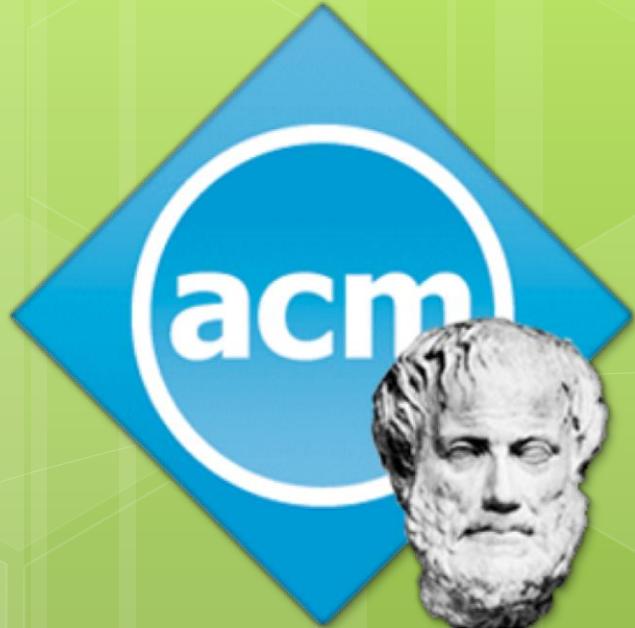


**ACM Student Chapter AUTH**



# Hello Android!

## Hands-on Seminar

26/11/2012

---

**Πίσκας Γεώργιος**  
Προπτυχιακός Φοιτητής  
Τμήμα Πληροφορικής Α.Π.Θ.  
ACM Student Chapter AUTH Member

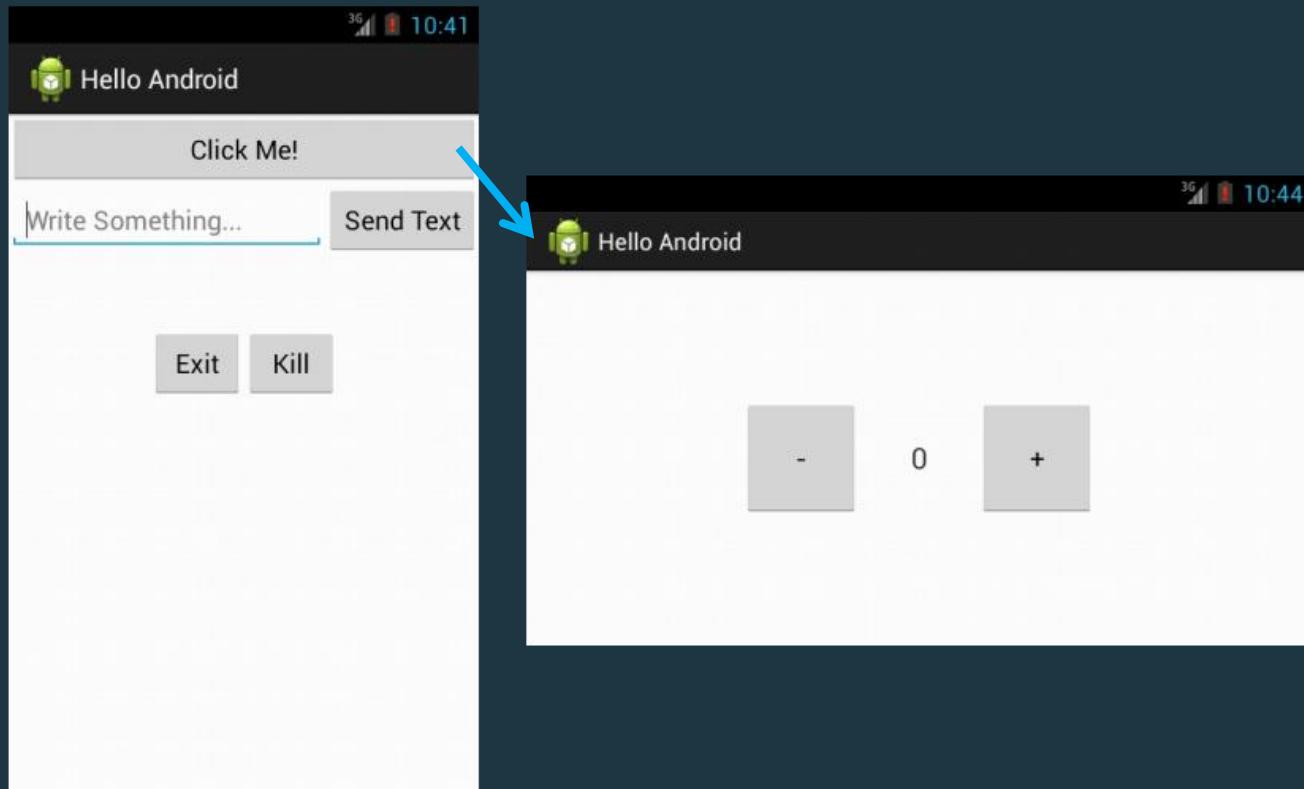
---

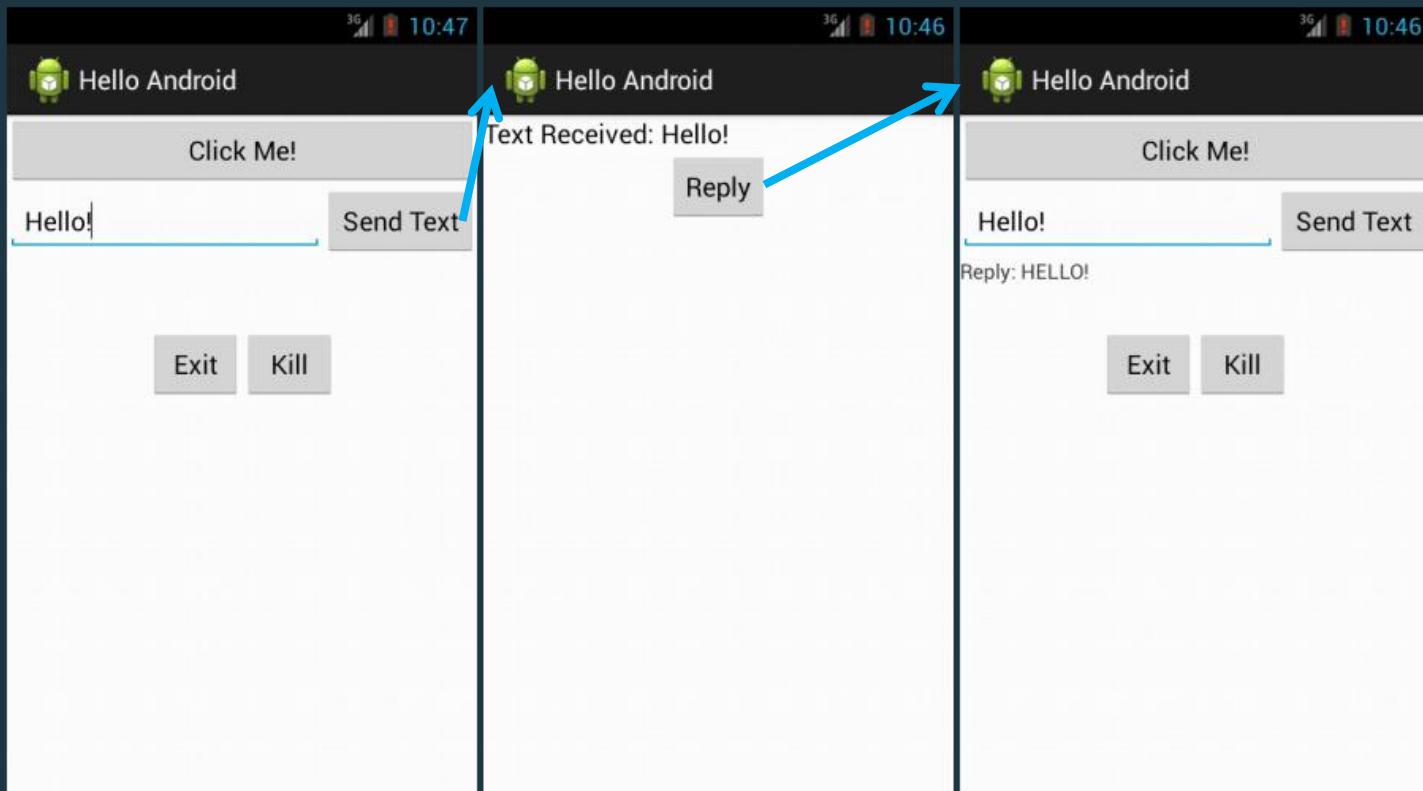
# Πηγαίος Κώδικας

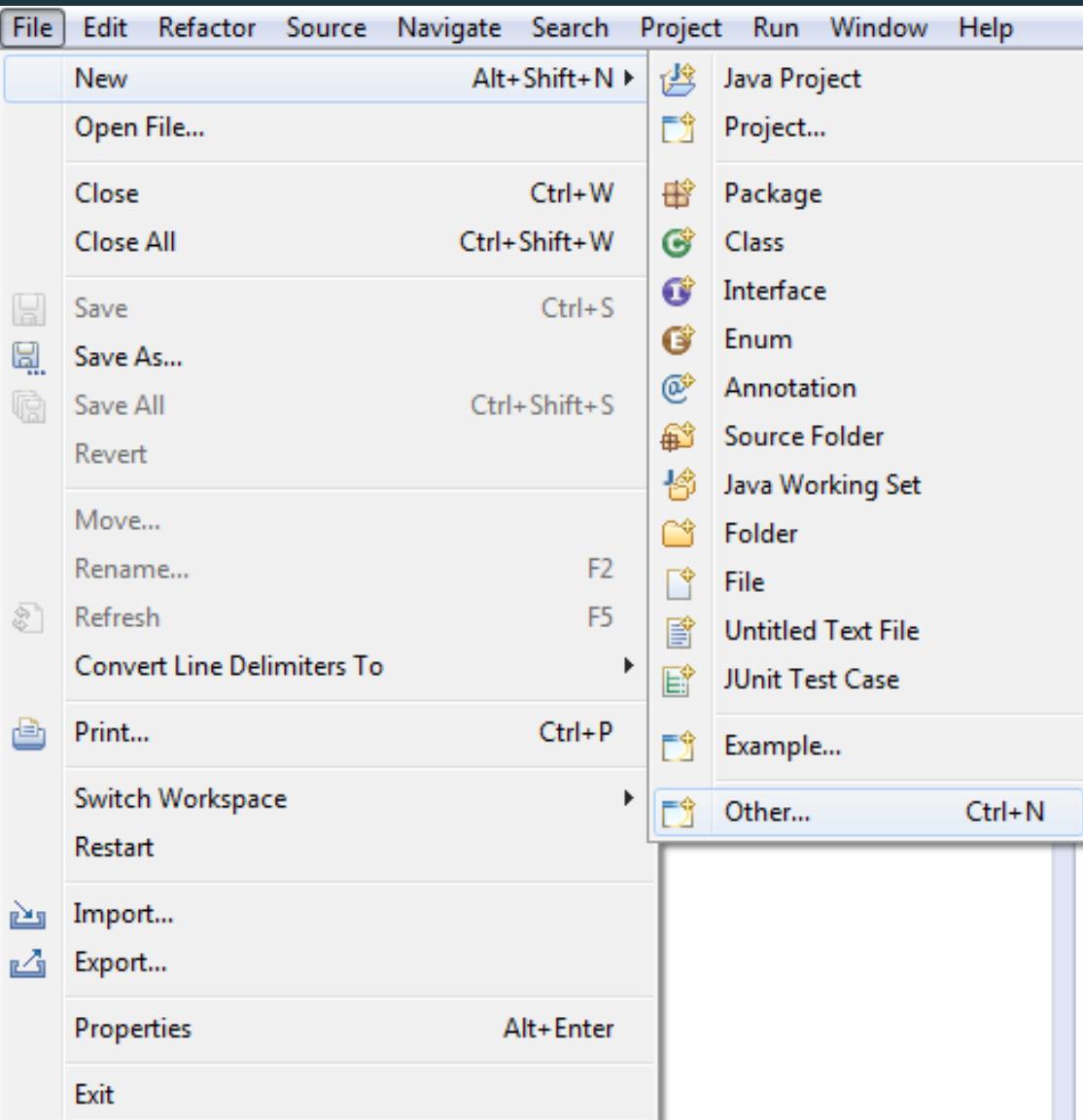
- ◎ <http://bit.ly/TdSj3H>
- ◎ Θα μας χρειαστεί για να μήν γράφουμε μερικά κομμάτια Java, τα οποία δέν έχουν σχέση με Android Development.
- ◎ Σε περίπτωση που κολλήσετε.
- ◎ Περιέχει όλο το eclipse project έτοιμο για import.
- ◎ Περιέχει και τον πηγαίο κώδικα standalone.

