Mainactivity.java

**package** com.example.a3button;  
  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
**import** androidx.appcompat.app.AppCompatActivity;  
**public class** MainActivity **extends** AppCompatActivity **implements** View.OnClickListener  
{  
 *// Declare UI elements* Button **buttonAdd**, **buttonDiff**, **buttonMul**, **buttonDiv**;  
 EditText **editTextN1**, **editTextN2**;  
 TextView **textView**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 *// Initialize buttons, EditTexts, and TextView* **buttonAdd** = findViewById(R.id.***btn\_add***);  
 **buttonDiff** = findViewById(R.id.***btn\_diff***);  
 **buttonMul** = findViewById(R.id.***btn\_mul***);  
 **buttonDiv** = findViewById(R.id.***btn\_div***);  
 **editTextN1** = findViewById(R.id.***number1***);  
 **editTextN2** = findViewById(R.id.***number2***);  
 **textView** = findViewById(R.id.***answer***);  
 **buttonAdd**.setOnClickListener(**this**);  
 **buttonDiff**.setOnClickListener(**this**);  
 **buttonMul**.setOnClickListener(**this**);  
 **buttonDiv**.setOnClickListener(**this**);  
 }  
 **public int** GetIntFromEditText(EditText editText) {  
 **if** (editText.getText().toString().equals(**""**)) {  
 Toast.*makeText*(getApplicationContext(), **"Enter Number.."**,  
 Toast.***LENGTH\_SHORT***).show();  
 **return** 0;  
 } **else** {  
 **return** Integer.*parseInt*(editText.getText().toString());  
 }  
 }  
  
 @Override  
 **public void** onClick(View view) {  
 **int** num1 = GetIntFromEditText(**editTextN1**);  
 **int** num2 = GetIntFromEditText(**editTextN2**);  
 **switch** (view.getId()) {  
 **case** R.id.***btn\_add***:  
 **textView**.setText(**"Answer="** + (num1 + num2));  
 **break**;  
 **case** R.id.***btn\_diff***:  
 **textView**.setText(**"Answer="** + (num1 - num2));  
 **break**;  
 **case** R.id.***btn\_mul***:  
 **textView**.setText(**"Answer="** + (num1 \* num2));  
 **break**;  
 **case** R.id.***btn\_div***:  
 **if** (num2 != 0) {  
 **textView**.setText(**"Answer="** + ((**float**) num1 / (**float**) num2));  
 } **else** {  
 Toast.*makeText*(getApplicationContext(), **"Cannot divide by zero"**,  
 Toast.***LENGTH\_SHORT***).show();  
 }  
 **break**;  
 }  
 }  
}

activity.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**LinearLayout  
 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:id="@+id/main"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:orientation="vertical"  
 android:padding="30dp"  
 android:layout\_gravity="center"  
 tools:context=".MainActivity"**>  
  
 *<!-- Title Text -->* <**TextView  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Simple Calculator"  
 android:textSize="30dp"  
 android:textStyle="bold"  
 android:inputType="number"** />  
  
 *<!-- First Number Input -->* <**EditText  
 android:id="@+id/number1"  
 android:hint="Enter first number"  
 android:textSize="30dp"  
 android:textStyle="bold"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"** />  
  
 *<!-- Second Number Input -->* <**EditText  
 android:id="@+id/number2"  
 android:hint="Enter second number"  
 android:textSize="30dp"  
 android:textStyle="bold"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"** />  
  
 *<!-- Buttons for Operations -->* <**LinearLayout  
 android:orientation="horizontal"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"**>  
  
 <**Button  
 android:id="@+id/btn\_add"  
 android:text="+"  
 android:textSize="30dp"  
 android:padding="5dp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"** />  
  
 <**Button  
 android:id="@+id/btn\_diff"  
 android:text="-"  
 android:textSize="30dp"  
 android:padding="5dp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"** />  
  
 <**Button  
 android:id="@+id/btn\_mul"  
 android:text="\*"  
 android:textSize="30dp"  
 android:padding="5dp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"** />  
  
 <**Button  
 android:id="@+id/btn\_div"  
 android:text="/"  
 android:textSize="30dp"  
 android:padding="5dp"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"** />  
 </**LinearLayout**>  
  
 *<!-- Display Result -->* <**TextView  
 android:id="@+id/answer"  
 android:layout\_marginTop="30dp"  
 android:textSize="30dp"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"** />  
</**LinearLayout**>

Dependency

dependencies {  
 *// AndroidX dependencies* implementation **'androidx.appcompat:appcompat:1.4.1'** implementation **'com.google.android.material:material:1.5.0'** implementation **'androidx.constraintlayout:constraintlayout:2.1.3'** implementation **'com.google.android.material:material:1.9.0'** *// Unit test dependencies* testImplementation **'junit:junit:4.13.2'** *// Android Instrumentation test dependencies* androidTestImplementation **'androidx.test.ext:junit:1.1.3'** androidTestImplementation **'androidx.test.espresso:espresso-core:3.4.0'  
}**