

Tip Calculator



activity_main.xml

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools" android:layout_width="match_parent"
    android:layout_height="match_parent" android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    android:paddingBottom="@dimen/activity_vertical_margin" tools:context=".MainActivity">

    <TextView
        android:id="@+id/billAmountLabel"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/bill_amount_label"
        android:padding="10dp"
```

```
android:textSize="20sp"  
android:textStyle="bold" />
```

```
<EditText
```

```
    android:id="@+id/billAmountEditText"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_alignBaseline="@+id/billAmountLabel"  
    android:layout_toRightOf="@+id/billAmountLabel"  
    android:layout_marginLeft="5dp"  
    android:ems="8"  
    android:inputType="numberDecimal"  
    android:text="@string/bill_amount"  
    android:textSize="20sp" >  
    <requestFocus/>
```

```
</EditText>
```

```
<TextView
```

```
    android:id="@+id/percentLabel"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_alignLeft="@+id/billAmountLabel"  
    android:layout_below="@+id/billAmountLabel"  
    android:padding="10dp"  
    android:text="@string/tip_percent_label"  
    android:textSize="20sp"  
    android:textStyle="bold" />
```

```
<TextView
```

```
    android:id="@+id/percentTextView"  
    android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
android:layout_alignBaseline="@id/percentLabel"
android:layout_alignLeft="@+id/billAmountEditText"
android:padding="5dp"
android:text="@string/tip_percent"
android:textSize="20sp"
android:layout_below="@+id/billAmountEditText" />
```

<Button

```
android:id="@+id/percentDownButton"
android:layout_width="45dp"
android:layout_height="45dp"
android:layout_alignBaseline="@id/percentTextView"
android:layout_marginLeft="25dp"
android:layout_toRightOf="@+id/percentTextView"
android:text="@string/decrease"
android:textSize="20sp" />
```

<Button

```
android:id="@+id/percentUpButton"
android:layout_width="45dp"
android:layout_height="45dp"
android:layout_alignBaseline="@id/percentDownButton"
android:layout_toRightOf="@+id/percentDownButton"
android:text="@string/increase"
android:textSize="20sp" />
```

<TextView

```
android:id="@+id/tipLabel"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
```

```
android:layout_alignLeft="@+id/percentLabel"
android:layout_below="@+id/percentLabel"
android:padding="10dp"
android:text="@string/tip_amount_label"
android:textSize="20sp"
android:textStyle="bold" />
```

<TextView

```
android:id="@+id/tipTextView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignBaseline="@id/tipLabel"
android:layout_alignLeft="@id/billAmountEditText"
android:padding="5dp"
android:text="@string/tip_amount"
android:textSize="20sp" />
```

<TextView

```
android:id="@+id/totalLabel"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignLeft="@id/tipLabel"
android:layout_below="@id/tipLabel"
android:padding="10dp"
android:text="@string/total_amount_label"
android:textSize="20sp"
android:textStyle="bold" />
```

<TextView

```
android:id="@+id/totalTextView"
android:layout_width="wrap_content"
```

```
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@id/totalLabel"
        android:layout_alignLeft="@id/tipTextView"
        android:padding="5dp"
        android:text="@string/total_amount"
        android:textSize="20sp" />
</RelativeLayout>
```

TipCalculatorActivity.java

```
package com.raymundoconnor.tipcalculator;

import android.app.Activity;
import android.content.DialogInterface;
import android.widget.TextView;
import android.os.Bundle;
import android.view.KeyEvent;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.TextView.OnEditorActionListener;

import java.text.NumberFormat;

public class TipCalculatorActivity extends Activity
implements OnEditorActionListener, OnClickListener {
```

```

// defines instances variables for the widgets

private EditText billAmountEditText;

private TextView percentTextView;

private Button percentUpButton;

private Button percentDownButton;

private TextView tipTextView;

private TextView totalTextView;

// defines instance variable for tip percent

private float tipPercent = .15f;

@Override

public void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    //get references to the widgets

    billAmountEditText = (EditText)findViewById(R.id.billAmountEditText);

    percentTextView = (TextView)findViewById(R.id.percentTextView);

    percentUpButton = (Button)findViewById(R.id.percentUpButton);

    percentDownButton = (Button)findViewById(R.id.percentDownButton);

    tipTextView = (TextView)findViewById(R.id.tipTextView);

    totalTextView = (TextView)findViewById(R.id.totalTextView);

    // set the listeners

    billAmountEditText.setOnEditorActionListener(this);

    percentUpButton.setOnClickListener(this);

    percentDownButton.setOnClickListener(this);

    // calculate the tip and display results

    calculateAndDisplay();

}

private void calculateAndDisplay() {

    //get the bill amount

```

```

String billAmountString = billAmountEditText.getText().toString();

float billAmount;

if (billAmountString.equals("")){
    billAmount=0;
}
else {
    billAmount=Float.parseFloat(billAmountString);
}

//calculate tip and total

float tipAmount = billAmount * tipPercent;

float totalAmount = billAmount + tipAmount;

//display the results with formatting

NumberFormat currency = NumberFormat.getNumberInstance();

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 - .01f;
            calculateAndDisplay();
            break;
        case R.id.percentUpButton:
            tipPercent = tipPercent + .01f;
            calculateAndDisplay();
            break;
    }
}

```

```
}
```

```
@Override
```

```
public boolean onEditorAction(TextView v, int actionId, KeyEvent event) {
```

```
    calculateAndDisplay();
```

```
    return false;
```

```
}
```

```
}
```