Concordia University
COEN/ELEC 390
Fall 2018
Technical Assignment 4

Submission Deadline:	Monday October 15, 2018
No late submissions will be accepted.	

Objective: Design and implement an android mobile application with description given below. Using SQLite to save data and read data in an MVC structure with the use of DialogFragment.

Application Description

This video shows what your application should look like: https://youtu.be/Ky-plHrEpeg

- Two Activities: mainActivity and assignmentActivity.
    - assignmentActivity is a child Activity to mainActivity (up navigation).
- mainActivity has:
    - A TextView that displays average of all the assignments stored in the database.
    - A ListView that displays all the courses stored in the database. For every course display the course title, code and average of the assignments for that course.
    - Every item in the list is clickable. When an item is clicked, go to assignmentsActivity.
    - Floating button that opens "Insert Course DialogFragment".
- Insert Course Dialog Fragment has:
    - 2 EditTexts for course title and course code.
    - 2 buttons for save course and cancel.
    - Save button: saves the input of the edit texts as a new course in the database then returns to main activity and reloads the listview.
    - Cancel button: closes the dialog and returns to main activity.
- assignmentActivity has:
    - TextView that displays the title and code of the course being displayed (the one clicked from the listview in the previous activity).
    - ListView displaying the assignments and their grades for that course.
    - Floating button that opens "Insert Assignment DialogFragment".
- Insert Assignment DialogFragment has:
    - 2 EditTexts for assignment title and grade.
    - 2 buttons for save assignment and cancel.
    - Save button: saves the input of the edit texts as a new assignment to the course that was open. Then returns to the assignmentActivity and reloads the listview.
    - Cancel button: closes the dialog and returns to assignment activity.

Note: the app should not crash under any circumstances.

Things to help you with the assignment

Your database will have the following tables:

Course table:

- CourseID primary key
- CourseTitle
- CourseCode

Assignment table:

- AssignmentID primary key
- CourseID
- AssignmentTitle
- Grade

To select all the assignment for one course, you need to select assignments where CourseID in table "Assignment" is equal to the CourseID from "Course" table.

An example of a similar project with multiple tables and the android implementation can be found:

http://www.androidhive.info/2013/09/android-sqlite-database-with-multiple-tables/

If you have problems with SQLite, I recommend implementing the example project above and understand it well.

A good video using DialogFragment: https://www.youtube.com/watch?v=--dJm6z5b0s

Assignment submission and procedure

You have to submit your assignment before midnight on the due date using moodle Assignment Submission. The file submitted must be a **.zip** file named **StudentID_Ass4** containing your android project. **Before submitting your code make sure you clean the project.**

```
Android Studio --> Build --> Clean
```

The assignment will be graded in the tutorial demo. Every student must demo their assignment to the marker. If a student cannot bring their own laptops to demo the application and code, make sure you can run your assignment on the ENCS computer.

Uninstall the app or clear the cache before demoing the assignment.

Evaluation criteria and grading scheme

Meeting the requirements and use cases	80%
Using MVC design	15%
Clean code: well commented, proper naming, easy to read and understand.	5%

If the project submitted does not compile and run the student will receive a grade of 0! So make sure even if the assignment is not completely done that you submit an application that can be built and run. We will not grade none compiling code.

TJ