COMP 319A - Mobile Device Programming – Android

Project 1 (due date April 22nd)

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Notes: The project can be done individually or as a team of 2. You may discuss the problems with other teams and post questions to the discussion forum, but the submitted work must be your own. Any material you use from external sources such as the internet should be properly cited in your report.

Description: You are expected to create a calculator application for Android OS with the intended target actually being mobile phone type of devices with tall (portrait mode) displays.

Requirements: The calculator app should be able to handle the input of numbers with or without a decimal point, the four main arithmetic operations (addition, subtraction, multiplication and division), the ability to delete the last entered digit (with the Del button) and to clear out the displayed value to zero (with the AC button). The precision of number of digits after the decimal point should be no less than

You are expected to use Android Studio IDE with Kotlin programming language and XML based layouts (and not Jetpack Compose) for your application. Feel free to choose any target API level as long as your application works as expected on the Android emulator.

Your application should consist of a single activity; feel free to use the design to the right as a visual guide, but you are free to customize the shape, position and colors of the UI as long as it handles all the aforementioned functionality and can be easily recognized as a calculator by the average user.

GitHub submissions: We will be using GitHub classroom for this assignment. You must push your work to your assigned GitHub repository. We will be checking the commits throughout the course of the project and during evaluation. Note that you still need to upload a zip file to Blackboard.

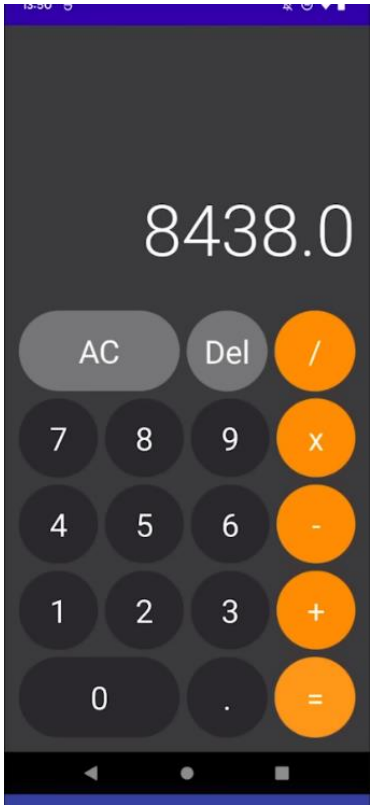

Figure 1. Example layout and visual design

Deliverables:

- You are expected to upload your complete project (except any compiled binaries that can be reproduced) as a zip file to Blackboard before the deadline.
- You must push your work to GitHub classroom in addition to Blackboard submission; the TAs and I will be checking the commits throughout the and during project evaluation. You should keep your GitHub repo updated from the start to the end of the project. Do not commit at the very end when you are finished, instead make consistent commits as you make progress; you will be penalized otherwise.
- Finally you will be required to demo the execution of your final application to one of the course TAs who will further verify its functionality.