



Activity main.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout
```

```
xmlns:android="http://schemas.android.com/apk/res/android"
```

```
android:orientation="vertical"
```

```
android:layout_width="fill_parent"
```

```
android:layout_height="fill_parent">
```

```
    <LinearLayout
```

```
        android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
```

```
        android:id="@+id/linearLayout1"
```

```
        android:layout_marginLeft="10pt"
```

```
        android:layout_marginRight="10pt"
```

```
        android:layout_marginTop="3pt">
```

```
            <EditText
```

```
                android:id="@+id/etNum1"
```

```
                android:layout_width="match_parent"
```

```
                android:layout_height="wrap_content"
```

```
                android:layout_gravity="end"
```

```
                android:gravity="end"
```

```
                android:textAlignment="gravity"
```

```
                android:layout_marginEnd="5pt"
```

```
                android:layout_weight="1"
```

```
                android:inputType="numberDecimal" />
```

```
            <EditText
```

```
                android:id="@+id/etNum2"
```

```
                android:layout_width="match_parent"
```

```
                android:layout_height="wrap_content"
```

```
                android:layout_gravity="end"
```

```
                android:gravity="end"
```

```
                android:textAlignment="gravity"
```

```
                android:layout_marginStart="5pt"
```

```
        android:layout_weight="1"
        android:inputType="numberDecimal"/>
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:id="@+id/linearLayout2"
    android:layout_marginTop="3pt"
    android:layout_marginLeft="5pt"
    android:layout_marginRight="5pt">
```

```
    <Button
        android:layout_height="wrap_content"
        android:layout_width="match_parent"
        android:layout_weight="1"
        android:text="+"
        android:textSize="8pt"
        android:id="@+id/btnAdd"/>
```

```
    <Button
        android:layout_height="wrap_content"
        android:layout_width="match_parent"
        android:layout_weight="1"
        android:text="-"
        android:textSize="8pt"
        android:id="@+id/btnSub"/>
```

```
    <Button
        android:layout_height="wrap_content"
        android:layout_width="match_parent"
        android:layout_weight="1"
        android:text="*"
        android:textSize="8pt"
```

```
android:id="@+id/btnMul"/>
```

```
<Button
```

```
android:layout_height="wrap_content"
```

```
android:layout_width="match_parent"
```

```
android:layout_weight="1"
```

```
android:text="/"
```

```
android:textSize="8pt"
```

```
android:id="@+id/btnDiv"/>
```

```
</LinearLayout>
```

```
<TextView
```

```
android:layout_height="wrap_content"
```

```
android:layout_width="match_parent"
```

```
android:layout_marginLeft="5pt"
```

```
android:layout_marginRight="5pt"
```

```
android:textSize="12pt"
```

```
android:layout_marginTop="3pt"
```

```
android:id="@+id/tvResult"
```

```
android:gravity="center_horizontal"/>
```

```
<LinearLayout
```

```
android:layout_width="match_parent"
```

```
android:layout_height="wrap_content"
```

```
android:id="@+id/linearLayout3"
```

```
android:layout_marginTop="3pt"
```

```
android:layout_marginLeft="5pt"
```

```
android:layout_marginRight="5pt"
```

```
android:orientation="vertical"
```

```
android:layout_gravity="center_vertical"
```

```
android:gravity="center">
```

```

        <Button
            android:id="@+id/clear"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/clear"
            android:textSize="8pt"
            android:onClick="ClearText" />

```

```

    </LinearLayout>

```

```

</LinearLayout>

```

Strings.xml

```

<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">Simple Calculator</string>
    <string name="hello_world">Hello world!</string>
    <string name="action_settings">Settings</string>
    <string name="clear">C l e a r</string>
    <string name="btnAdd">+</string>
    <string name="btnSub">-</string>
    <string name="btnMul">*</string>
    <string name="btnDiv">/</string>
</resources>

```

MainActivity.java

```

package in.jacsice.android.simplecalculator;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.view.Gravity;
import android.view.Menu;
import android.view.MenuItem;
import android.text.TextUtils;
import android.view.View;
import android.view.View.OnClickListener;

```