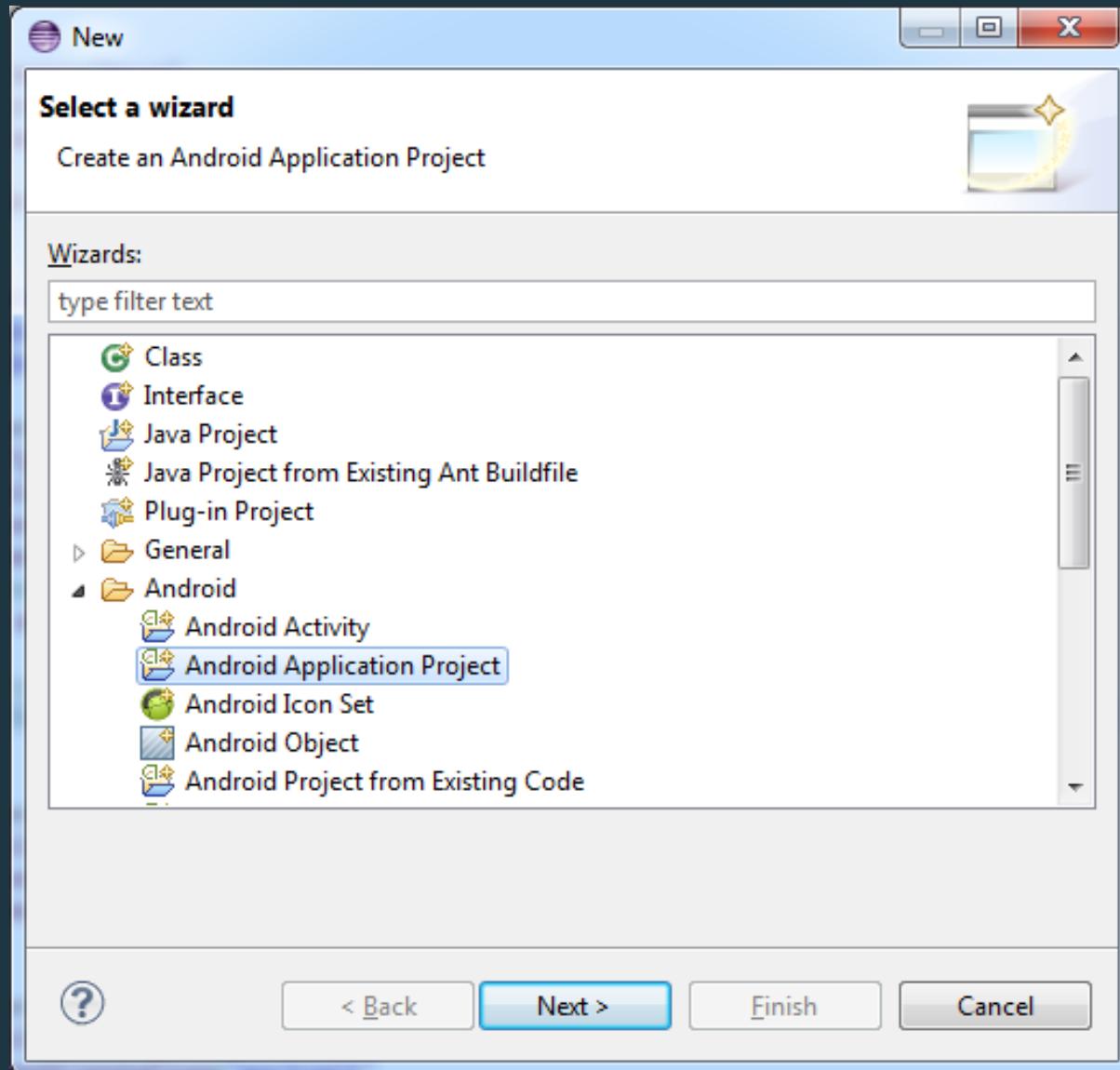
**Σημαντικό!** Ενεργοποίηση του Content Assist.

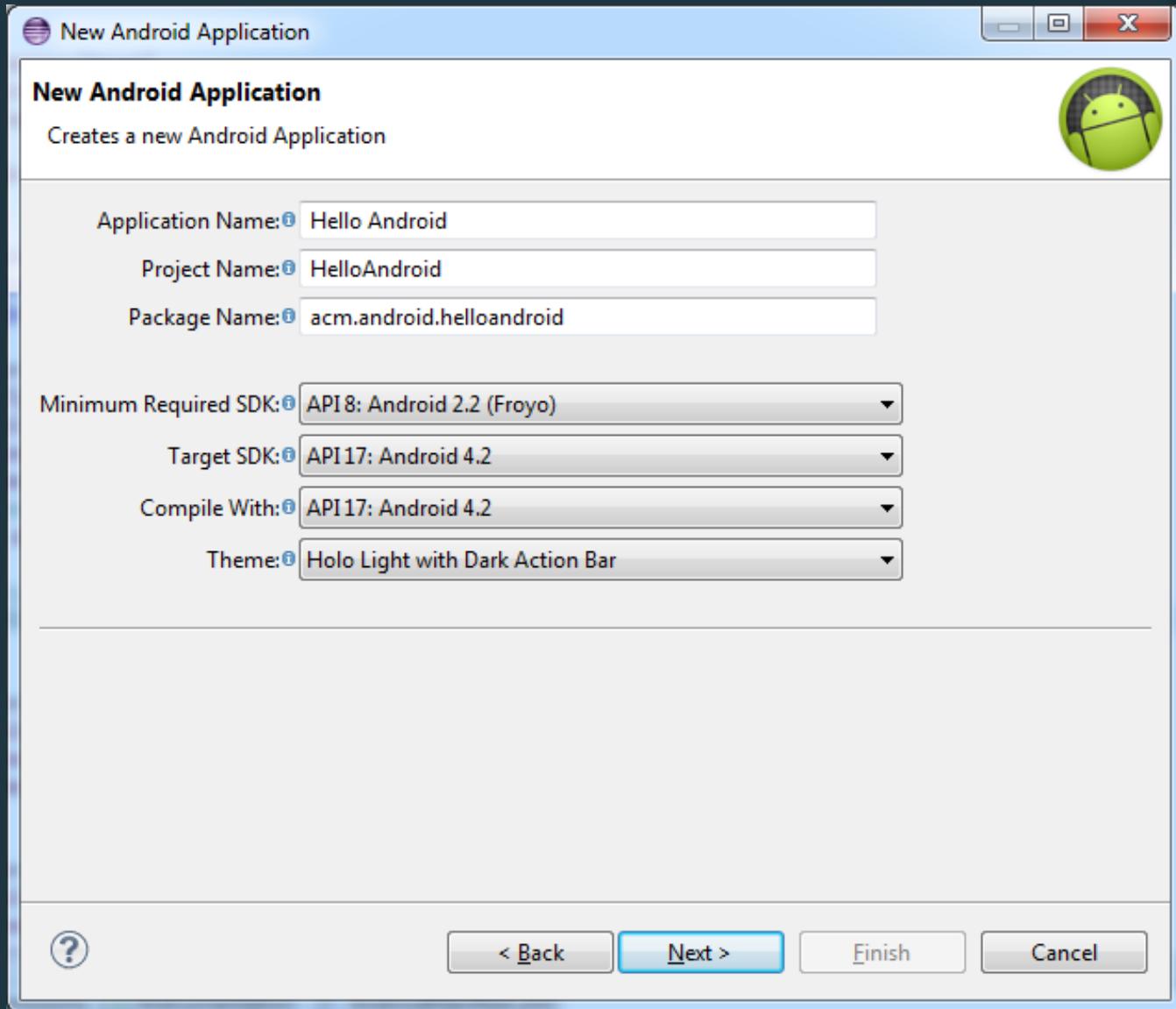
*Window > Preferences > Java > Editor > Content Assist > Advanced > Java Proposals (**on**)*

