

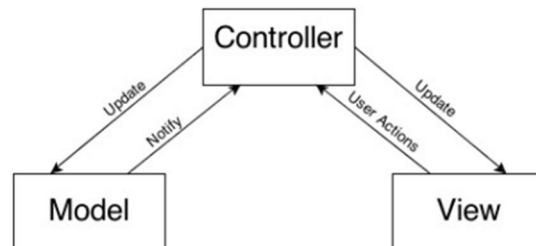
Problems Encountered:

Problems in First Activity:

- For the first Activity I used Constraints layout since we were not asked to use a certain layout for the 1st activity in the prompt.
- I had little trouble at first in changing the text views attributes like changing the colors of the text, layout background, text fonts and more.
- I also had trouble in inserting images, because transparent png images do not display properly as I found out later.
- So, I had to make the background white to match the image white background, which made my application look bad.

Problems in Second Activity:

- How to follow the mvc design pattern. I Searched the internet for android apps following mvc but it didnt help.
 - o In the end I decided on making the view be a part of the public activity class "CalculatorActivity" and create 2 class called MyModel, MyController.
 - o When a button is pressed onClick method in the "CalculatorActivity class" calls a certain method in MyController, and sometimes passing to it data.
 - o MyController then handles this data and returns a string to be displayed by the view "CalculatorActivity class".
 - o The Problem here is when the equal button is pressed the view class calls upon MyModel directly and gives it the expression it gets from MyController, which is not what happens in the diagram in our slides.



- o
- o However, I found that there are multiple variations on the MVC pattern, some allow the view to interact with the model directly.

Problems in MyController:

- I tried my best to handle illegal inputs of operators for example:
 - o An operator other than – is inserted at the beginning should be rejected
 - o If 2 operators are entered, they should replace each other, except if the second one is – or the first is %
 - o However, the logic I used to do so is confusing so there might be some errors and exceptions, but they worked at one point of time.
- Multiple decimals are allowed in one number for example 1.1.1 is allowed and would cause the app to crash when transforming the string “1.1.1” to a double
 - o An easy fix would be before changing the string to double is to make sure that there are no multiple dots and prevent the app from crashing. However, I do not have the time to do that before the deadline.
- The other methods should be working fine.

Problems in MyModel:

- The way the model calculates is it gets the final expression and following BIDMAS order it calculates a part of the expression, then it repeats until it is left with one number.
- In the function FindHighestOperator it sometimes mistakes the negative sign for a minus operator
 - o I attempted to solve that by making it ignore the first character at the beginning, and it seemed to work, however I did not have the time to test it properly.