EE P 523. Mobile Applications for Sensing and Control. Summer 2021.

# **HW1: My first Android App**

The purpose of this assignment is to help you get familiar with Android application programming, and with using the Android Studio editor, as well as using widgets/views and events to produce an interactive graphical application.

#### Important note

<u>This assignment is optional, and it will not be graded.</u> It will be a good practice to get started with Android. However, you can submit the assignment in via Canvas/Github, and you will receive a feedback within a few days.

#### **Instructions**

In this assignment, you are going to apply your creativity to develop your (possibly) first Android app with Android Studio. Four different project ideas are presented. You only need to choose one.

# **Suggestions**

**Tip calculator:** Your user types in how much money they spent, and they choose a percent they would like to tip. The app outputs how much money corresponds to the tip.

**Discount calculator:** Your user types in the original price of the item, and the discount to be applied. The discount is represented as a percentage in the range 20-80%. The app outputs the two prices for the item: the original price before the discount, and the final price, after applying the discount.

**Rock-Paper-Scissors:** The user and computer each pick an option: Rock, Paper, or Scissors. The computer's choice is made randomly. The rules are the following: Paper beats Rock; Scissors beat Paper; and Rock beats Scissors. The app should keep track of the user player's score against the computer over time.

**Scrabble-mini:** The computer thinks of a word, and displays the letters on the screen on a random order (but never the correct order). The user must guess the word by putting the letters in the right order.



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### Submission

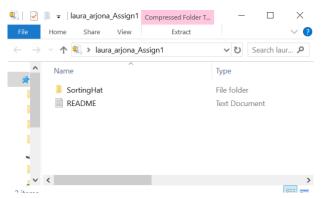
Please push your HW1 to your private repo, and create a corresponding release. Your HW1 folder in your repo must contain the following items:

- Android Studio Project folder
- README.txt file (see instructions below)

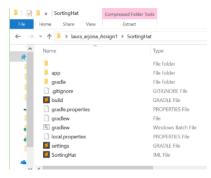
The file named README.txt should contain your name, along with the name of your app and a very brief description of it. Additionally, please include any special instructions that a user might need to know, in order to use your app properly (if there are any). For example:

# Laura Arjona <arjonal@uw.edu>

Sorting Hat - This app displays the sorting hat and a picture of the user. It returns the house where the user belongs.



Example of content of .zip archive



Example of content of Android Project "SortingHat"