

Lab Assignment 4: A Simple Calculator (10%)

This lab assignment is worth 10% of your total grade for this course.

Introduction

The calculator is one of the essential applications in any mobile device. In this lab assignment, you will design, develop, and test a simple calculator. You will need to apply time-management skills for this lab in order to finish your own app, test the other team's app, and report all bugs within the designated time period.

Objectives

After completing Lab Assignment 4, you will be able to:

- Write design specs for a mobile app
- Identify design challenges
- Prepare a test plan
- Build a simple calculator
- Deliver on-time

App Description:

In this lab, you will develop a Simple Calculator App. The **minimum** calculator requirements are:

- supports addition, multiplication, subtraction and division.
- a separate Equal button.
- supports a decimal point (4-digit precision) and negative sign.
- You should identify the maximum number of digits that can be displayed in the TextView for results.

A full list of the requirements is outlined in the marking rubric table below.

Assignment Submission

Instructions

1. Compress your project folder and rename the file to **calculator_lastname.zip** and upload it to Moodle

Marking Rubric

Your mark will be determined by the level of functionality you achieve for your Simple Calculator Application created in Android, as outlined in the following marking rubric table. You will also be graded on your completion of the peer evaluations.

Component	Marks	Description
Presentation/Documentations	10	Code must be clearly commented and documented. Full mark will be given for adequate commenting and professional presentation of deliverables.
Basics functionality	50	All bare basic requirements of a calculator are satisfied and basic functionality is working perfectly.
Usable calculator	20	Basic and complete calculator. In addition to above, includes: <ul style="list-style-type: none"> • Excellent design, including clear feedback on button pushes, and status of operation. Could include sound, flashing, highlighting, color, etc. • Adapts/scales reasonably to changes in device screen orientation.
User Interface quality	20	Credit will be given for the inclusion of one or more extra features, such as: <ul style="list-style-type: none"> • Flash window that shows your name and a welcome message as it starts. • Scientific calculator • Allow switch between decimal, hex, and octal, and binary. • Allow switch between normal, fixed point, and scientific notation. • "Settings" screen: can set decimals places, coloring options for negative values, etc. • Your own idea for a feature that is useful and interesting...
TOTAL	100	