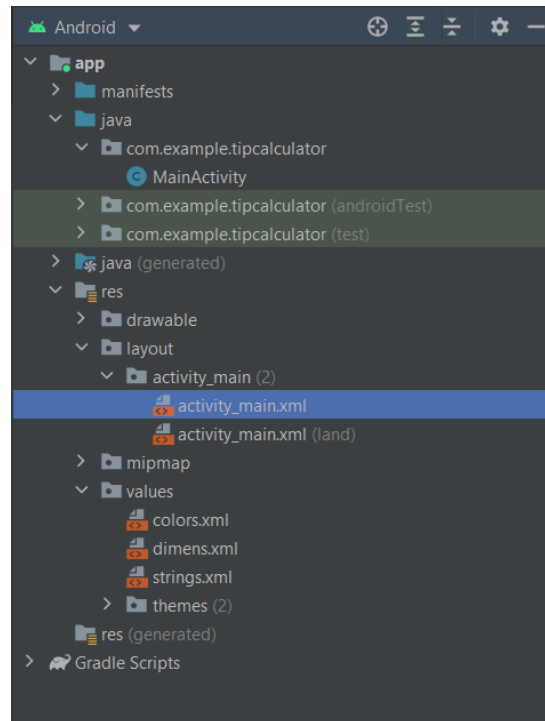**CSIS4175-050**

Name: **Nguyen Nguyen**

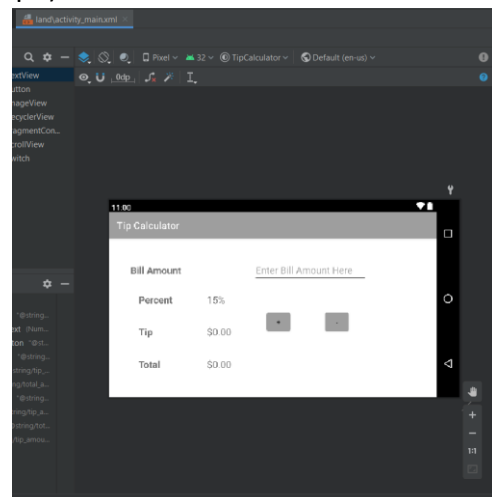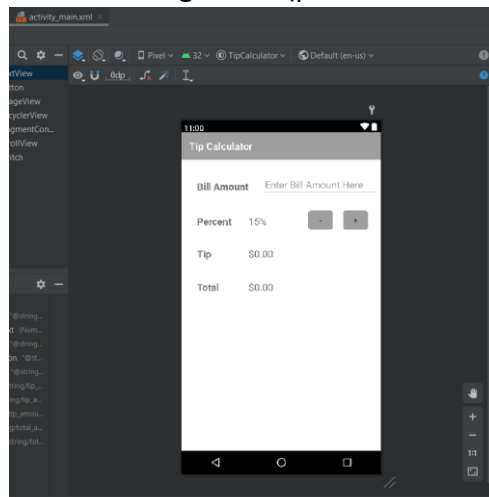**StudentID:**   **300338267**

I am confirming that I have completed this classwork assignment completely based on the requirements and it is working and fully functional

I.   CODING SCREEN CAPTURES

File's structure

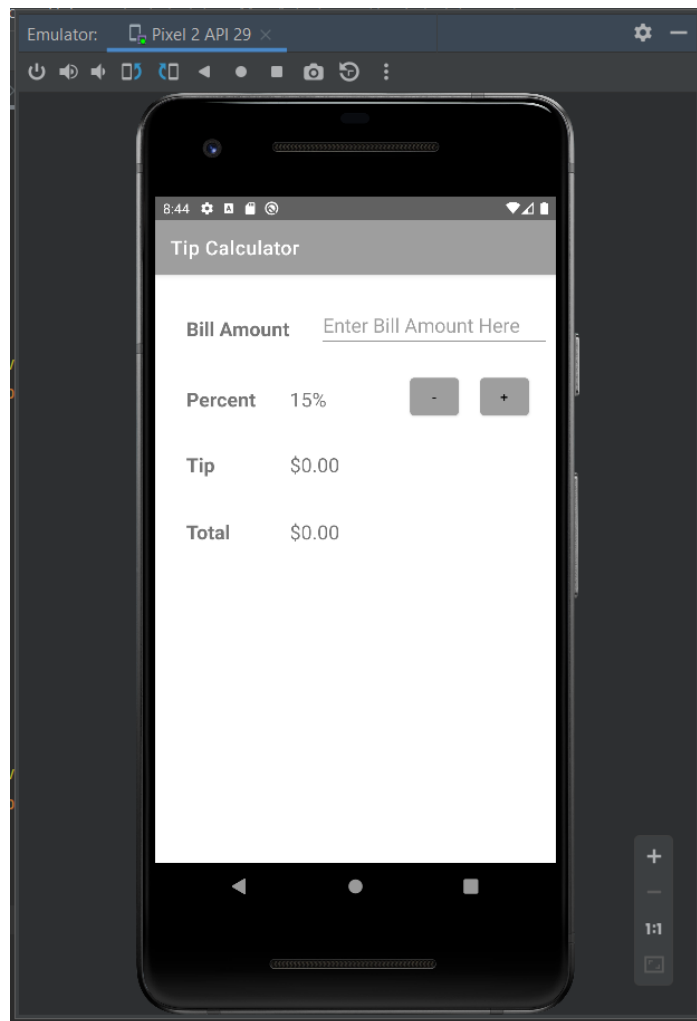2 xml files in design view (portrait + landscape)