```
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
```

```
public class MainActivity extends Activity implements OnClickListener {
```

```
    EditText etNum1;
```

```
    EditText etNum2;
```

```
    Button btnAdd;
```

```
    Button btnSub;
```

```
    Button btnMul;
```

```
    Button btnDiv;
```

```
    TextView tvResult;
```

```
    String oper = "";
```

```
    Toast msg;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

```
    // find the elements
```

```
    etNum1 = (EditText) findViewById(R.id.etNum1);
```

```
    etNum2 = (EditText) findViewById(R.id.etNum2);
```

```
    btnAdd = (Button) findViewById(R.id.btnAdd);
```

```
    btnSub = (Button) findViewById(R.id.btnSub);
```

```
    btnMul = (Button) findViewById(R.id.btnMul);
```

```
    btnDiv = (Button) findViewById(R.id.btnDiv);
```

```
tvResult = (TextView) findViewById(R.id.tvResult);
```

```
// set a listener
```

```
btnAdd.setOnClickListener((OnClickListener) this);
```

```
btnSub.setOnClickListener(this);
```

```
btnMul.setOnClickListener(this);
```

```
btnDiv.setOnClickListener(this);
```

```
}
```

```
@Override
```

```
public void onClick(View v) {
```

```
    // TODO Auto-generated method stub
```

```
    float num1 = 0;
```

```
    float num2 = 0;
```

```
    float result = 0;
```

```
    // check if the fields are empty
```

```
    // if (TextUtils.isEmpty(etNum1.getText().toString()) ||
```

```
    TextUtils.isEmpty(etNum2.getText().toString()))
```

```
    // {return;}
```

```
    //String n = "N1:"+etNum1.getText().toString() +"\n N2:"+ etNum2.getText().toString();
```

```
    //Toast.makeText(MainActivity.this, n, Toast.LENGTH_LONG).show();
```

```
    if(etNum1.getText().toString().equals("") || etNum1.getText().toString().equals(null))
```

```
{
```

```
    msg = Toast.makeText(MainActivity.this, "Number1 is empty!", Toast.LENGTH_SHORT);
```

```
    msg.setGravity(Gravity.CENTER|Gravity.CENTER_HORIZONTAL, 0, -100);
```

```
        msg.show();
```

```
    etNum1.setFocusable(true);
```

```
    etNum1.setCursorVisible(true);
```

```
    etNum1.requestFocus();
```

```
    return;
```

```
}
```

```
if(etNum2.getText().toString().equals("") || etNum2.getText().toString().equals(null))  
{  
    msg = Toast.makeText(MainActivity.this, "Number2 is empty!", Toast.LENGTH_SHORT);  
    msg.setGravity(Gravity.CENTER|Gravity.CENTER_HORIZONTAL, 0, -200);  
    msg.show();  
    etNum2.setFocusable(true);  
    etNum2.setCursorVisible(true);  
    etNum2.requestFocus();  
    return;  
}
```

```
// read EditText and fill variables with numbers
```

```
num1 = Float.parseFloat(etNum1.getText().toString());
```

```
num2 = Float.parseFloat(etNum2.getText().toString());
```

```
// defines the button that has been clicked and performs the corresponding operation
```

```
// write operation into oper, we will use it later for output
```

```
switch (v.getId()) {
```

```
case R.id.btnAdd:
```

```
    oper = "+";
```

```
    result = num1 + num2;
```

```
    break;
```

```
case R.id.btnSub:
```

```
    oper = "-";
```

```
    result = num1 - num2;
```

```
    break;
```

```
case R.id.btnMul:
```

```
    oper = "*";
```

```
    result = num1 * num2;
```

```
    break;
```

```
case R.id.btnDiv:
```

```
    oper = "/";
```

```
    result = num1 / num2;
```



```

        break;
    default:
        break;
    }
    tvResult.setText(num1 + " " + oper + " " + num2 + " = " + result);
}

public void ClearText(View v){
    etNum1.setText("");
    etNum2.setText("");
    tvResult.setText("");
    etNum1.requestFocus();
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // Handle action bar item clicks here. The action bar will
    // automatically handle clicks on the Home/Up button, so long
    // as you specify a parent activity in AndroidManifest.xml.
    int id = item.getItemId();
    if (id == R.id.action_settings) {
        return true;
    }
    return super.onOptionsItemSelected(item);
}
}

```