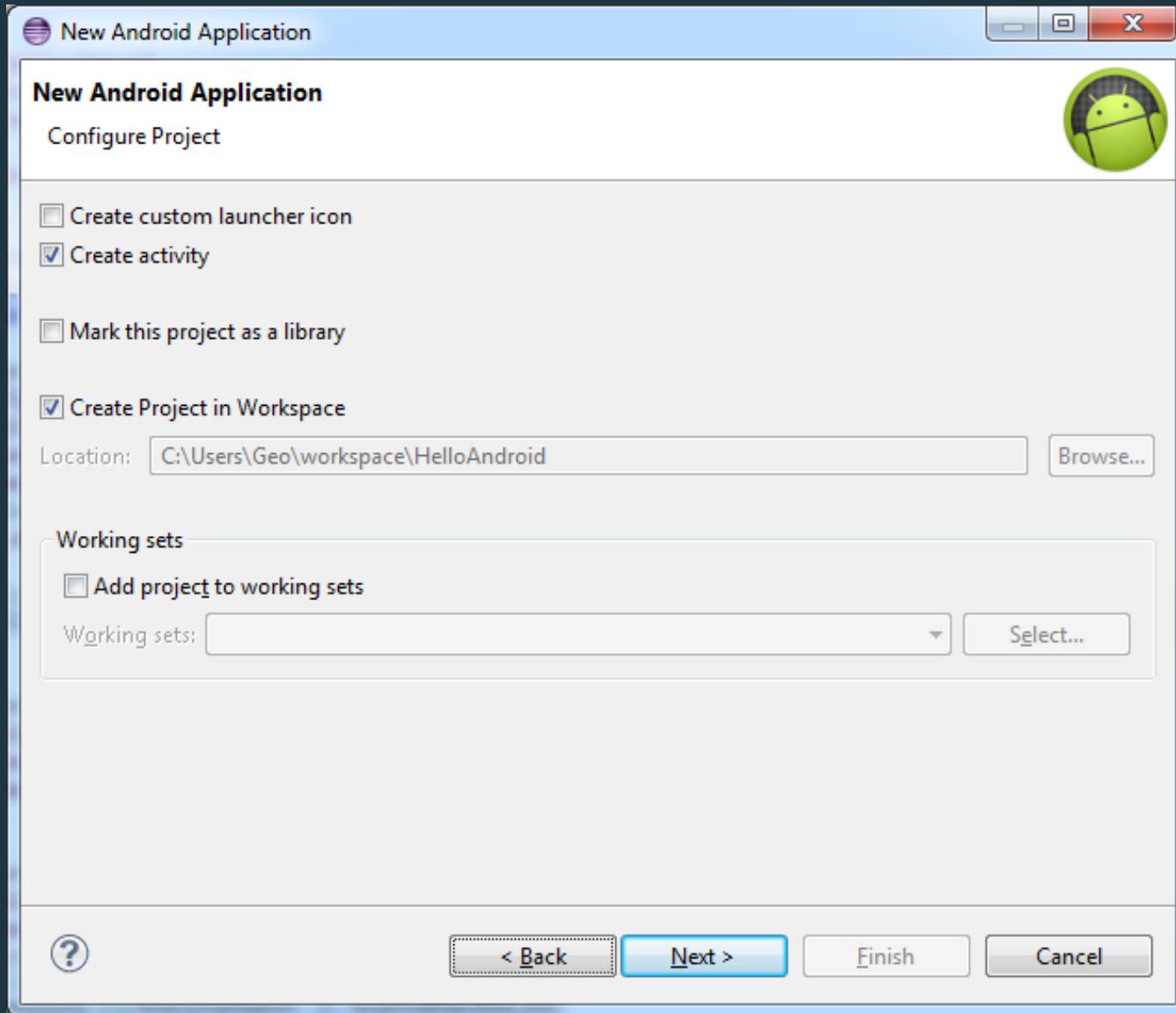


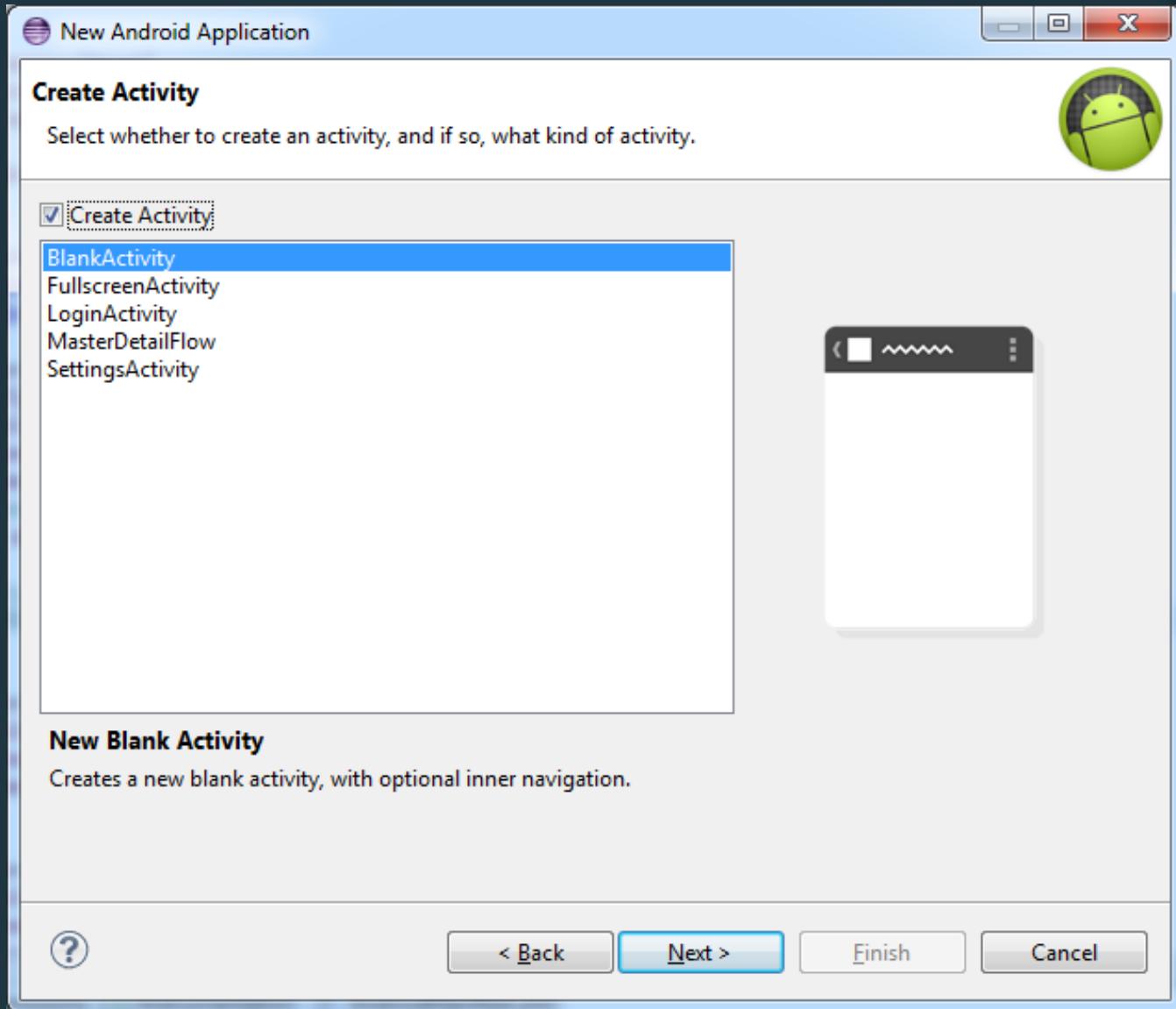


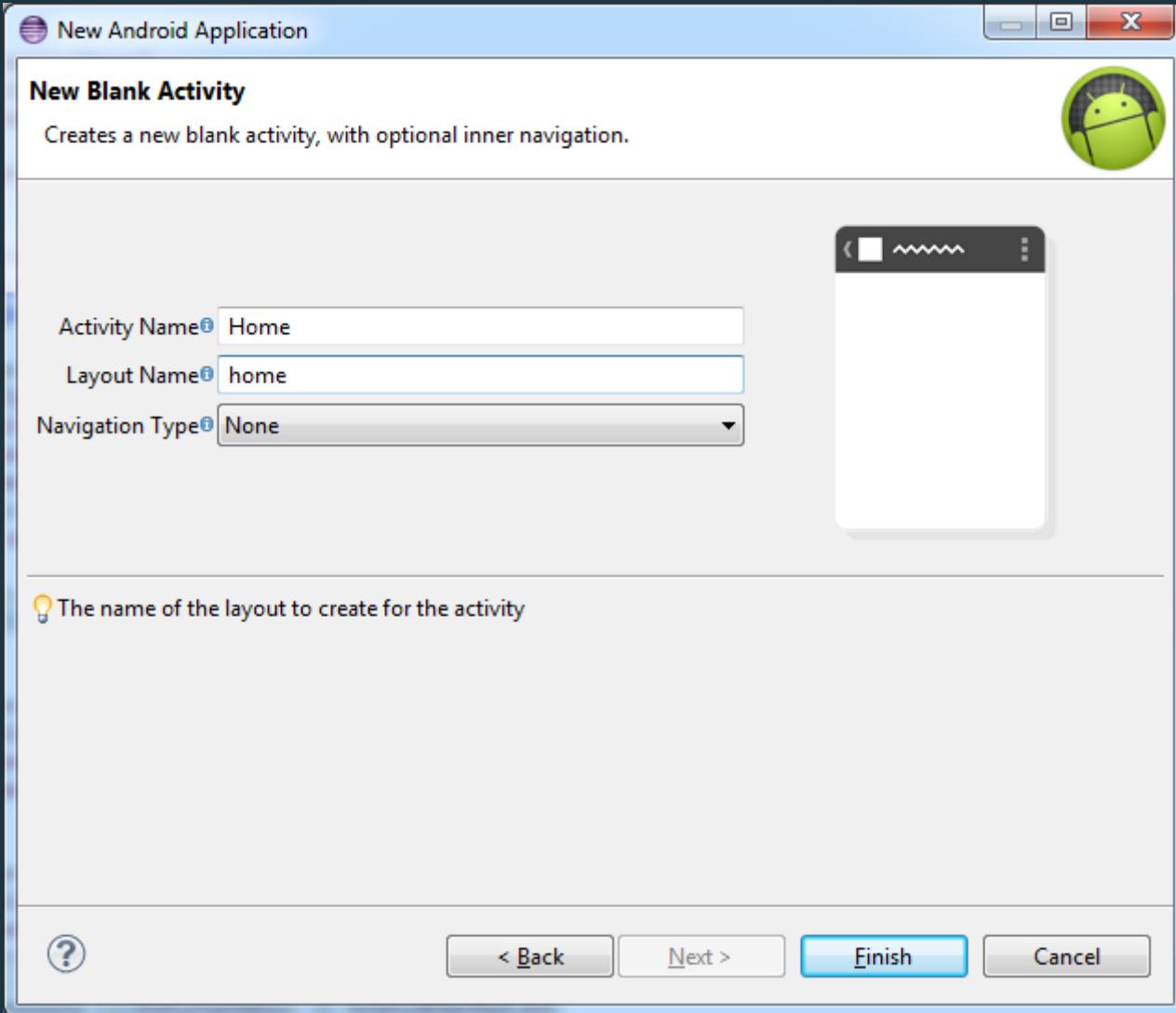


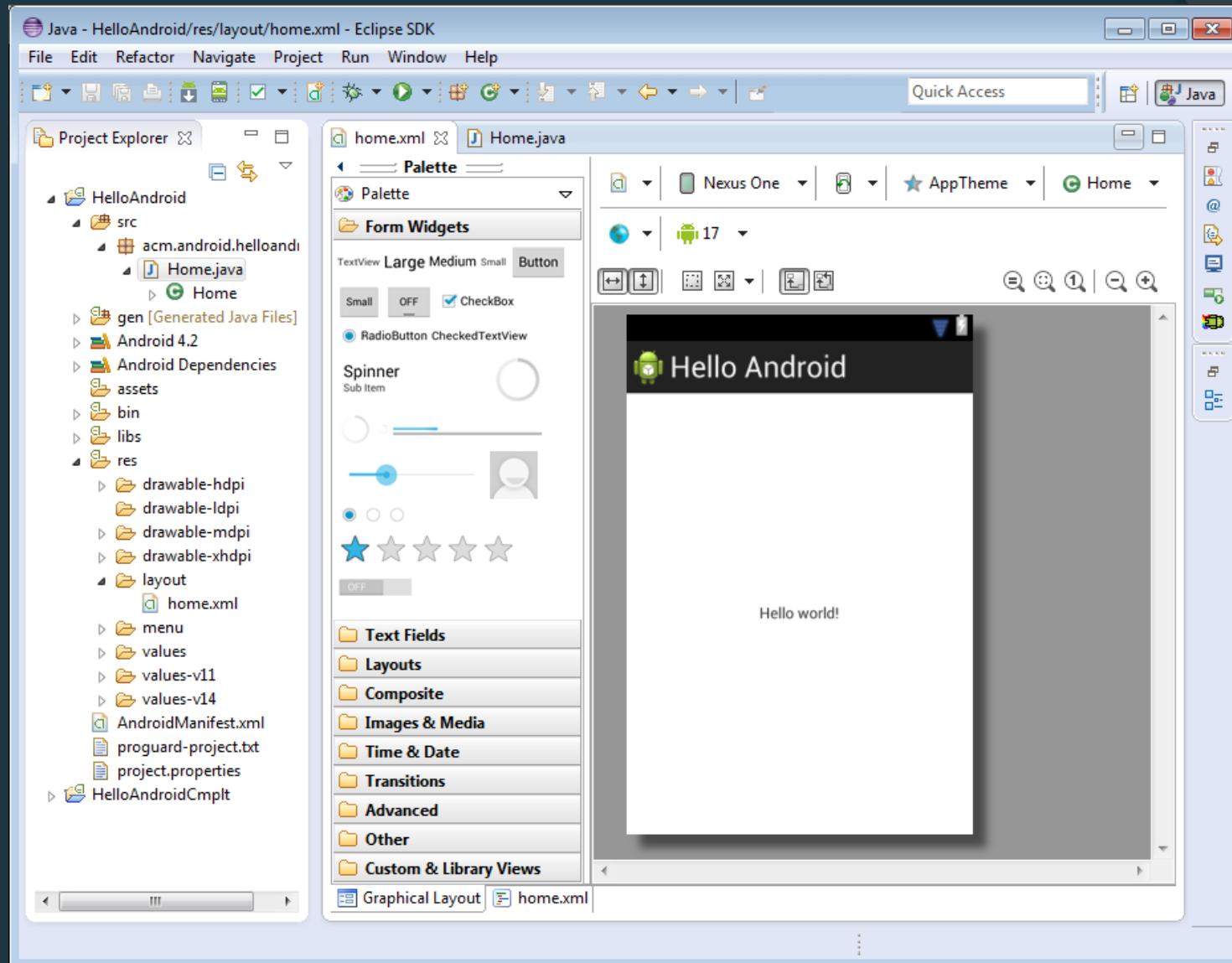












Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloandroid
      - Home.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
    - bin
    - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml Home.java

```
package acm.android.helloandroid;

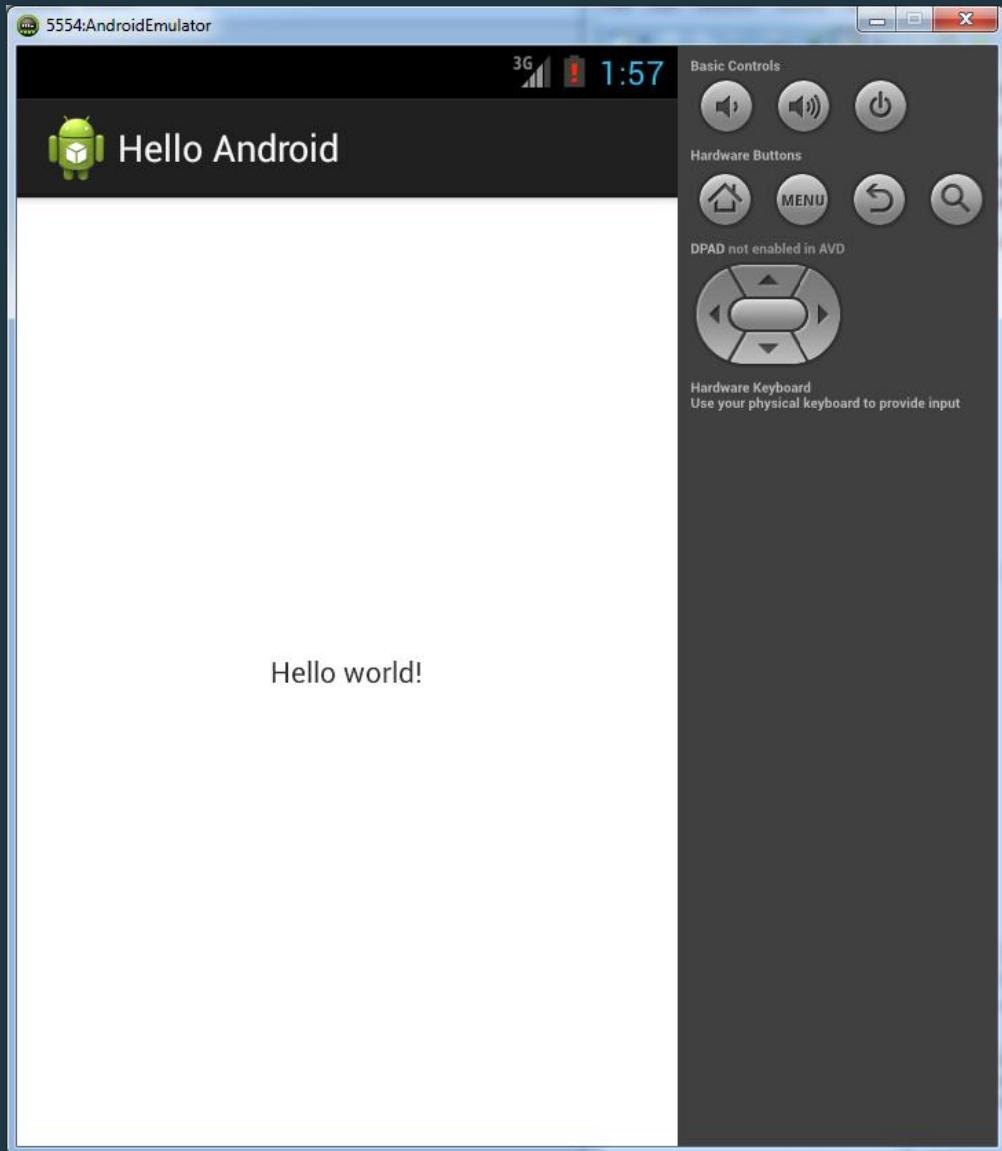
import android.os.Bundle;

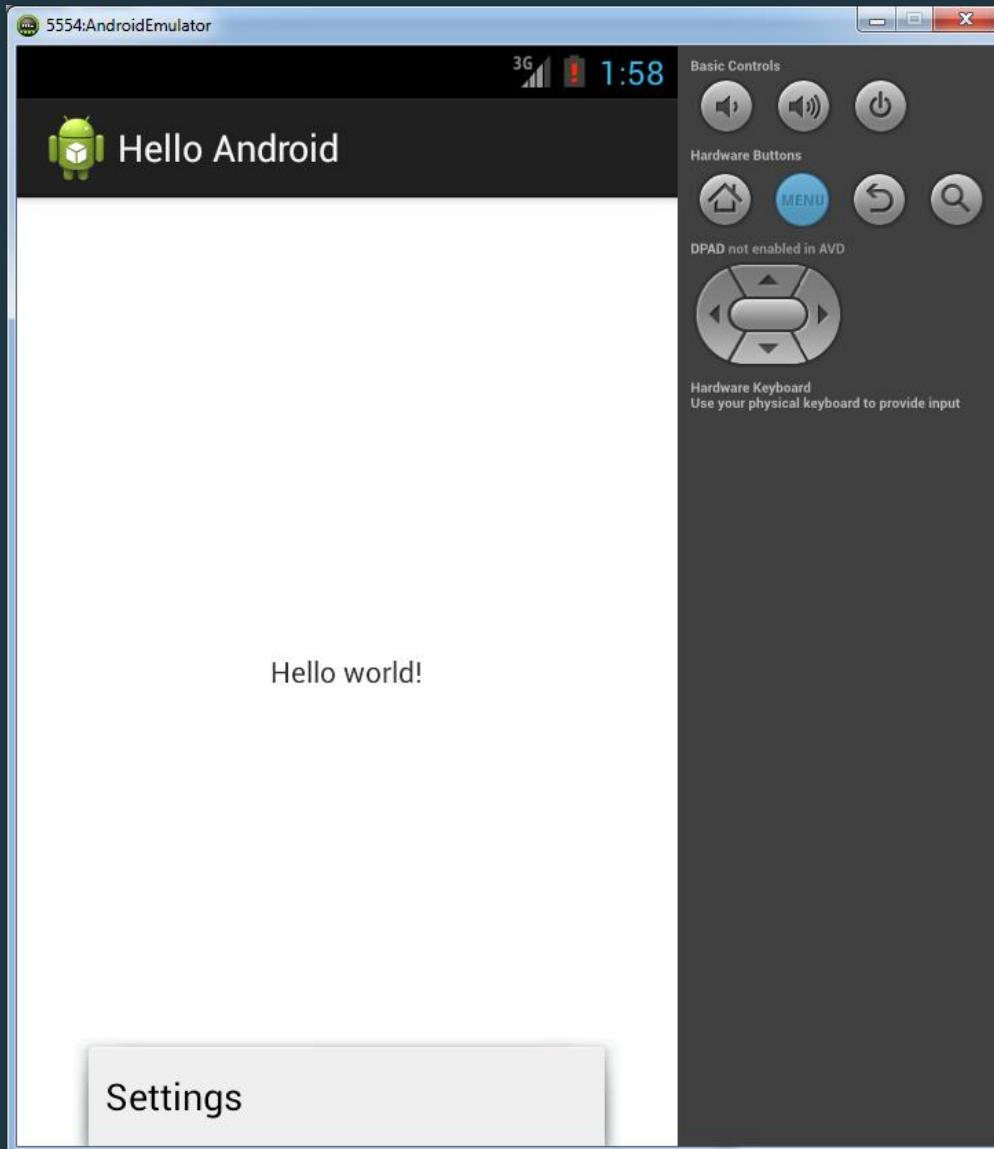
public class Home extends Activity {

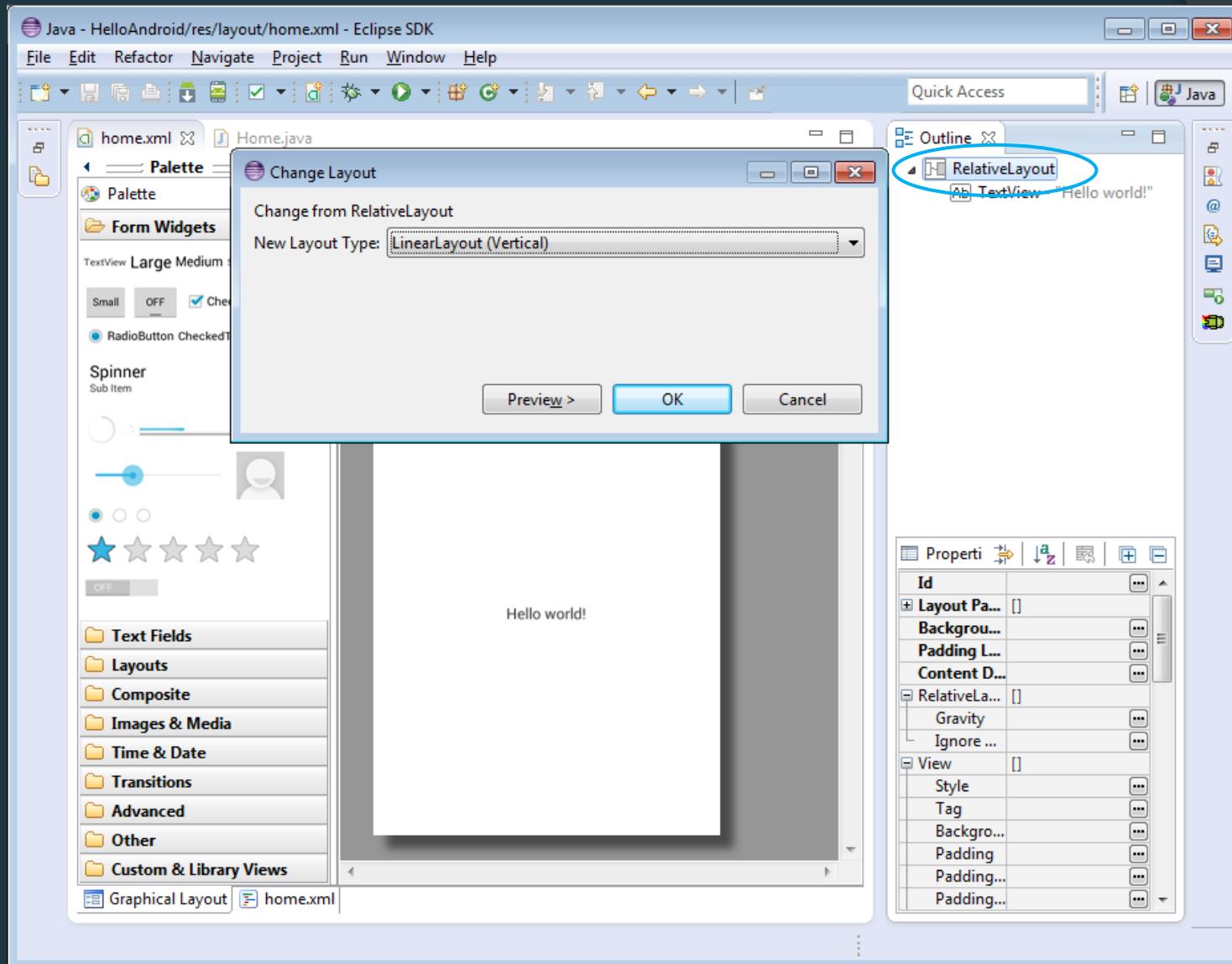
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.home);
    }

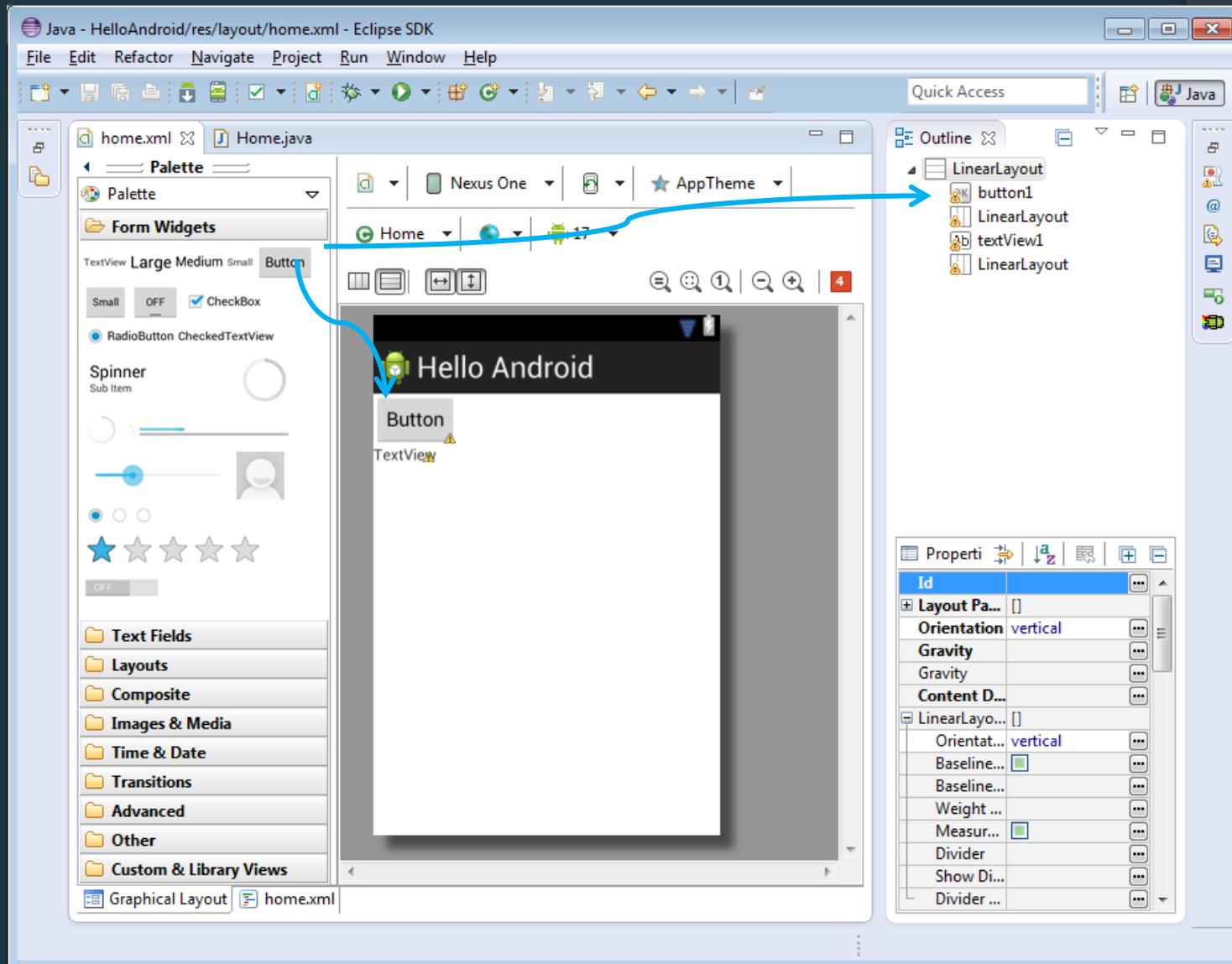
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.home, menu);
        return true;
    }
}
```

