

Total Marks: 100; Duration: 90 minutes

Create a NetBeans project with the name: "Midterm_yourId_secNo". Ex: "Midterm_1234567_sec1"

Now, consider the following **MidExamScene.FXML** scene:

Enter Student ID: <input type="text" value="1234567"/> <input checked="" type="checkbox"/> Has Scholarship? Scholarship % ? <input type="text" value="50"/>	Select Course: <input type="text" value="CSE213L"/> No of Credits <input type="text" value="1"/> Select Section: <input type="text" value="2"/>	Add the course to Register	Proceed to Register
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After Registration, the registered course detail is:

Student ID: 1234567, Scholarship: true, 50%, Tuition fee per credit: 6000 Tk

Registered Courses:

Course: MAT201, Credit: 3, Sec: 2

Course: CSC303, Credit: 3, Sec: 3

Course: CSC303L, Credit: 1, Sec: 3

Course: CSC213, Credit: 3, Sec: 2

Course: CSC213L, Credit: 1, Sec: 2

Credits enrolled: 11. Total payable: 33000 Tk

Select Course Type: <input checked="" type="radio"/> Theory <input type="radio"/> Lab Select Section: <input type="text" value="2"/> <input type="button" value="Show no of selected type courses having same section number"/>	No of Theory courses having section-2 is: 2
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Note:

- You need to add 10 courses in course ComboBox
- When a course is selected from ComboBox, its predefined credit hour is automatically shown below in a label
- If scholarship CheckBox is unchecked, then the Scholarship % is by default zero. If scholarship CheckBox is checked, then the Scholarship % Can't be zero
- Section nos can be 1 to 30 only
- **Student** class private fields: **int studentId**; **boolean hasScholarship**; **int scholarshipRate**;
- **RegisteredCourse** class private fields: **String courseId**; **int courseCredit**, **section**;
- **ArrayList<RegisteredCourse> registeredCourseList** is a private field of the controller class. A Student instance **tempStud** is also a private field of the controller class

Now, using above description, implement a NetBeans FXML project meeting following criterion:

Requirements	Marks
1) Fully implemented model class: Student Mark for declaring fields with scope & qualifier Mark for defining constructors, getters, setters, toString	5 5
1) Fully implemented model class: RegisteredCourse Mark for declaring fields with scope & qualifier Mark for defining constructors, getters, setters, toString	5 5
3) Fully designed MidExamScene.FXML file with required fx:id s and event handler methods Mark for Design Mark for specifying required fx:id s and event handler methods	10 5
4) Fully implemented MidExamSceneController class as follows:	
4.1) Appropriate initialize method	10
4.2) Clicking " Add... " button will trigger addARegisteredCourseButtonOnClick() handler method to do the following : <ul style="list-style-type: none"> It will create a new RegisteredCourse instance using user input/selection and add the instance to registeredCourseList. User can click this button and add as many courses as needed. While adding the first course (If registeredCourseList is empty), instantiate tempStud with student id, scholarship status & scholarship percentage. Make sure that if scholarship is true, then % can't be zero. 	10 5
4.3) Clicking " Proceed to Register " button will trigger proceedToRegisterAndShowRegInfoButtonOnClick() handler method to do the following : <ul style="list-style-type: none"> It will show the registration details using tempStud and registeredCourseList into regInfoTextArea, as per the format shown in the screenshot. You MUST check that the no of credits enrolled is between 6 and 18 credits. However, if the student is enjoying scholarship, then the range must be between 12 and 18 credits. 	15 10
4.4) Clicking " Show No of... " button will initiate showTotalNoOfCoursesButtonOnClick() handler method to do the following : <ul style="list-style-type: none"> It will browse the registeredCourseList to find the total no of courses of selected course-type having selected section-no, and show it in the label as shown in the screenshot 	15