Slide 8.14: Java source code
Slide 8.16: Java source code: MainActivity.java (cont.)
Home



# **Java Source Code (Cont.)**

## Line 01: package com.example.wenchen.helloworld;

The package reference is com.example.wenchen.helloworld.

## Line 03: import android.app.Activity;

An activity is a single application entity that is used to perform actions. An application may have many separate activities, but the user interacts with them one at a time. Almost all activities interact with the user, so the Activity class takes care of creating a window for you in which you can place your UI with <a href="mailto:setContentView(View)">setContentView(View)</a>.

## Line 04: import android.content.Intent;

An intent is an abstract description of an operation to be performed. It can be used with <u>startActivity</u> to launch an <u>Activity</u>. Its most significant use is in the launching of activities, where it can be thought of as the glue between activities.

## Line 05: import android.os.Bundle;

It is a mapping from <u>String</u> values to various <u>Parcelable</u> types. Android use <u>Parcel</u>, which is a container for a message (data and object references), to pass data through services.

## Line 06: import android.view.View;

This class represents the basic building block for user interface components. A View occupies a rectangular area on the screen and is responsible for drawing and event handling. View is the base class for widgets, which are used to create interactive UI components (buttons, text fields, etc.).

#### Line 07: import android.widget.Button;

It represents a push-button widget. Push-buttons can be pressed, or clicked, by the user to perform an action.

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

```
package com.example.wenchen.helloworld;
02
03
   import android.app.Activity;
04 import android.content.Intent;
    import android.os.Bundle;
   import android.view.View;
07
   import android.widget.Button;
   import android.widget.EditText;
   import android.support.v7.app.AppCompatActivity;
    import android.view.Menu;
   import android.view.MenuItem;
11
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 );
        final EditText name = (EditText) findViewById( R.id.name );
18
        final Button button = (Button)
19
                                        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
      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
        // noinspection SimplifiableIfStatement
46
47
        if ( id == R.id.action_settings ) {
48
          return true;
49
        else if ( id == R.id.next ) {
50
          Intent i = new Intent( MainActivity.this, NextActivity.class );
51
52
          startActivity( i );
53
54
        return super.onOptionsItemSelected( item );
55
56 }
```

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Slide 8.14: Java source code

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

Home

