Android Development CA1 30%

# Requirements

### Application Basic Requirements

You are required to implement an Android application that will have at least the following functionality and features:

* Create, read, update and delete data in an SQLite database.
* Your application will include:
  + A variety of different data input types
  + A List View using a RecyclerView and a Detail/Edit view
  + Use Fragments for your UI
  + Navigation between them the fragments using Android Navigation components (Nav graph, NavController …)
  + Use Android’s architecture components
    - ViewModel which contains LiveData
    - At least one Entity class which represents the data that will be stored in the Database
    - Type convertors when needed
    - DAO for each Entity
    - Room Database with a table for each Entity
* **Code MUST be commented throughout. Your comments will demonstrate your understanding of your code.**

### Application Advanced Requirements

Functionality and features that are not covered in class.

Example:

* Excellent User Interface Knowledge - <https://developer.android.com/guide/topics/ui>
* Animation or Transitions <https://developer.android.com/training/animation>
* Other features such as Camera, Google Maps, notification
* Demonstration Object oriented design and development with the use of more classes with relationships between classes (eg. 1-M) not simply another CRUD for a different class.

### Report Requirement

You are required to include in your submission **a short report which describes:**

* List of functionality that works
* List of functionality that you attempted and does not work or only partially works
* List of required basic functionality that you did not attempt

Note: Any functionality you have tried must be submitted if you want it assessed, otherwise grades cannot be awarded for it . Comment it out if it contains bugs.

### Github Requirements

Comments for each commit to GitHub that demonstrate your understanding of the implementation and your knowledge of Android application components.

# Submission

Submit the short report to blackboard and include a link to your application on GitHub

NOTE: Please name the report file with your name.

### Submission Deadline

**The deadline for submission is 5:00PM Friday 15th January 2021.**

For each day that your assignment is submitted late, 5% will be deducted. Assignments submitted more than 7 days late will not be accepted. – With the exception of submissions with Doctors cert or extenuating circumstances (Must be discussed with myself).

# Assessment

You will be assessed on your knowledge of the design and development of your app.

Therefore it is very important that comments in code and notes when committing to GitHub prove your understanding of the implementation and the overall app architecture.

You will also demo your application and code at a scheduled time after submission. (Schedule will be provided at a later date).