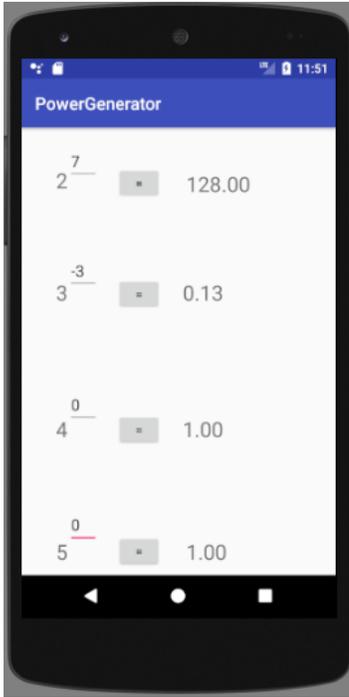


CMPS 121 – Mobile Applications
Spring 2018
Due: Wednesday April 18 @ 11:59pm

Assignment 1

For this assignment you will be creating an Android app with a single view that will calculate powers of 2, 3, 4, and 5. The layout of your view will look like the following:



As you can see, the base of each expression is a `TextView`, and the exponent is an `EditText` widget. The equals sign is a `Button` widget. The result is another `TextView`. As the user clicks each “equals” button, the value of the corresponding `TextView` to the right should change value to its base raised to the power in the `EditText` widget. So from the example above, where the power of 2 is shown, the user entered 7, clicked the “equals” button, and is given a result of 128.00.

When your app opens, the default values all of your powers should be 0 and thus the result of each should be 1.00. You’ve probably noticed that each result is a floating point value with two decimal places – your app should reflect this; all of your results should have two decimal places (don’t worry about rounding – you are allowed to truncate or round, it’s up to you). Your app should be able to calculate bases raised to powers of floating point values, as well as negative values (although bases raised to a large negative number will likely appear as 0.00).

The layout of your widgets is up to you, although I would recommend using `ConstraintLayout`, constraining widgets and `TextViews` to one another. Your layout doesn’t need to look exactly like the image above, but the layout should be intuitive with the base, power, equals sign, and result aligned for each of the expressions.

Note: For consistency you should use compile SDK version = 26, target SDK version = 26, and minimum SDK version = 16.

Submission Instructions

Each assignment should be done individually. Upload your complete Android Studio project directory in a .zip file format on Canvas.