

Slide 8.16: Java source code: MainActivity.java (cont.)

Slide 8.18: Java source code: MainActivity.java (cont.)

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Java Source Code (Cont.)

Line 15: `public void OnCreate(Bundle savedInstanceState)`

It is called by the Android system when your activity starts. You will usually call the following two methods from this method:

- `setContentView(int)`, which is with a layout resource defining your UI, and
- `findViewById(int)`, which is to retrieve the widgets in that UI that you need to interact with programmatically.

Line 15: `public void OnCreate(Bundle savedInstanceState)`

“`Bundle savedInstanceState`” is a way of passing data between activities and storing data between instantiations of the same activity. We will not need to use this for HelloWorld.

Line 16: `super.onCreate(savedInstanceState)`

It is information you want returned to your application, via `onCreate()`, if the activity is destroyed and restarted due to some implicit reason (e.g., not because the user pressed the back button).

The reason to call `super.onCreate()` is because your code will not compile otherwise.

Line 16: `super.onCreate(savedInstanceState);`

The `super` keyword refers to the instance of the parent class of the current object. It is used when you overwrite a method in a subclass but still want to call the method defined in the parent class.

Line 17: `setContentView(R.layout.activity_main);`

It sets the activity content to an explicit view. Android uses layouts to define screen layouts on the target, and that `activity_main` was the name of the default layout file that the Android SDK created for us under the `res/layout` directory.

HelloWorld/app/src/main/java/com/example/wenchen/helloworld/MainActivity.java

```
01 package com.example.wenchen.helloworld;
02
03 import android.app.Activity;
04 import android.content.Intent;
05 import android.os.Bundle;
06 import android.view.View;
07 import android.widget.Button;
08 import android.widget.EditText;
09 import android.support.v7.app.AppCompatActivity;
10 import android.view.Menu;
11 import android.view.MenuItem;
12
13 public class MainActivity extends AppCompatActivity {
14     @Override
15     protected void onCreate( Bundle savedInstanceState ) {
16         super.onCreate( savedInstanceState );
17         setContentView( R.layout.activity_main );
18         final EditText name = (EditText) findViewById( R.id.name );
19         final Button button = (Button) findViewById( R.id.next );
20         button.setOnClickListener(
21             new View.OnClickListener() {
22                 public void onClick( View v ) {
23                     /** Here i calls a new screen. */
24                     Intent i = new Intent( MainActivity.this, NextActivity.class );
25                     i.putExtra( "name", name.getText().toString() );
26                     startActivity( i );
27                 }
28             }
29         );
30     }
31
32     @Override
33     public boolean onCreateOptionsMenu( Menu menu ) {
34         // Inflate the menu; this adds items to the action bar if it is present.
35         getMenuInflater().inflate( R.menu.menu_main, menu );
36         return true;
37     }
38
39     @Override
40     public boolean onOptionsItemSelected( MenuItem item ) {
41         // Handle action bar item clicks here. The action bar will
42         // automatically handle clicks on the Home/Up button, so long
43         // as you specify a parent activity in AndroidManifest.xml.
```

```
44     int id = item.getItemId( );
45
46     // noinspection SimplifiableIfStatement
47     if ( id == R.id.action_settings ) {
48         return true;
49     }
50     else if ( id == R.id.next ) {
51         Intent i = new Intent( MainActivity.this, NextActivity.class );
52         startActivity( i );
53     }
54     return super.onOptionsItemSelected( item );
55 }
56 }
```

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