Mobile Device Programming Assignment 1

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The goal for this assignment was to practice more on the subject taught from the first three chapters of the course so far. So far in the class, the only application built was HelloWorld in Android Studio use for Android application development. For this assignment, there were three problems that we're to solve and at the end of the assignment, there will be more function added to the HelloWorld application from the lecture and also building a TipCalculator application.

The first problem from the assignment asks to divide the input of the HelloWorld app into two different inputs. Going off from what the lecture ended with; First and last name were accepted all at once. For the problem the goal was to divide the one input into two inputs were the user is asked to enter their first and last name separately. To be able to implement this, two new palettes needed to be added to implement the functionality. A TextView and a Plain Text needed to be added. Also, to have full functionality for these two new palettes a couple of lines of code needed to be added in the MainActivity.java file. The result of the input and output that was expected and was successful is given below.

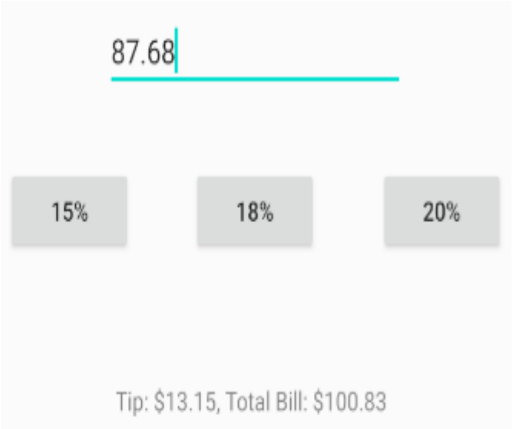
For the second problem asks us to implement a clear button. Before the clear, the application already has a display button where it displays “Hello firstname lastname!”. For this clear button, it is supposed to clear out any input from the user and revert the text display to “Hello World!”.

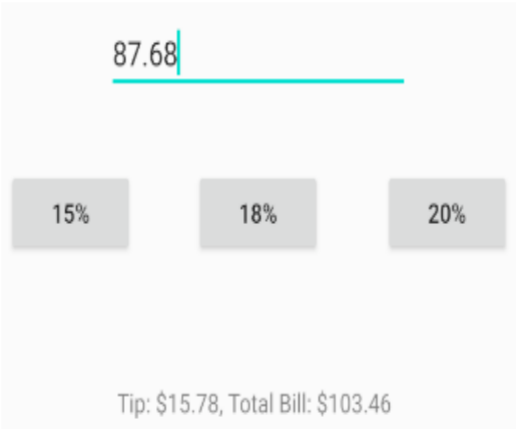
To implement this a button palette needed to be added to the app. Also having almost, the same logic of code as the display button, but the difference is that the setText for all firstname, lastname, and display text are reverted back to what they were originally before the user input. Going off from the output from the first problem becoming the input for the second problem; the result of the second problem is shown below.

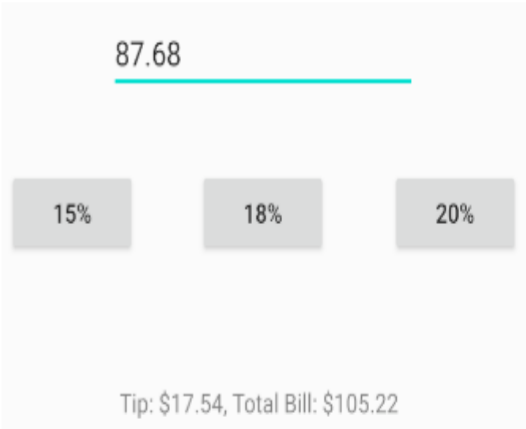
The third problem was totally different than the first two problems. The TipCalculator is to calculate the total cost of a bill including the bill amount plus the tip amount depending on how much the user would like to tip depending on the percentage. The option for tip is 15%, 18%, and 20%. The application was expected to be contracted using one EditText, three buttons,

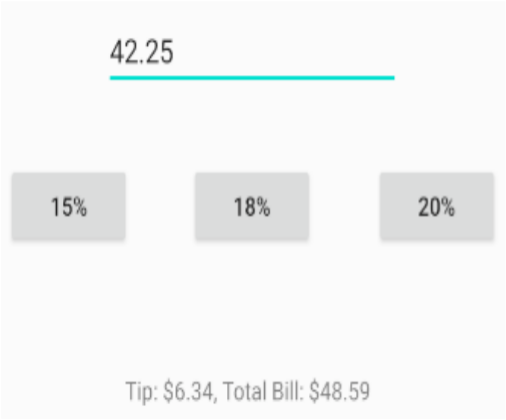
and one TextView. The EditText was for the user to enter the bill amount they have. The three buttons were for which tip percentage they would like to give. And the TextView was to show the tip amount and the total amount of the bill including the tip amount. The figure below is the output when the application is open.

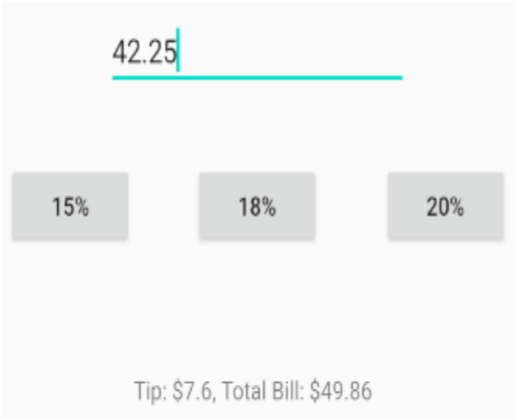
Since this application is only going to take numbers as input, the inputType for EditText needed to be replaced to numberDecimal. This allows the user to enter the amount in dollars and cents. After that, the code can be very simplified to a couple of lines of code for each button and the display text. Below is the output for each button from the bill amount being $87.68 and 42.25.

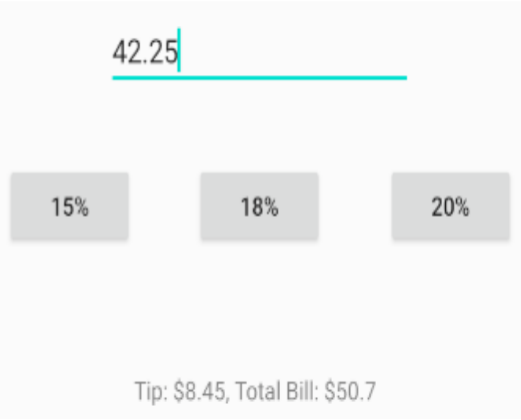












In Conclusion with this assignment; the main purpose was to get more knowledge on the fundamentals for Android Studio. The course has not taught anything about the ability to change the user screen, but it has taught us is the ability to give output to the user base on the user input from one single screen. that is what the three problems from this assignment did. beginning on having two different inputs for first and last name instead of one, also having the ability to clear whatever input was given from the user. Lastly, it helps the user calculator the amount of tip they should give and also the total amount they are going have to pay based on the tip.