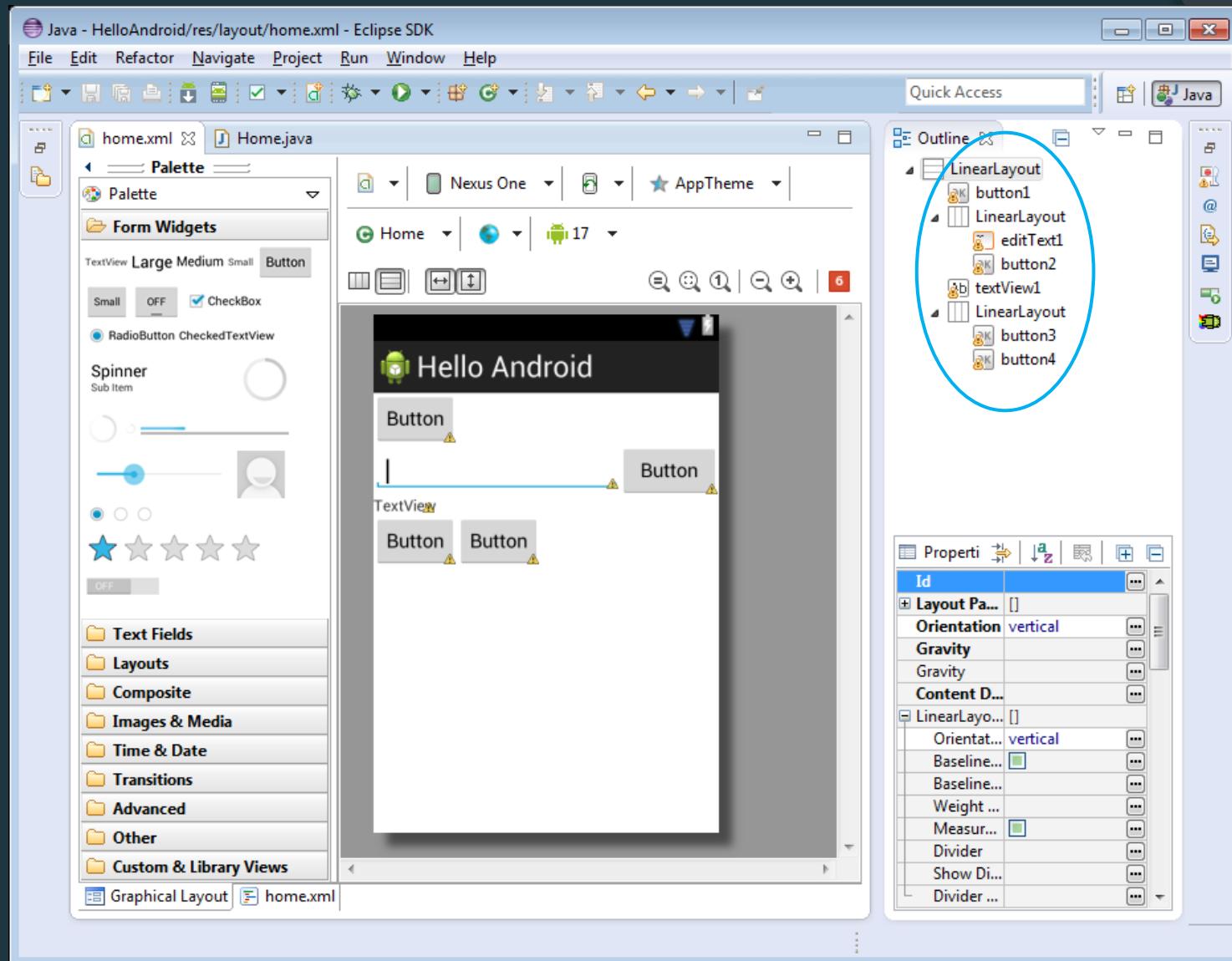
Writable Smart Insert 1 : 34











Java - HelloAndroid/res/layout/home.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

home.xml Home.java

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".Home" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content" >

        <EditText
            android:id="@+id/editText1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:ems="10" >

            <requestFocus />
        </EditText>

        <Button
            android:id="@+id/button2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Button" />
    </LinearLayout>

