SEG2105 – Deliverable 2

# Group 18

**Assumptions and Functionality (By Marking Scheme Section)**

**UML Class Diagram**

Included as pdf zip folder

**5 Unit Tests related to deliverable 1 or 2**

We had very few methods that could be effectively tested with traditional Junit tests. All tests involving databases did not work as the database would be returned null. All methods that were possible to test in the way learned in class, are tested with JUnit test cases and can be found in the “test” folder under the “src” parent folder(Class names: “EditInstructorClassDialogTest.java”, “MainActivityTest.java”, “ViewClassDialogTest.java”). After some research, some database tests were done using the Google Pixel virtual device. These are found in the “androidTest” folder under the “src” parent folder (Class names: “AdminDatabaseTest.java”, “ClassDatabaseTest.java”). We were unsure whether 5 cases meant 5 test statements or methods or classes, and as a result worked to include 5 test classes.

If there are issues with the last 2 tests, it could help to disable Window animation scale, Transition animation scale, and Animator duration scale in developer settings.

**Instructor can view all scheduled classes**

After logging in as an instructor, all scheduled classes are viewable in the ‘listview’ underneath the “Search Results” text field. This listview updates to show the results of searches, but the list of **all scheduled classes** can be viewed at any time by pressing the “VIEW ALL CLASSES” button, which sets the listview under the “Search Results” text field back to its default state, which is to show **all scheduled classes**. \*Note: be sure to close the keyboard or it might seem like the “VIEW ALL CLASSES” button does nothing, as the listview is updating underneath the keyboard UI (this issue came up in group testing)!

Full details on any scheduled class are viewable by tapping the concerned class in the listview underneath the “Search Results” text field. This can be done at any point.

**Instructor can search for a class**

Done through either Class Name OR Instructor name, not both. If the improper button is selected, no search is performed, and a message is shown to the user telling them to enter the correct field. If no class exists, the ‘Search Results’ listview defaults to showing all scheduled classes and a message is displayed detailing this. When classes of the desired name exist, or classes taught by the desired instructor exist, the listview which otherwise shows all scheduled classes, shows all search results. The instructor can then tap on a desired class to view all details. Search IS case sensitive.

**Instructor can create a class etc**

Clicking the “CREATE NEW CLASS” button launches a pop-up window which makes this task possible. As ‘type of class’, ‘hours’, and ‘difficulty level’ have reasonably few options, these choices are made using ‘Spinner’ objects, which prevents any invalid inputs. As ‘capacity’ is more variable, the wanted capacity is to be typed manually – all invalid numbers are not accepted, and a message is shown to the user with directions on the issue.

**Instructor can edit the class day, hours, difficulty level, and capacity for classes they are instructing**

**+**

**Instructor can cancel a class**

ASSUMPTION: As instructors are only able to edit classes they are instructing; it was assumed that instructors should only be able to CANCEL classes they are instructing. As a result, these sections are combined in implementation.

To view the “Edit Classes” page, click the button “EDIT/DELETE CLASSES” on the Search page. A new page is opened which contains a listview of ONLY the classes that the signed in instructor is teaching. Thus, if no classes are created by that instructor, this page will be EMPTY. To edit a class, tap on it in the listview within the “Edit Classes” page. A popup will appear, where all fields are defaulted to the classes’ current settings (i.e., If day of the week is Wednesday, the ‘Spinner’ object will be on Wednesday). To change any field, click the desired spinner, and choose the desired option. As many changes can be made as desired. To confirm changes, click the “Confirm” button, which will perform changes if edits are valid, and the listview of an instructor’s editable classes will immediately be updated. If invalid, the user will be served a message detailing the issue, and can attempt to edit again by once again tapping the desired class. Only the fields highlighted in the marking scheme are editable. Additionally, instead of editing a class when tapping on the listview, the user may choose to remove the class (cancel a class). This deletes the specified class from the database and listview as required.

**All fields are validated along with a valid error message**

This is covered in the prior two sections. ‘Spinners’ are used for most attributes and thus only valid options are available. Capacity is a textfield and has been coded to only accept numerical values greater than 0, serving the user a message detailing issues, otherwise.

**Instructor cannot schedule a class that is already scheduled by another instructor on the same day**

**+**

**Bonus: Instructor sees the name of the other instructor when prevented from schedule the same class on the same day**

IMPLEMENTATION DETAIL: Instructors are also blocked from scheduling a class that they themselves have already scheduled on the same day. It is assumed that the ‘edit’ functionality is intended for the purpose of updating classes and this prevents issues like an accidentally selected field for ‘day’ overwriting another of the instructors scheduled class for the same day. It is assumed that there is some reasoning why multiple instructors cannot have the same class on the same day, and that this reasoning extends to the same instructor not having duplicates of the same class on the same day.

Two implementations:

1. When creating a class, if a class of a certain type is scheduled on a day where a class of said type already exists, the class is not scheduled, and a message appears informing the user that the class type is already scheduled on the selected day and displays the instructors name who has scheduled the class.
2. When editing a class, if a class of a certain type has its *Day* field changed to the same as another instance of the same class, the edit is NOT ACCEPTED and again, an error message is displayed detailing the class type, day, and instructor.