My First App
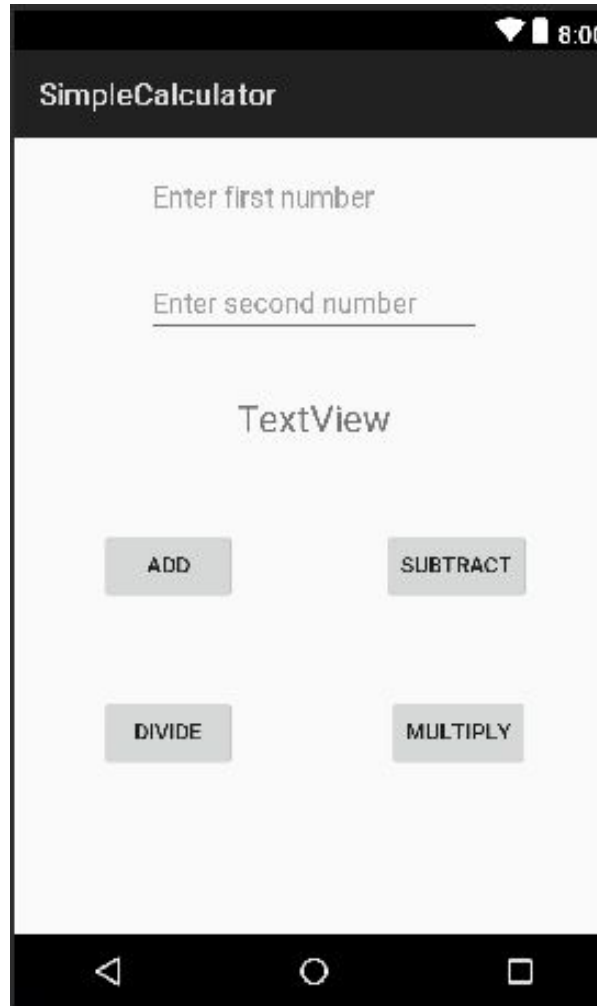
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Content

- Design – XML
- Click Events
- Coding - JAVA
- Run on Emulator/Device

Design the App as given below

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Coding in Java File

The following is what we get by default

```
package com.example.falcon.myapplication;

import android.os.Bundle;
import android.app.Activity;
import android.view.View;

public class SimpleCalculator extends Activity {

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

In java file make reference of the views, that you have used in your Layout, as shown below:

public class SimpleCalculator extends Activity {

```java
    private EditText edtNumOne;
    private EditText edtNumTWO;
    private TextView tvResult;

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

        edtNumOne = findViewById(R.id.edtNumOne);
        edtNumTWO = findViewById(R.id.edtNumTwo);
        tvResult = findViewById(R.id.tvResult);
    }
}
```

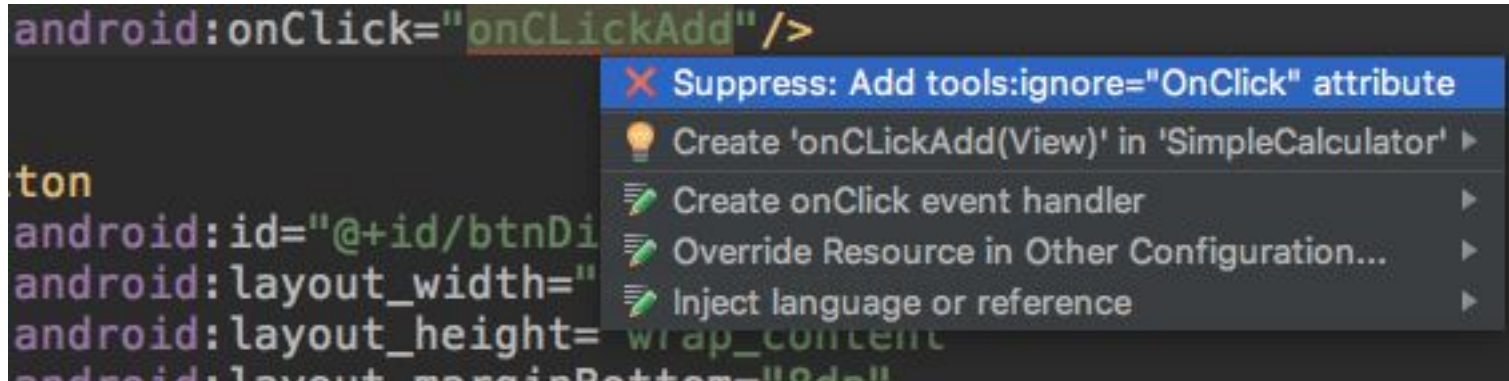# Adding method to handle click event

Types of adding method:

- There are ways of adding methods:

1. From XML

2. From Java code

1. Add the Click Event for button from XML:

- In your XML file add the following line:
    - android:onClick="onCLickAdd"
- Now press alt+<method name>

- It gives the above menu, select
    - Create 'onClickAdd(View)' in 'SimpleCalculator'
- It creates a method in java file

Output:

