee Close

On pressing **Total Fee** button, it calculates total fee to be paid by summing up fee of all the courses in table view. An alert is displayed with the information.



On pressing **Close** button, application closes.

Save the contents (along with access database) in a folder name P followed by your student id.

Since Student Id textfield returns String, so to select student with Student Id entered in GUI, you can use `Integer.parseInt` method

Grading:

1. Successfully run the program and show the GUI (10%)
2. Correctly implement the "Find" button and populate Courses Eligible Choice Box (10%).
3. Correctly implement the button "Course Opted" action and add item to the table view (50%). In case you use List view instead of table view, 5% marks will be deducted.
4. Correctly implement the button "Total Fee" action (20%).
5. All appropriate alerts are displayed (10%) and close button closes the application.