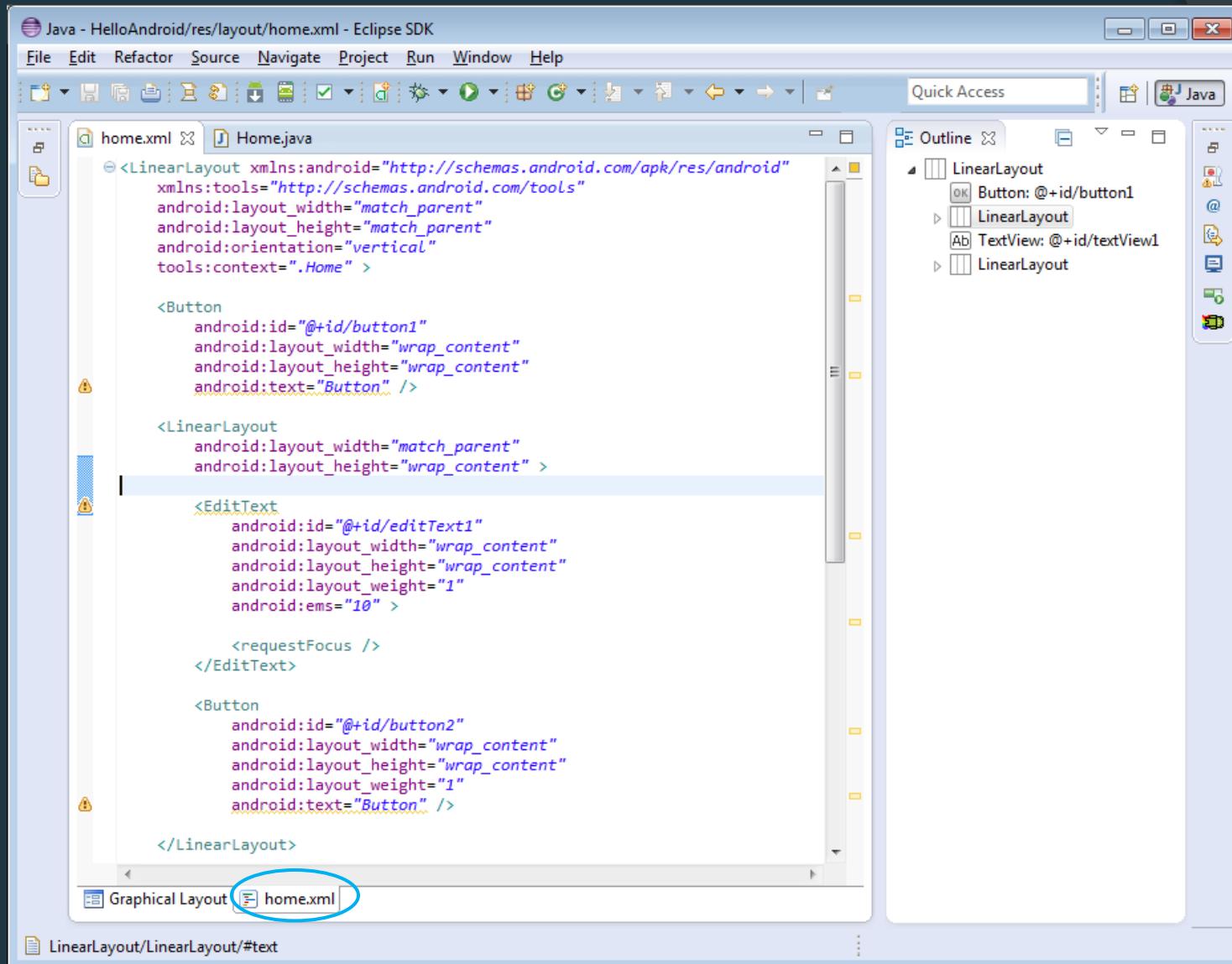
```

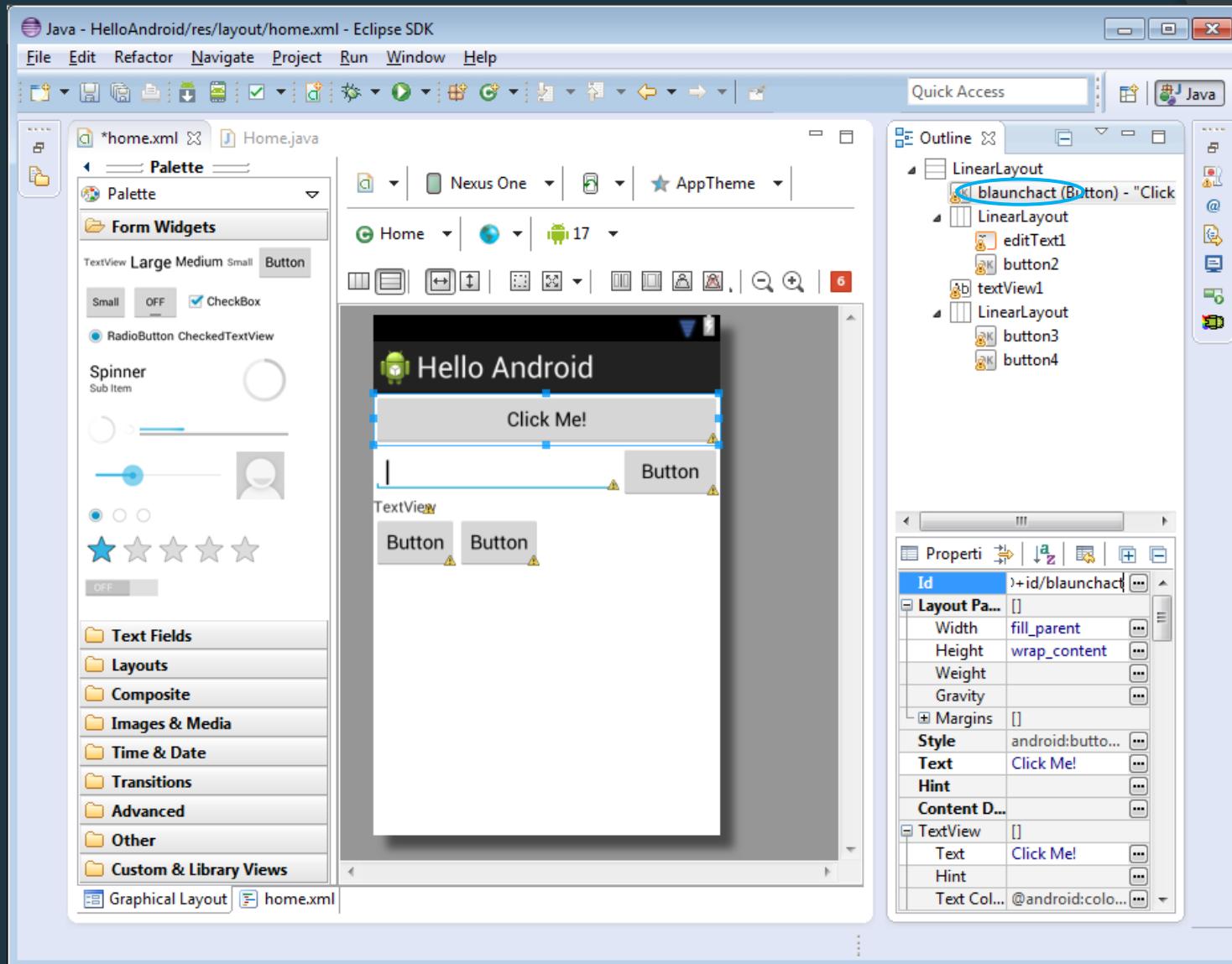
Graphical Layout home.xml

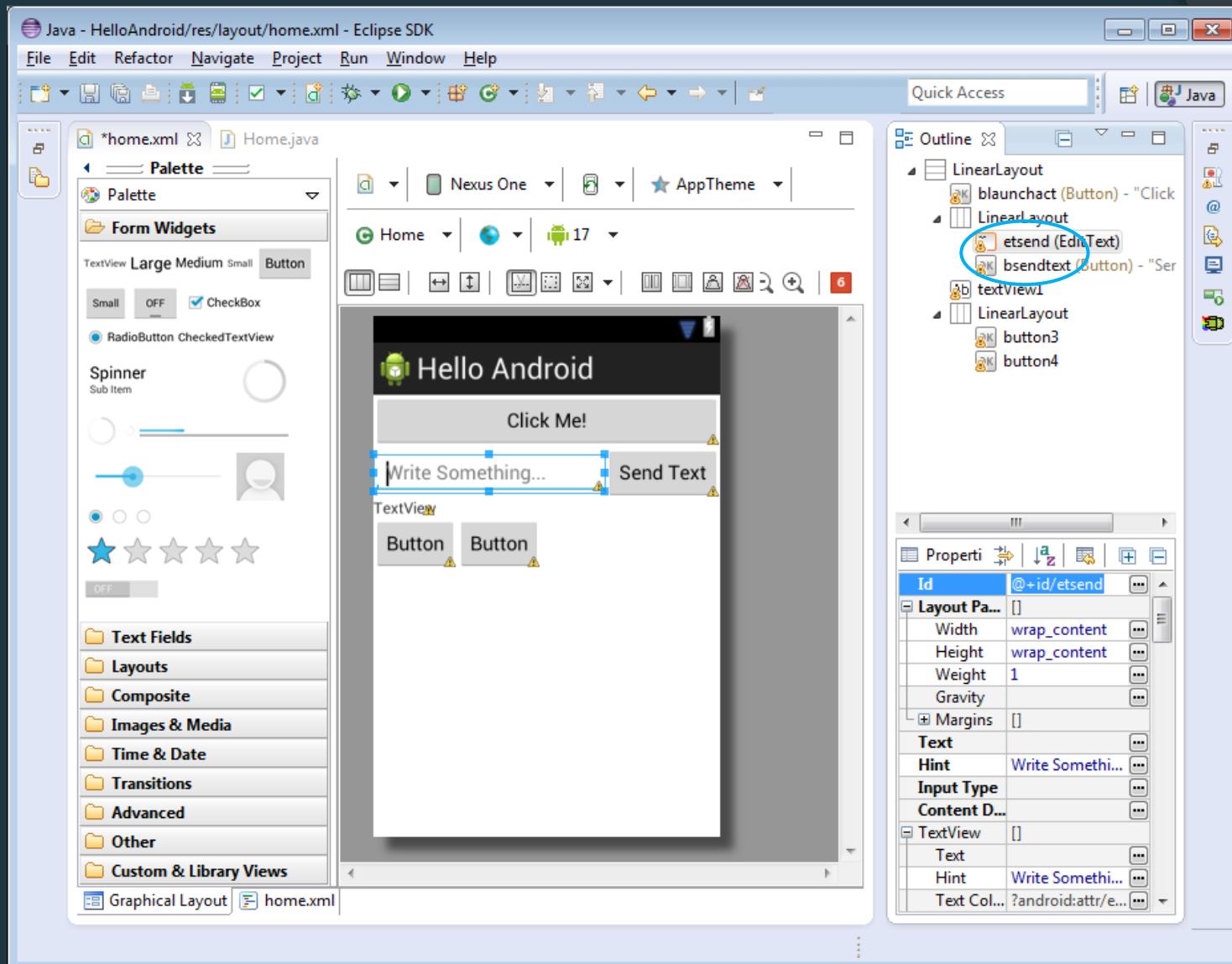
LinearLayout/LinearLayout/#text

Outline

- LinearLayout
  - Button: @+id/button1
  - LinearLayout
  - TextView: @+id/textView1
  - LinearLayout







Java - HelloAndroid/res/layout/home.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

\*home.xml Home.java

```
    android:ems="10"
    android:hint="Write Something..." >

    <requestFocus />
</EditText>

<Button
    android:id="@+id/bsendtext"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:text="Send Text" />

</LinearLayout>

<TextView
    android:id="@+id/tvreply"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:visibility=""
    android:text="Reply" >

    <LinearLayout
        android:layout_width=
        android:layout_height

        <Button
            android:id="@+id/"
            android:layout_wi
            android:layout_he
            android:text="But

            <Button
                android:id="@+id/"
                android:layout_wi
                android:layout he

