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Lab 2

Adding Application

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**Java Code**

**package** org.example.adding;  
  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** java.text.DecimalFormat;  
  
**import** org.w3c.dom.Text;  
  
**import** java.text.DecimalFormat;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 }  
  
  
 **public void** onButtonClick(View v )  
 {  
 EditText getCost=(EditText)findViewById(R.id.***mealCost***);  
 EditText getTax=(EditText)findViewById(R.id.***taxPercent***);  
 EditText getTip=(EditText)findViewById(R.id.***tipPercent***);  
 TextView getResult=(TextView)findViewById(R.id.***result***);  
  
 **double** cost=Double.*parseDouble*(getCost.getText().toString());  
 **double** tax=0.01\*Double.*parseDouble*(getTax.getText().toString());*//get tax as double* **double** tip=0.01\*Double.*parseDouble*(getTip.getText().toString());*//get tip as double to simplify sum* DecimalFormat format=**new** DecimalFormat(**"$0.00"**);  
 **double** sum=cost+cost\*tax+cost\*tip;  
 String output=format.format(sum);  
 getResult.setText(output);  
 }  
  
}

**XML**

*<?***xml version="1.0" encoding="utf-8"***?>*<**android.support.constraint.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:app="http://schemas.android.com/apk/res-auto"  
 xmlns:tools="http://schemas.android.com/tools"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:context="org.example.adding.MainActivity"**>  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="369dp"  
 android:layout\_marginEnd="248dp"  
 android:layout\_marginStart="25dp"  
 android:text="Tax Percentage %"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="82dp"  
 android:layout\_marginEnd="251dp"  
 android:layout\_marginStart="25dp"  
 android:layout\_marginTop="74dp"  
 android:text="Tip Percentage %"  
 app:layout\_constraintBottom\_toTopOf="@+id/textView4"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView"** />  
  
 <**TextView  
 android:id="@+id/textView4"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="176dp"  
 android:layout\_marginEnd="260dp"  
 android:layout\_marginStart="25dp"  
 android:layout\_marginTop="81dp"  
 android:text="Total Meal Cost "  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView3"** />  
  
 <**TextView  
 android:id="@+id/textView5"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="65dp"  
 android:layout\_marginStart="24dp"  
 android:layout\_marginTop="40dp"  
 android:text="Meal Cost $"  
 app:layout\_constraintBottom\_toTopOf="@+id/textView"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="1.0"** />  
  
 <**EditText  
 android:id="@+id/taxPercent"  
 android:layout\_width="0dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="46dp"  
 android:layout\_marginEnd="33dp"  
 android:ems="10"  
 android:inputType="numberDecimal"  
 app:layout\_constraintBottom\_toTopOf="@+id/tipPercent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@+id/textView"** />  
  
 <**EditText  
 android:id="@+id/mealCost"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="38dp"  
 android:layout\_marginEnd="33dp"  
 android:layout\_marginStart="37dp"  
 android:layout\_marginTop="8dp"  
 android:ems="10"  
 android:inputType="numberDecimal"  
 app:layout\_constraintBottom\_toTopOf="@+id/taxPercent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.931"  
 app:layout\_constraintStart\_toEndOf="@+id/textView5"  
 app:layout\_constraintTop\_toTopOf="@+id/textView5"  
 app:layout\_constraintVertical\_bias="0.575"** />  
  
 <**EditText  
 android:id="@+id/tipPercent"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="56dp"  
 android:layout\_marginEnd="34dp"  
 android:layout\_marginStart="2dp"  
 android:ems="10"  
 android:inputType="numberSigned"  
 app:layout\_constraintBottom\_toTopOf="@+id/result"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@+id/textView3"** />  
  
 <**Button  
 android:id="@+id/button"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginBottom="65dp"  
 android:layout\_marginEnd="140dp"  
 android:layout\_marginStart="141dp"  
 android:onClick="onButtonClick"  
 android:text="Calculate"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"** />  
  
 <**TextView  
 android:id="@+id/result"  
 android:layout\_width="213dp"  
 android:layout\_height="47dp"  
 android:layout\_marginBottom="46dp"  
 android:layout\_marginEnd="35dp"  
 android:layout\_marginStart="6dp"  
 android:layout\_marginTop="10dp"  
 android:textSize="20sp"  
 app:layout\_constraintBottom\_toTopOf="@+id/button"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@+id/textView4"  
 app:layout\_constraintTop\_toTopOf="@+id/textView4"** />  
  
</**android.support.constraint.ConstraintLayout**>

**Screenshots**

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