MainActivity.java

```java
package com.example.tipcalculator;

import ...

public class MainActivity extends AppCompatActivity implements TextView.OnEditorActionListener, View.OnClickListener {

    private String billAmountString ="";
    private float tipPercent = .15f;

    //define variables for the interactive user interface controls
    private EditText billAmountEditText;
    private TextView percentTextView;
    private Button percentUpButton;
    private Button percentDownButton;
    private TextView tipTextView;
    private TextView totalTextView;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        //get references to the UI controls using findViewById
        billAmountEditText = findViewById(R.id.billAmountEditText);
        percentTextView = findViewById(R.id.percentTextView);
        percentUpButton = findViewById(R.id.percentUpButton);
        percentDownButton = findViewById(R.id.percentDownButton);
        tipTextView = findViewById(R.id.tipTextView);
        totalTextView = findViewById(R.id.totalTextView);

        //set the Listeners
        billAmountEditText.setOnEditorActionListener(this);
        percentDownButton.setOnClickListener(this);
        percentUpButton.setOnClickListener(this);
    }

    public void calculateAndDisplay(){
        //get the bill amount
        billAmountString = billAmountEditText.getText().toString();
        float billAmount;
        if (billAmountString.equals("")){
            billAmount =0;
        } else {
            billAmount = Float.parseFloat((billAmountString));
        }

        //calculate the tip & total
        float tipAmount = billAmount*tipPercent;
        float totalAmount = billAmount+tipAmount;

        //display the result with formatting
        NumberFormat currency = NumberFormat.getCurrencyInstance();
        tipTextView.setText(currency.format(tipAmount));
        totalTextView.setText(currency.format(totalAmount));

        NumberFormat percent = NumberFormat.getPercentInstance();
        percentTextView.setText(percent.format(tipPercent));
    }

    @Override
    public void onClick(View v) {
        switch (v.getId()){
            case R.id.percentDownButton:
                tipPercent = tipPercent - 0.01f;
                calculateAndDisplay();
                break;
            case R.id.percentUpButton:
                tipPercent = tipPercent + 0.01f;
                calculateAndDisplay();
                break;
        }
    }

    @Override
    public boolean onEditorAction(TextView textView, int i, KeyEvent keyEvent) {
        calculateAndDisplay();
        return false;
    }
}
```