    Graphical Layout home.xml
```

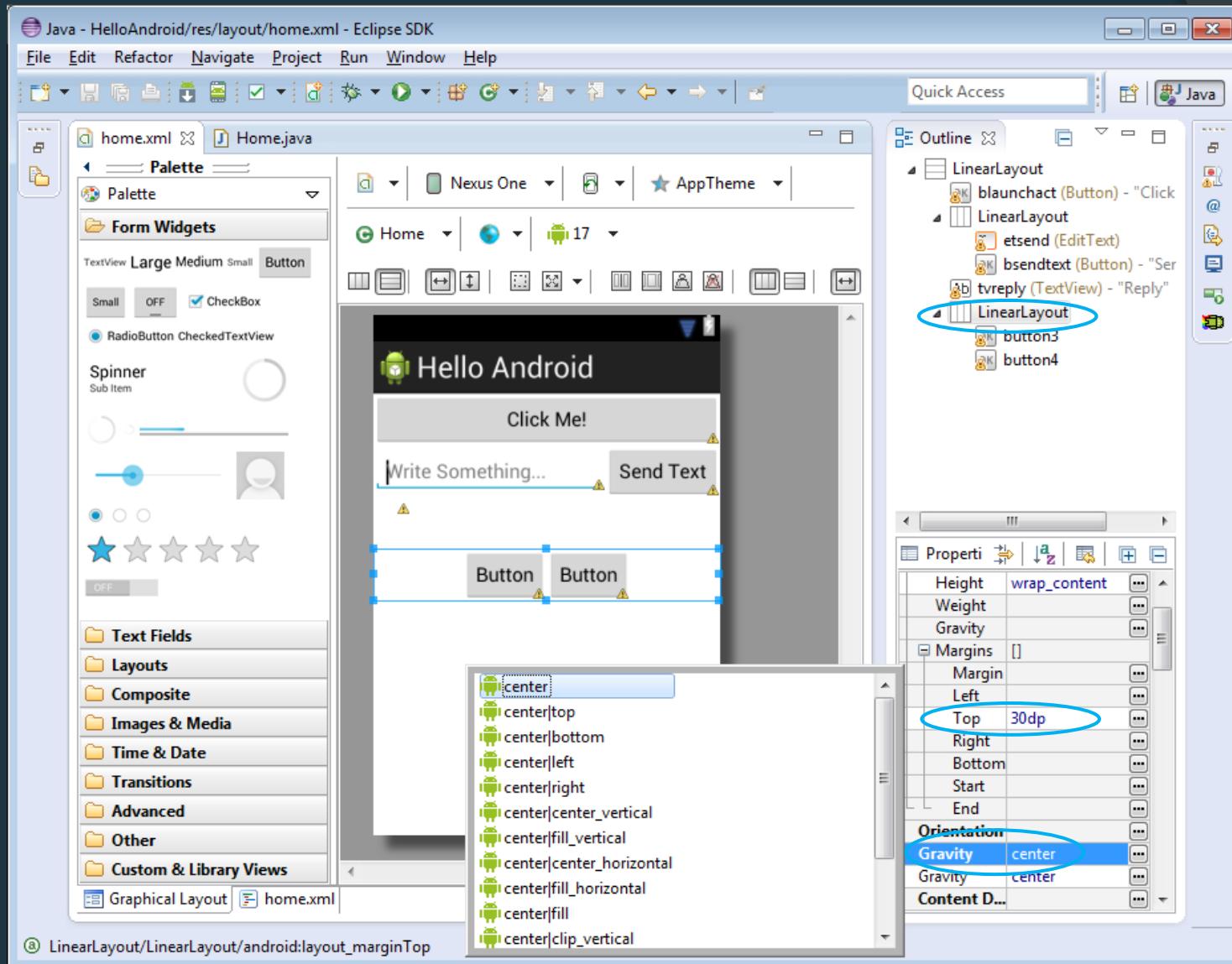
Outline

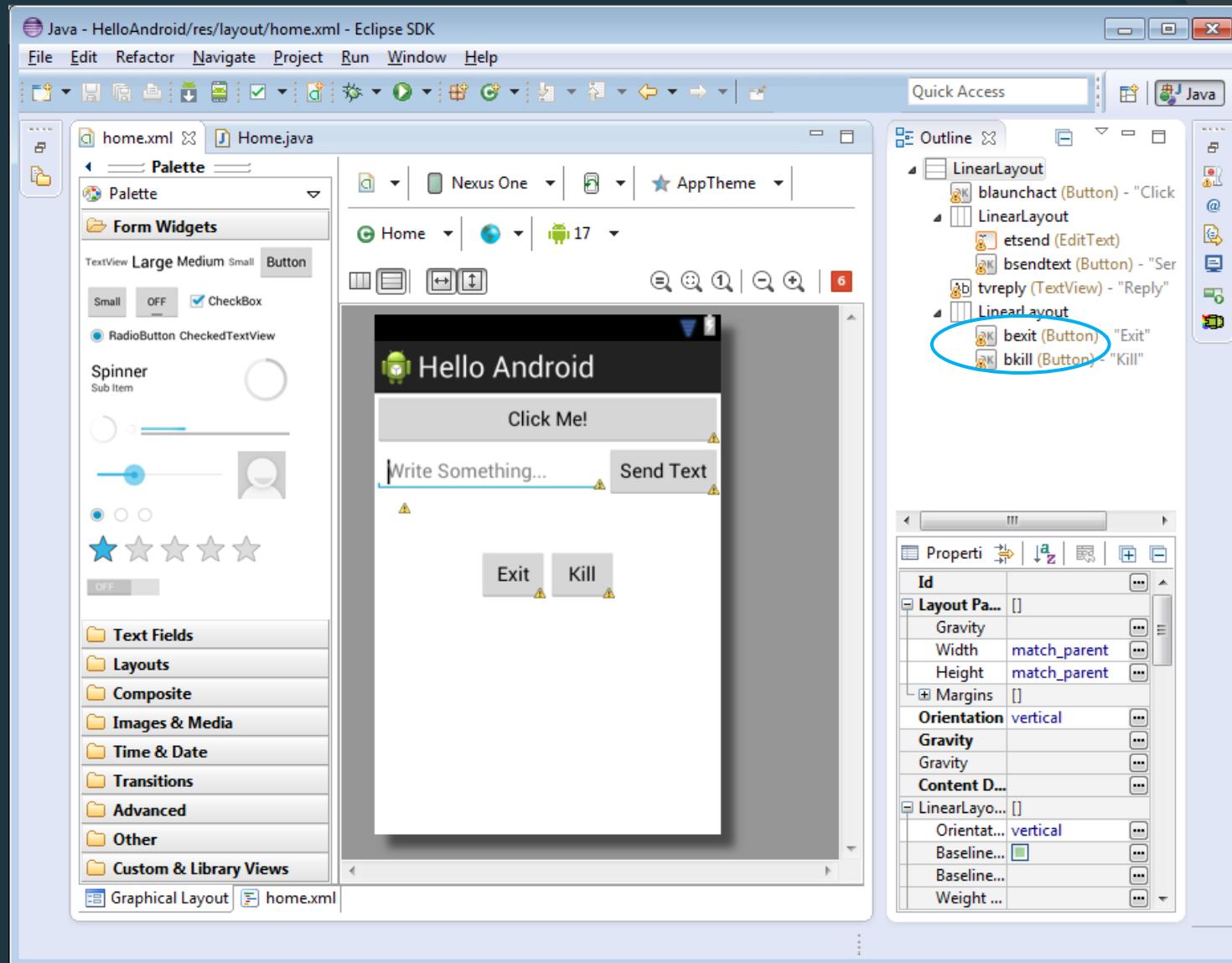
- LinearLayout
  - Button: @+id/blauchact
  - LinearLayout
  - TextView: @+id/tvreply
  - LinearLayout

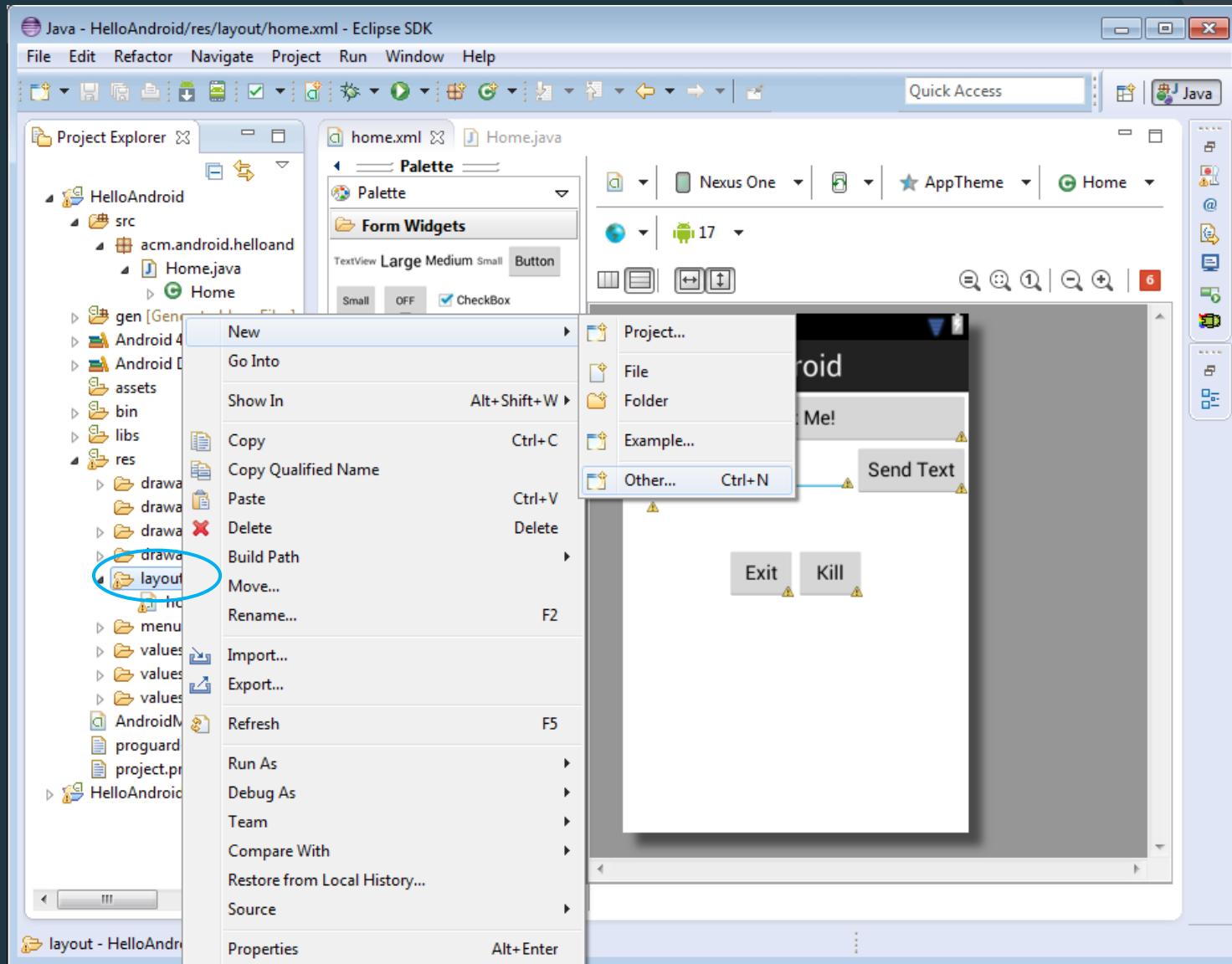
Graphical Layout home.xml

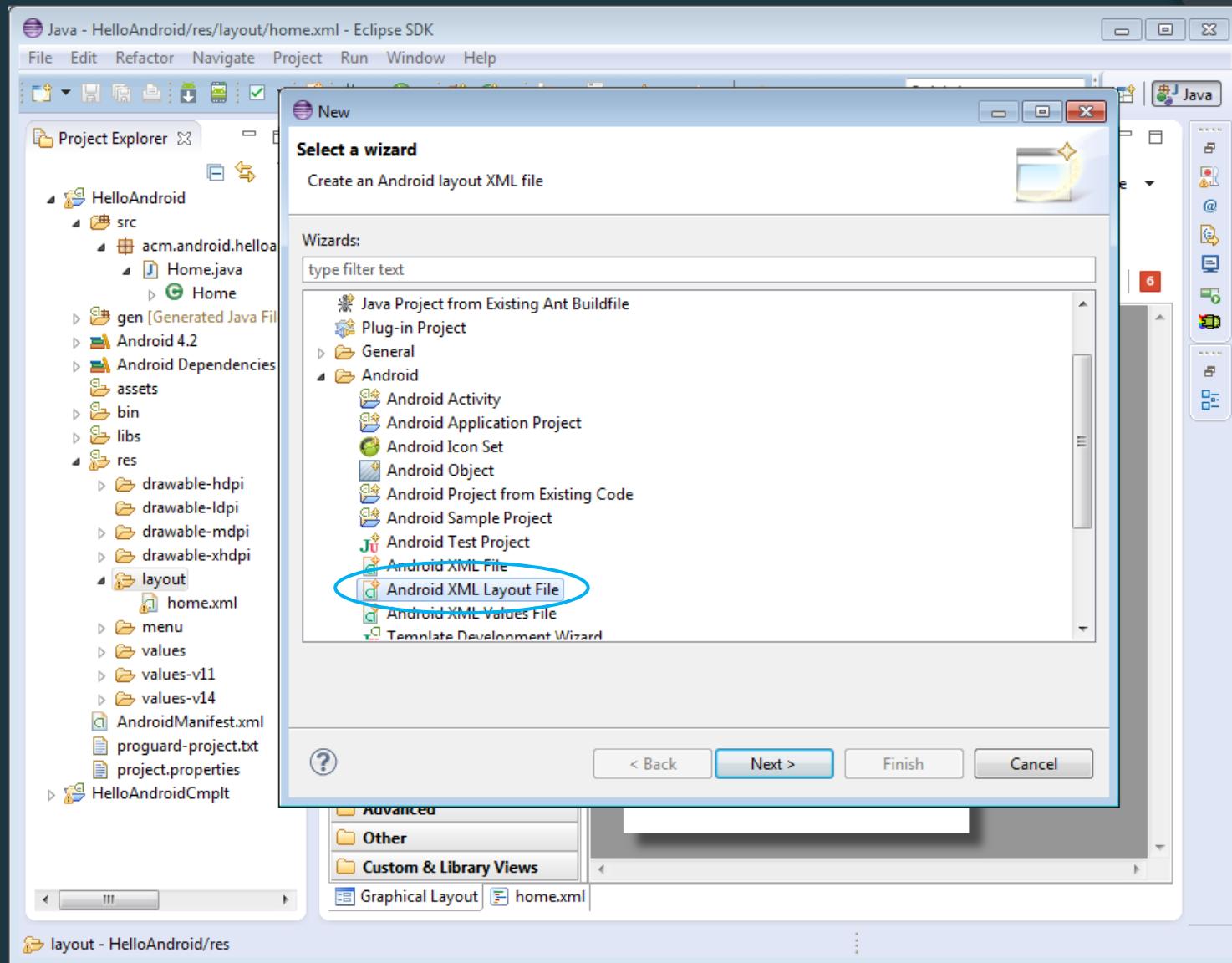
③ LinearLayout/TextView/android:visibility

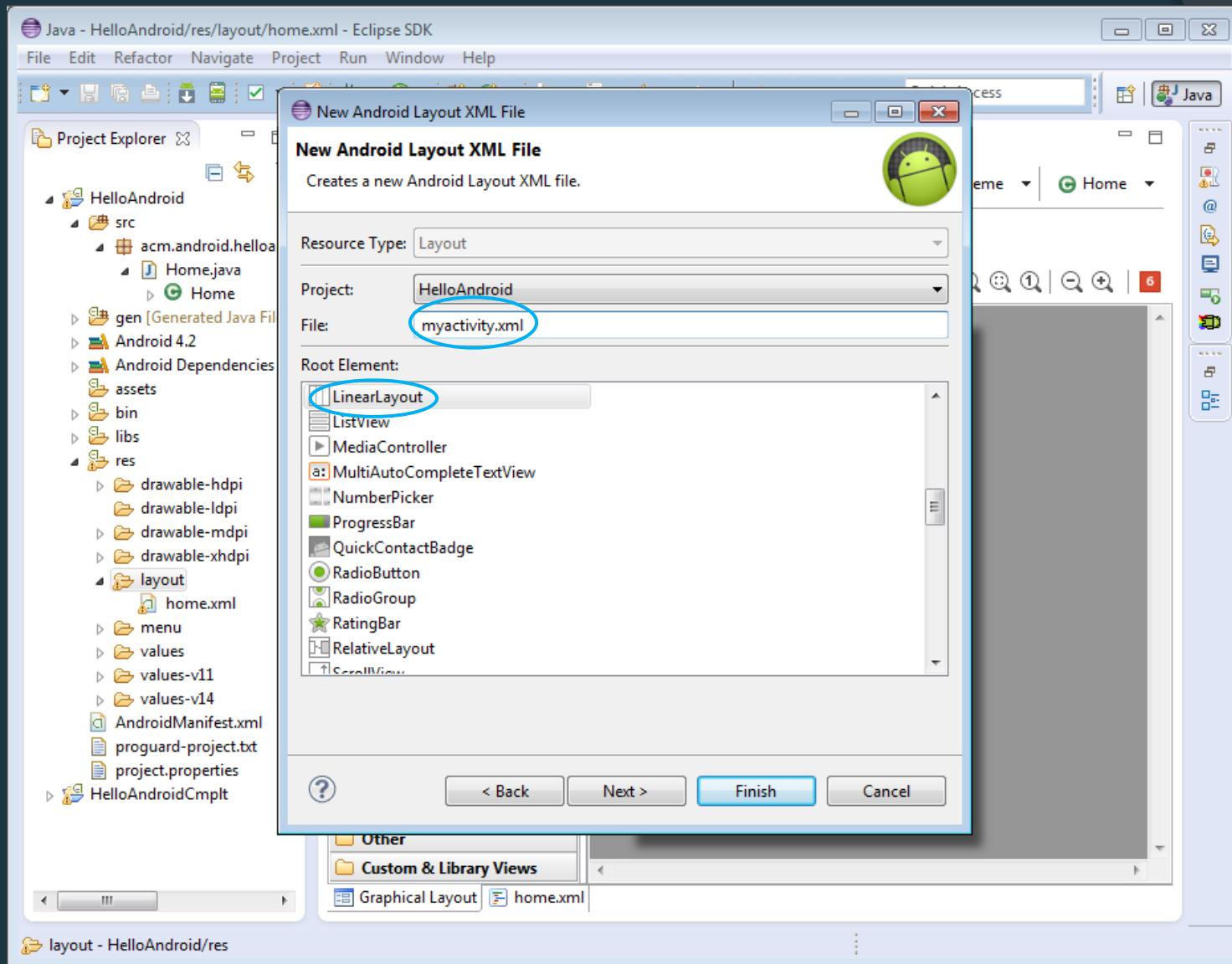
Ctrl+Space : Auto Complete & Recommendations

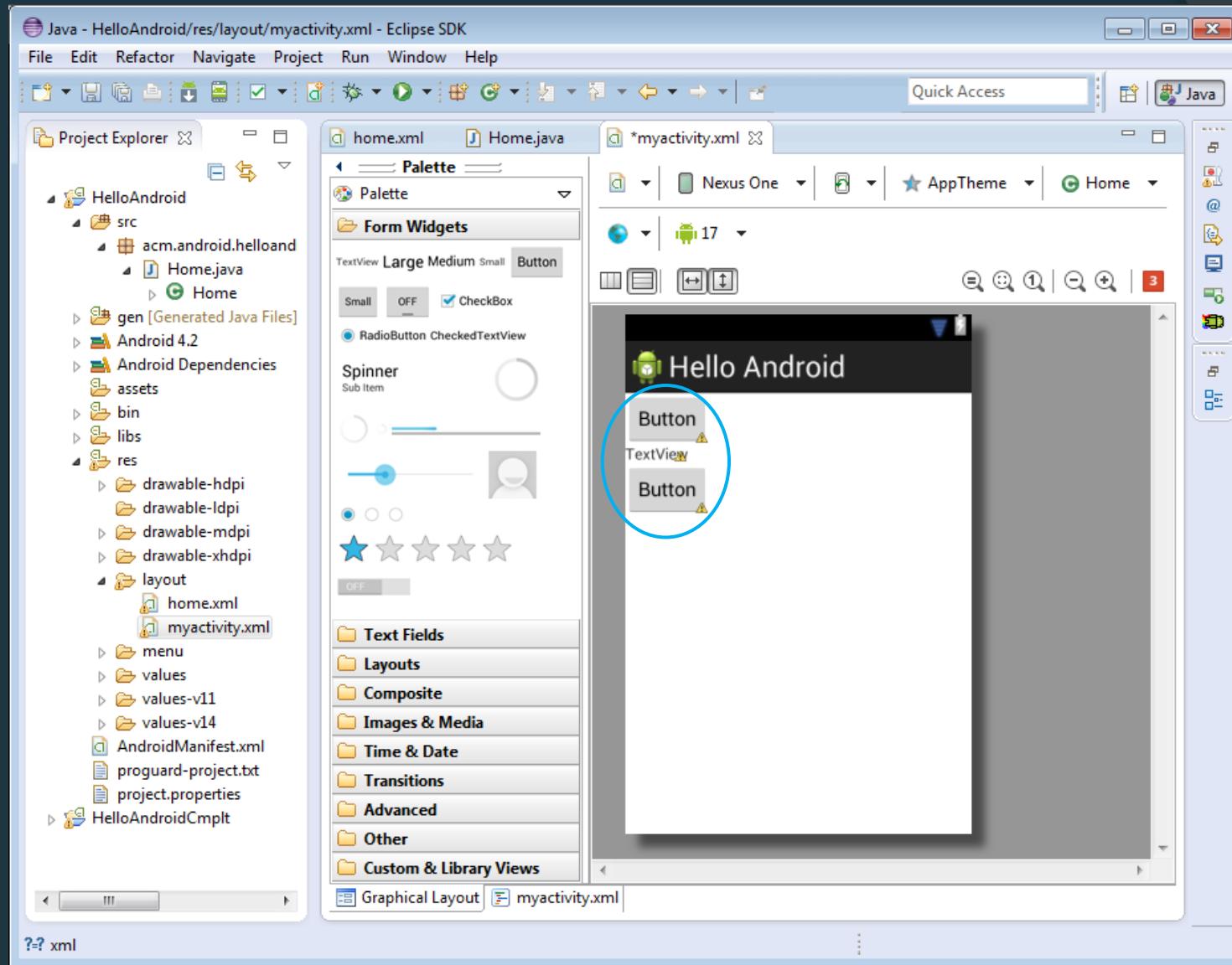












Java - HelloAndroid/res/layout/myactivity.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml Home.java \*myactivity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical" >

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button" />

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="TextView" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button" />

</LinearLayout>
```

