Mobile Applications
Assignment 1

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For this assignment, we were required to create an application that takes in input for a mortgage, and calculates the expected monthly payment. The user would enter 3 values: Principal amount, Interest rate, and Mortgage term. Then after clicking the calculate button, the application would open a new page showing the result.

Intent was used in order to link the 2 fragments together. The first fragment was where input was taken, and the second fragment was where the input was sent to in order to show the result of the calculations. A calculation function was created, and upon clicking the calculate button, the intent would make the application go to the second fragment.

Views were used to create the front end of the application, providing text boxes prompting the user to enter values needed. Since 3 values were needed (principal, interest, term length), there were 3 text boxes telling the user what to enter, and 3 fields allowing them to enter a number. Upon calculation, the second fragment would have 2 text boxes, one saying this is the monthly payment, and the other showing the numerical value.

The layout for my application was done purely on the visual xml, and not coded. I simply added the textboxes and number fields where needed as well as buttons. The layout was simple, the background was all one color on both fragments, and included nothing other than what was mentioned. However the boxes needed to be constrained to other boxes as well as the edges of the screen, to prevent them from being placed in unintended locations upon launching the app.

The challenges I faced were mostly syntax and referring to material to use the correct functions such as intent, accessing the textboxes by id, and passing

variables over between fragments. One issue I had was with validation, ensuring that the app would work even if the user didn't use the app properly. If the user left any or all fields empty and pressed the calculate button, the app would crash. I attempted to create conditions so only when all the fields have values then it would proceed, however it did not work.