String resource file
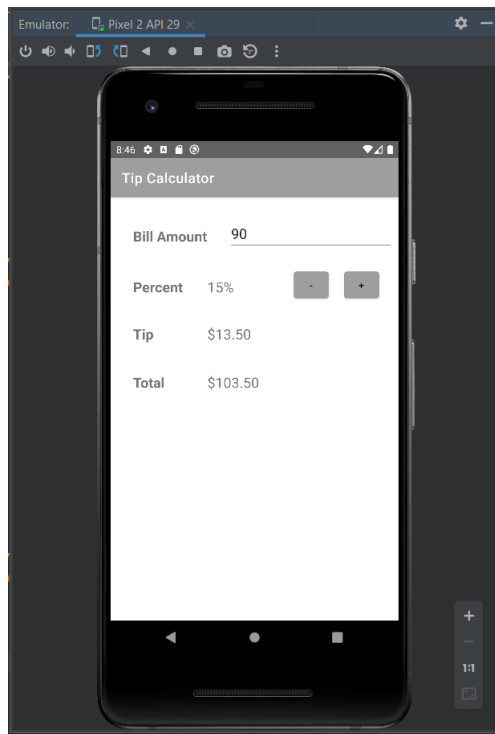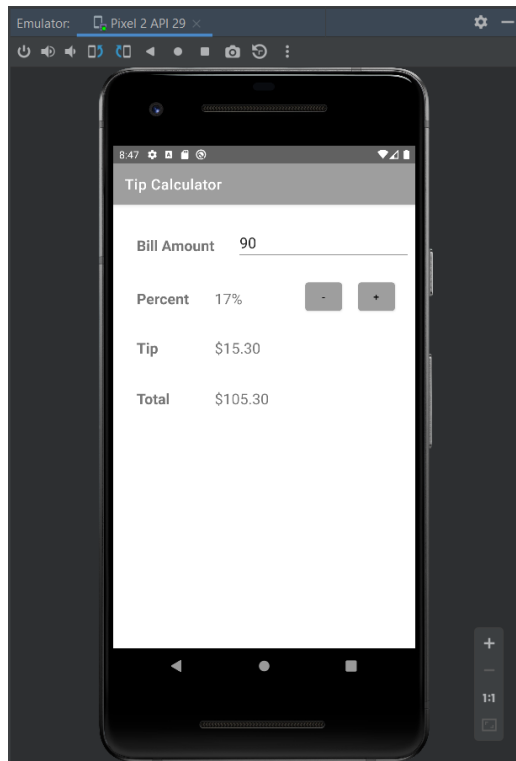

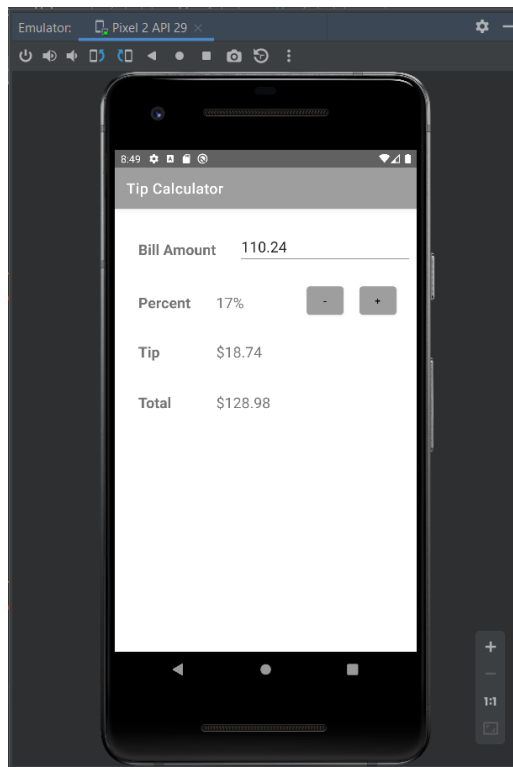## II. OUTPUT SCREEN CAPTURES

UI when app starts:
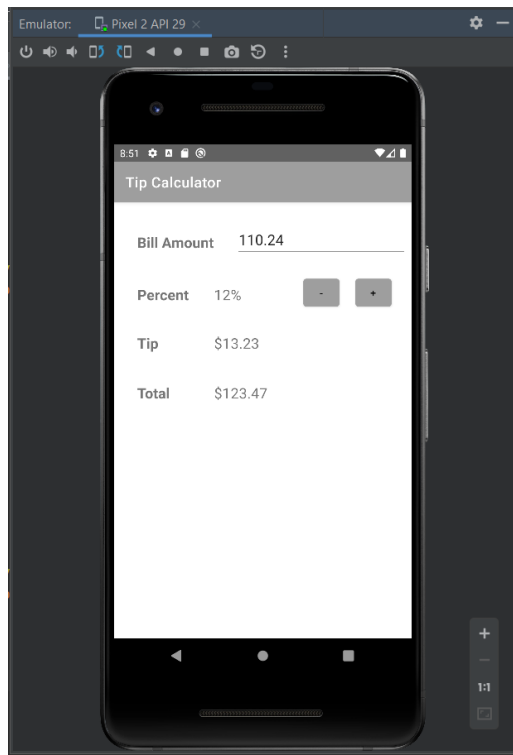
User entered bill amount 90 and hit enter

User clicked plus (+) button to 17%

User entered bill amount 110.24 and hit enter

User clicked minus (-) button to 12%

User changed orientation to landscape mode (EditText Bill Amount retained value, all other objects destroyed, app used the landscape layout)