SOFE4640U: Mobile Application Development
Assignment #1
Basic Android Mortgage Calculator
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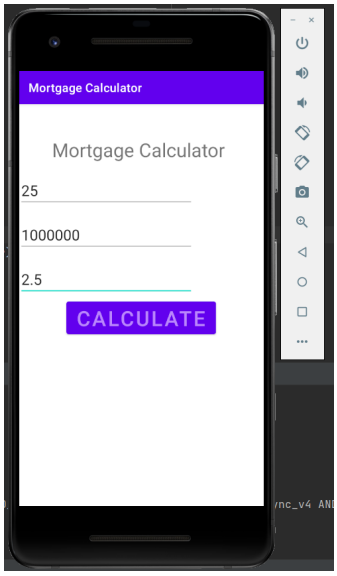

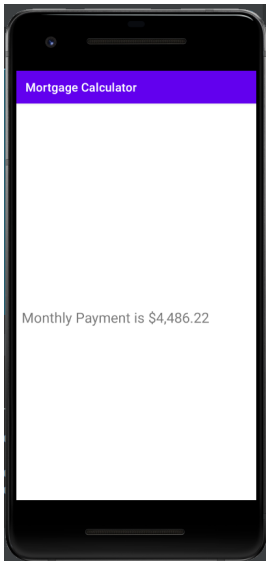

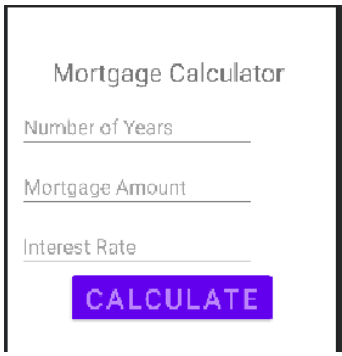

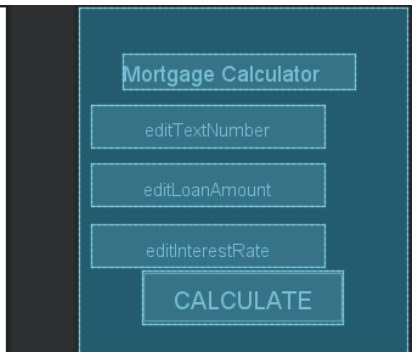

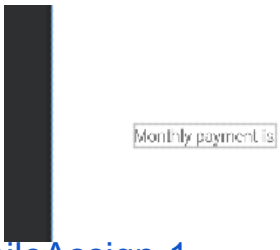

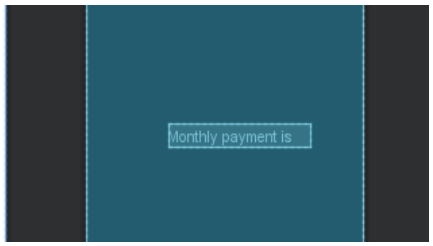

https://github.com/Sabesan2000/MobileAssign-1

Layout

For my application the layout I choose to have the header and main title of my application display “Mortgage Calculator”. The title text size is 32sp and positioned in the center and has a constraint limit of 10 from the top of the application. Below the title will be a text view where the consumer will input the Number of Years their mortgage duration. Underneath the Number of years is where the consumer will input their Mortgage amount. Underneath that is where the consumer will input their Interest Rate. All text views are size 25sp and all are equal spaced below each other by 20. The calculate button is placed in the center below the Interest Rate at 4 distance. Once the user has successfully entered all of his values and presses the Calculate button they will be directed to a different page where it would display their result which will be placed 348 from the top and 80 from the left side.

Views:

TextView

TextView was used for the Title and for the Monthly Payment total. Textview is what allows the user interface to display text to the consumer. View is the parent class of textview. Textview has many attributes, some of them are: its id which is used to uniquely identify each textview, gravity which is used to control the overall placement of the text, textColor to set the text color of the text view and many more.

EditTextView

EditTextview is a textview that the user can edit. It contains all the same attributes as any TextView and is still a subclass of View. EditTextView was used for the NumberOfYears, MortgageAmount and Interest Rate. This was editTextView because we needed the consumer to input their information so that we can calculate the mortgage based on those values.

Button

Button is what is used to calculate the mortgage monthly payments. The button function is what tells the code to execute the code given the formula. Once the button is clicked the button.setOnClickListener in the code will execute the formula and display the second page Displaypament.java where the consumer can see their monthly mortgage payment.

Intent

For the Intent part of my application I displayed the total monthly payments on a different java class.

```
Intent intent = new Intent( packageContext: MainActivity.this, DisplayPament.class);
int intNumberYwr = Integer.parseInt(editTextNumber.getText().toString());
int intLoanAmount = Integer.parseInt(editLoanAmount.getText().toString());
float decInterestRate = Float.parseFloat(editInterestRate.getText().toString());
float dectopercent = decInterestRate/1200;
float totalmonths = intNumberYwr * 12;
float decMonthlyPayment;
        decMonthlyPayment = (float) ((intLoanAmount * dectopercent * Math.pow(1 + dectopercent,to
intent.putExtra( name: "Totalvalue", decMonthlyPayment);
 startActivity(intent);
```

As shown above first the intent was initialized and than the intent.putExtra was used to carry the value of decMonthlyPayment which is the calculated monthly payment the string value associated with it is “Total Value".underneath is the startActivity(intent) which will start the intent on the new java class.

```
18    @SuppressLint("SetTextI18n")
19    @Override
20    protected void onCreate(Bundle savedInstanceState) {
21        super.onCreate(savedInstanceState);
22        setContentView(R.layout.activity_display_pament);
23
24        TextView displayAnswer = (TextView) findViewById(R.id.DisplayAnswer);
25
26        Bundle a = getIntent().getExtras();
27        if (a != null) {
28            TotalAmount = a.getFloat( key: "Totalvalue");
29        Intent intent = getIntent();
30        }
31        DecimalFormat decimalFormat = new DecimalFormat( pattern: "$###,###.##");
32        displayAnswer.setText("Monthly Payment is " + String.valueOf(decimalFormat.format(TotalAmount)));
```

Shown above is the DisplayPament class. In this class a bundle was initialized to variable a which retrieved the Intent values from the MainActivity “Total value”. Once retrieved its initialized to another variable TotalAmount and then is put in setText to the displayAnswer TextView.