Graphical Layout myactivity.xml

Java - HelloAndroid/res/layout/myactivity.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
    - bin
    - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml Home.java \*myactivity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center"
    android:orientation="horizontal">

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button" />

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="TextView" />

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button" />

</LinearLayout>
```

Graphical Layout myactivity.xml

Java - HelloAndroid/res/layout/myactivity.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml Home.java \*myactivity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center"
    android:orientation="horizontal" >

    <Button
        android:id="@+id/bminus"
        android:layout_width="80dp"
        android:layout_height="80dp"
        android:text="-" />
    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="TextView" />
    <Button
        android:id="@+id/bplus"
        android:layout_width="80dp"
        android:layout_height="80dp"
        android:text"+" />
</LinearLayout>
```

Graphical Layout myactivity.xml

The screenshot shows the Eclipse IDE interface with the Java perspective selected. The title bar reads "Java - HelloAndroid/res/layout/myactivity.xml - Eclipse SDK". The menu bar includes File, Edit, Refactor, Source, Navigate, Project, Run, Window, and Help. A toolbar with various icons is located above the main workspace. The left side features the "Project Explorer" view, which lists the project structure of "HelloAndroid". The "res" folder contains "layout" subfolders for different screen densities (hdpi, ldpi, mdpi, xhdpi) and a specific "layout" folder containing "home.xml" and "myactivity.xml". The "src" folder contains a package "acm.android.helloand" with a file "Home.java". Other files listed include "Android 4.2", "Android Dependencies", "assets", "bin", "libs", "AndroidManifest.xml", "proguard-project.txt", and "project.properties". The "HelloAndroidCmplt" icon is also visible. The central workspace displays the XML code for "myactivity.xml". Two buttons defined in the XML are circled with blue ellipses: the first button has an ID of "@+id/bminus" and the second has an ID of "@+id/bplus". Both buttons have a width of 80dp and a height of 80dp. The first button's text is set to "-" and the second to "+". Below the XML code, tabs for "Graphical Layout" and "myactivity.xml" are visible. The status bar at the bottom shows navigation icons.

Java - HelloAndroid/res/layout/myactivity.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml Home.java myactivity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center"
    android:orientation="horizontal" >

    <Button
        android:id="@+id/bminus"
        android:layout_width="80dp"
        android:layout_height="80dp"
        android:text="-" />

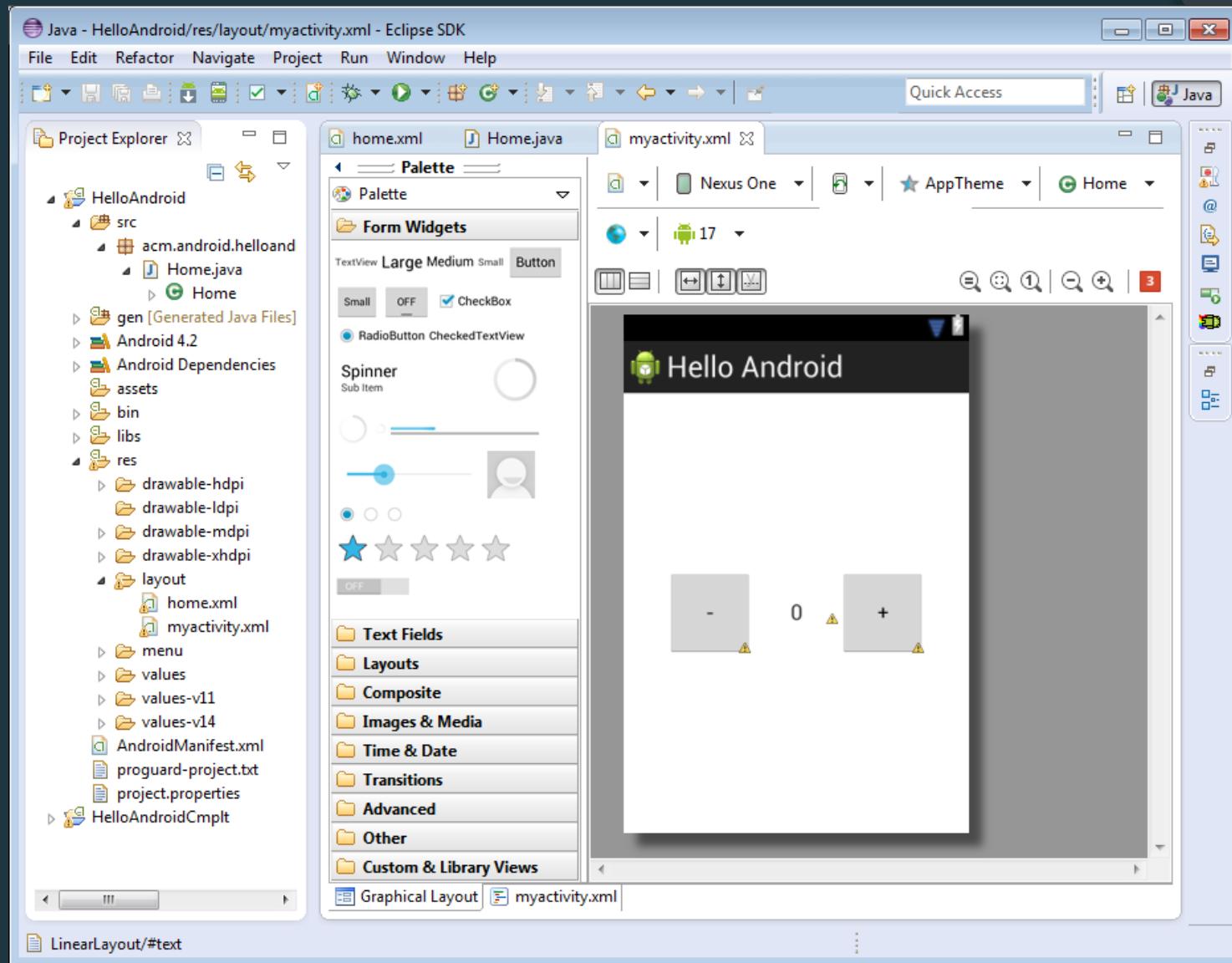
    <TextView
        android:id="@+id/tvnumber"
        android:layout_width="80dp"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:text="0"
        android:textSize="20sp" />