```java
public class SimpleCalculator extends Activity {

    private EditText edtNumOne;
    private EditText edtNumTWO;
    private TextView tvResult;

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

        edtNumOne = findViewById(R.id.edtNumOne);
        edtNumTWO = findViewById(R.id.edtNumTwo);
        tvResult = findViewById(R.id.tvResult);
    }

    public void onCLickAdd(View view) {

    }
}
```

Write the following code:

- Add the highlighted line in the method:
    - public void onCLickAdd(View view) {

        numOne = Integer.*parseInt*(edtNumOne.getText().toString());
        numTwo = Integer.*parseInt*(edtNumTWO.getText().toString());

        tvResult.setText(numOne+numTwo);
    }

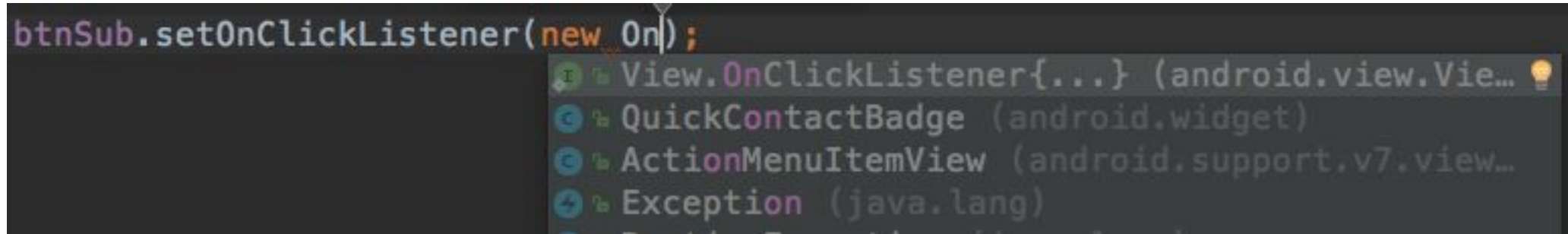- This code will add two numbers given by user and show the addition of both in the TextView.

2. Add the Click Event for button from Java code:

- First make the reference of Button in Java file:
  - private Button btnSub;

- Now link it to the button from the XML file:
  - btnSub = findViewById(R.id.*btnSub*); //in onCreate()

- Add the following code within onCreate method:

- Select setOnClickListener(OnClickListener l) and hit enter.

- Start typing new OnClickListener in argument part of the method, it would give the following options, select View.OnClickListener{...} and hit enter:


```
btnSub.setOnClickListener(new On);

        View.OnClickListener{...} (android.view.Vie...)
        QuickContactBadge (android.widget)
        ActionMenuItemView (android.support.v7.view...
        Exception (java.lang)
```

- Following code will be auto generated (please do not type the following code):

    - btnSub.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {

        }
    });

- Add the highlighted code as shown below:
  - btnSub.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        tvResult.setText(numOne - numTwo);
    }
    });

- Similarly, you can add other methods for Division and Multiplication, as per the technique of your choice.

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