# **Programming Assignment #4**

CIS 436 – Mobile Application Development University of Michigan - Dearborn Prof. John P. Baugh

## **Objectives**

- To put many of the topics from this course together
- To demonstrate the ability to gather requirements, design, and implement a mobile app

#### Instructions

This assignment is a little bit open-ended. In other words, you will have some flexibility. However, you must demonstrate significant knowledge of mobile development.

You must have at least the following to receive full points:

- You must use Kotlin or Java
- An appropriate layout for the project you have chosen
- Three different types of widgets
- At least two fragments
- Use of Jetpack features such as the ViewModel, LiveData, etc.
- You must also have *at least one* of the following:
  - SQLite database
  - o Navigation features using navigation graphs, hosts, destinations, etc.
  - Interaction with a Web service
- A **document** (.doc, .docx, or .pdf) containing a description of your program's use, and screen shots showing the activities and features of your program
  - You must have at least one screen shot of each activity/fragment

Part of your grade will be based on creativity, technical correctness, good programming style, comments, etc.

## **Deliverables**

- 1. To turn in the assignment, please **zip** the entire project folder (containing the Gradle files, all subfolders, etc.) and upload it to the appropriate assignment folder on Canvas.
- 2. You must also turn in a .doc, .docx, or .pdf of a description of your project and screen shots of your program in action. There must be at least one screen shot per activity. You may include the document inside the top level of your Android Studio project

### **Notes**

- You may work in a group of up to three people
- Each person must contribute
- ONE person should upload the final project, and include **all names of all group members** in the description/screen shot document