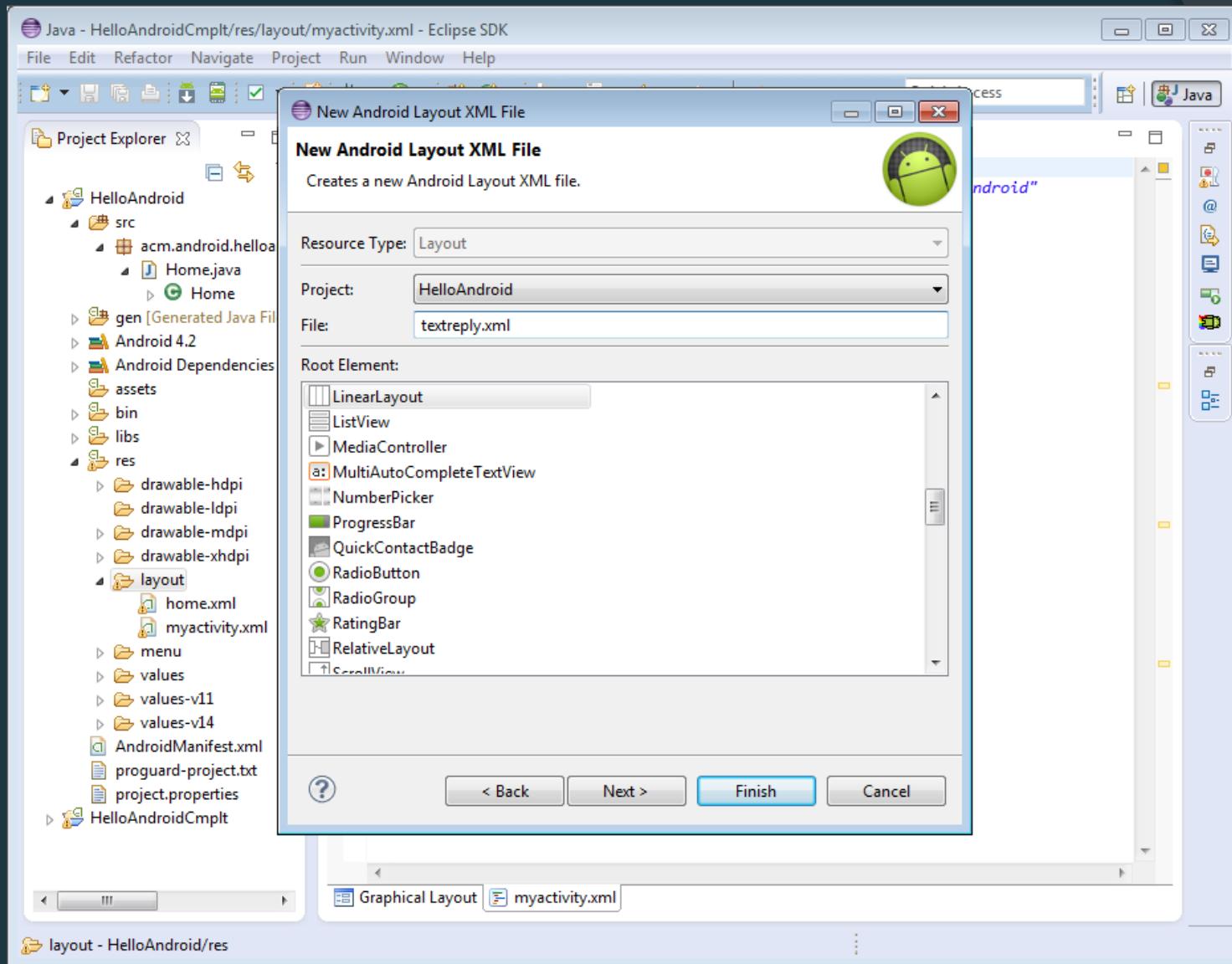
    <Button
        android:id="@+id/bplus"
        android:layout_width="80dp"
        android:layout_height="80dp"
        android:text="+" />
</LinearLayout>
```

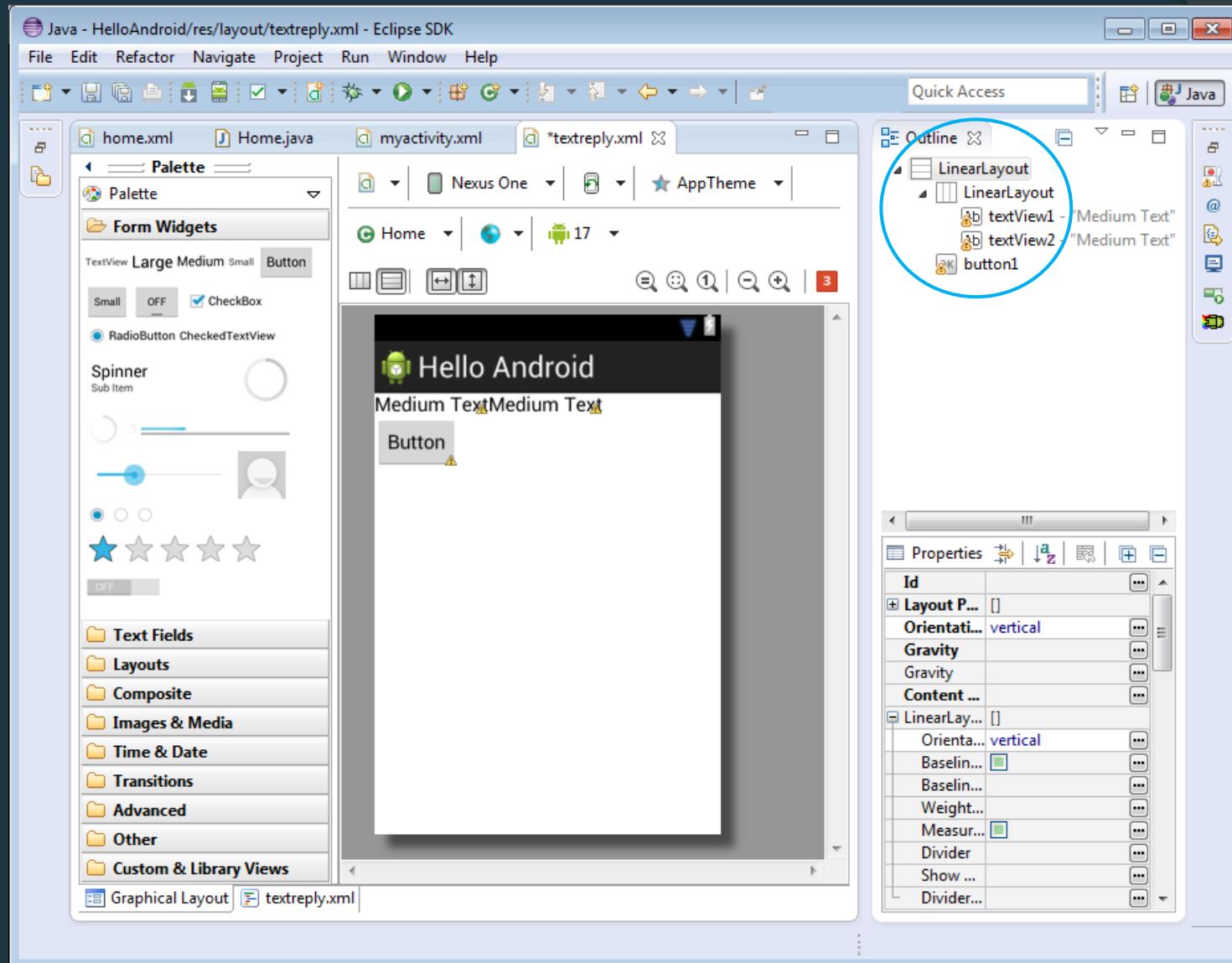
Graphical Layout myactivity.xml

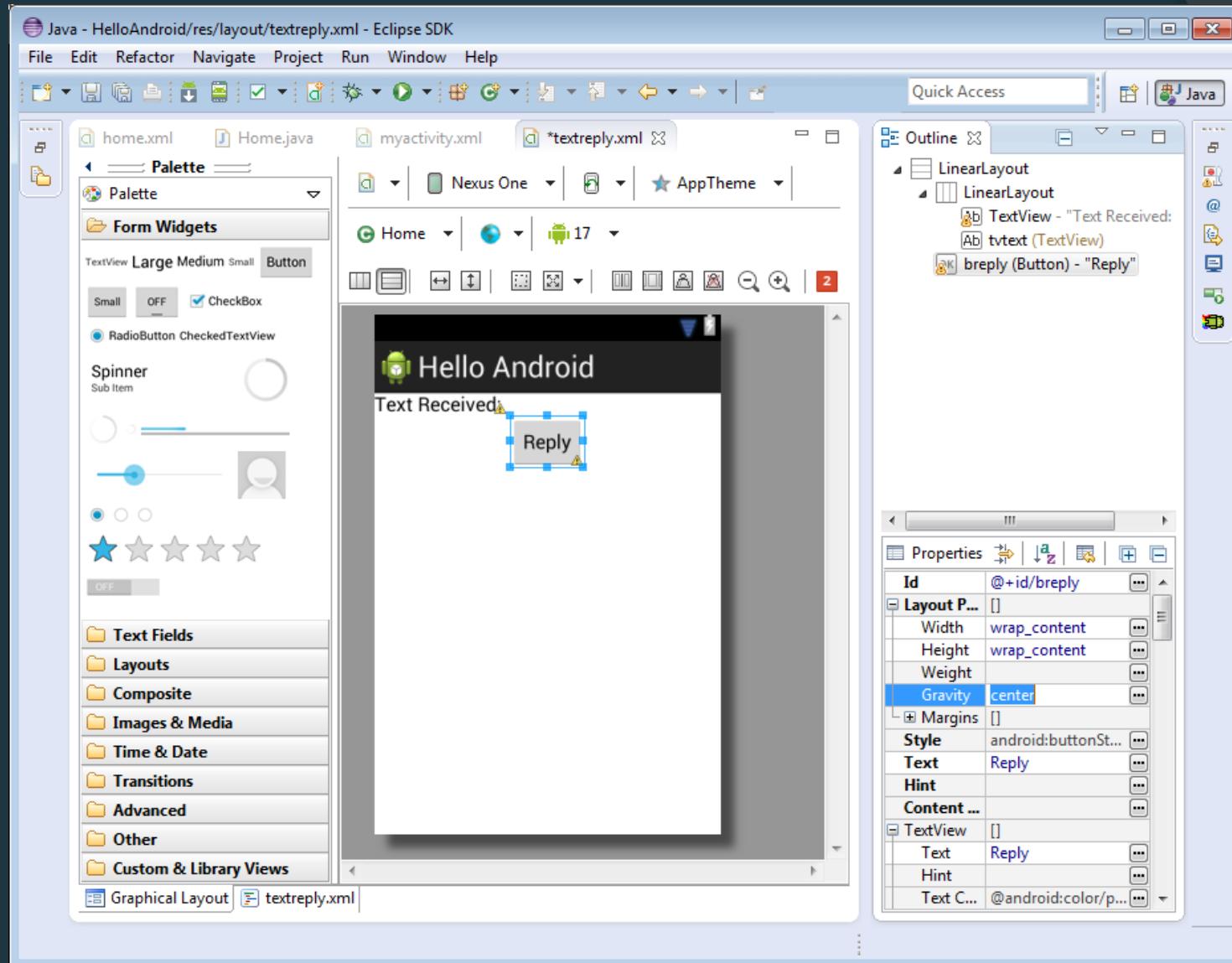
LinearLayout/#text

The screenshot shows the Eclipse IDE interface for an Android project named "HelloAndroid". The left pane displays the "Project Explorer" with files like Home.java, home.xml, and myactivity.xml. The right pane shows the XML code for "myactivity.xml". A blue oval highlights the `<TextView` element with `id="@+id/tvnumber"`. The XML code defines a linear layout with three buttons and one text view. The text view is centered, has a size of 20sp, and contains the digit '0'.









Java - HelloAndroid/gen/acm/android/helloandroid/R.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloandroid
      - Home.java
      - Home
  - gen [Generated Java Files]
    - acm.android.helloandroid
      - BuildConfig.java
      - R.java
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
  - layout
    - home.xml
    - myactivity.xml
    - textreply.xml
  - menu
  - values
  - values-v11
  - values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

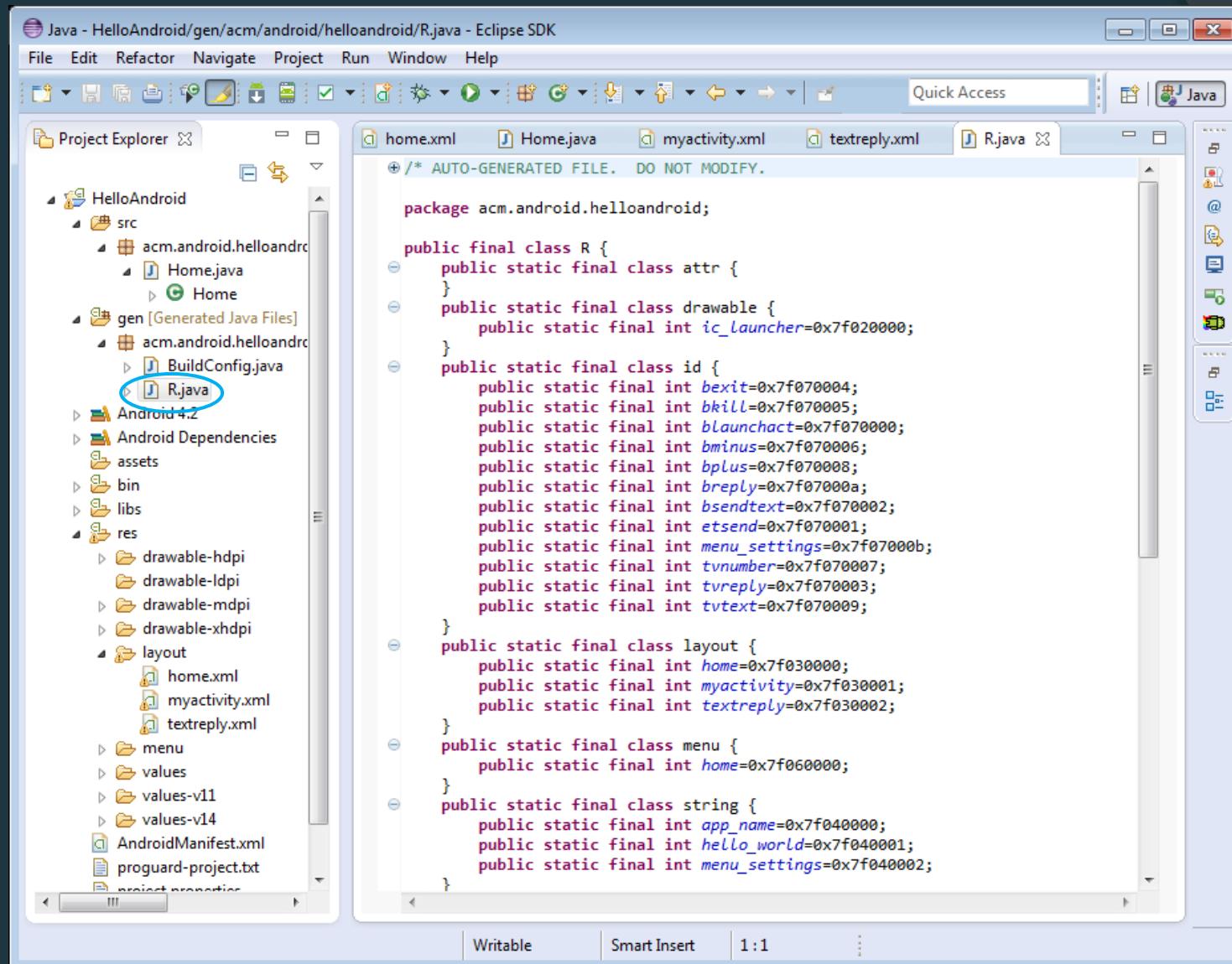
home.xml Home.java myactivity.xml textreply.xml R.java

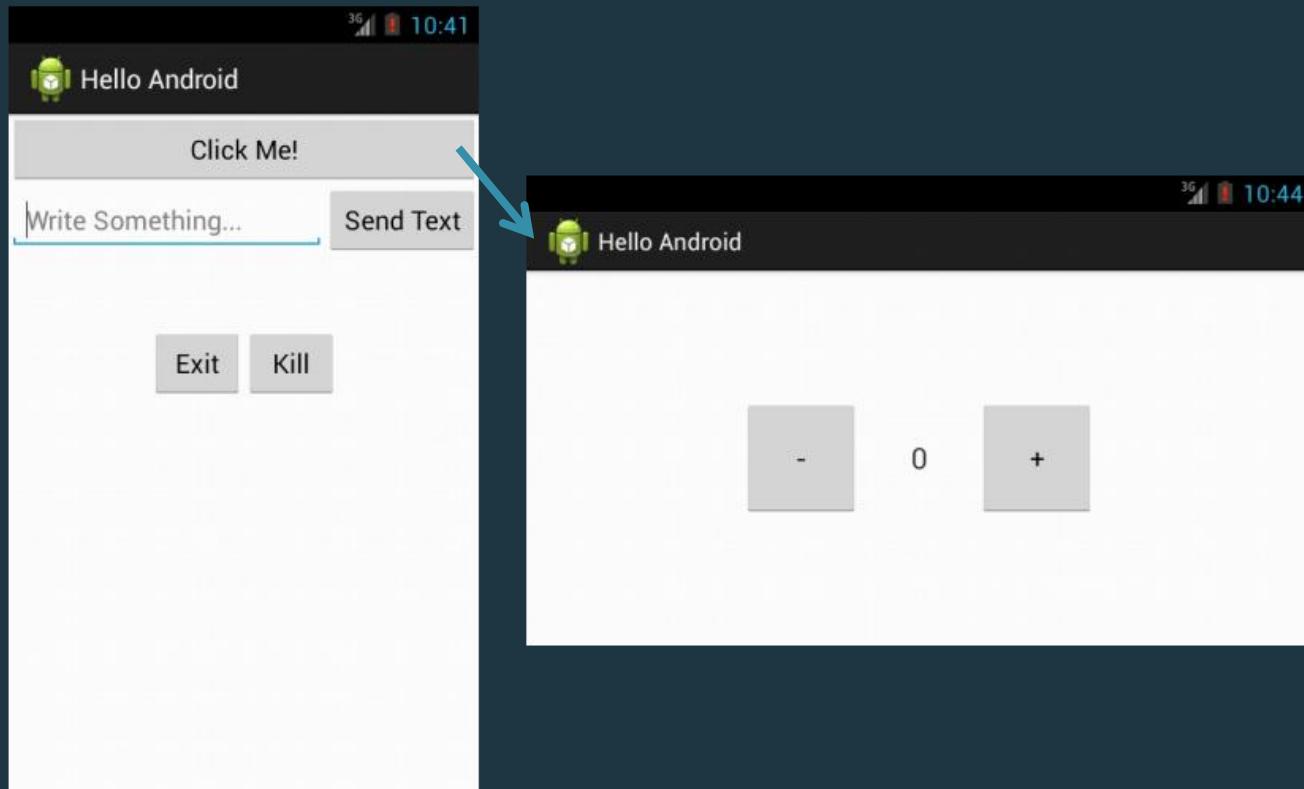
```
/* AUTO-GENERATED FILE. DO NOT MODIFY. */

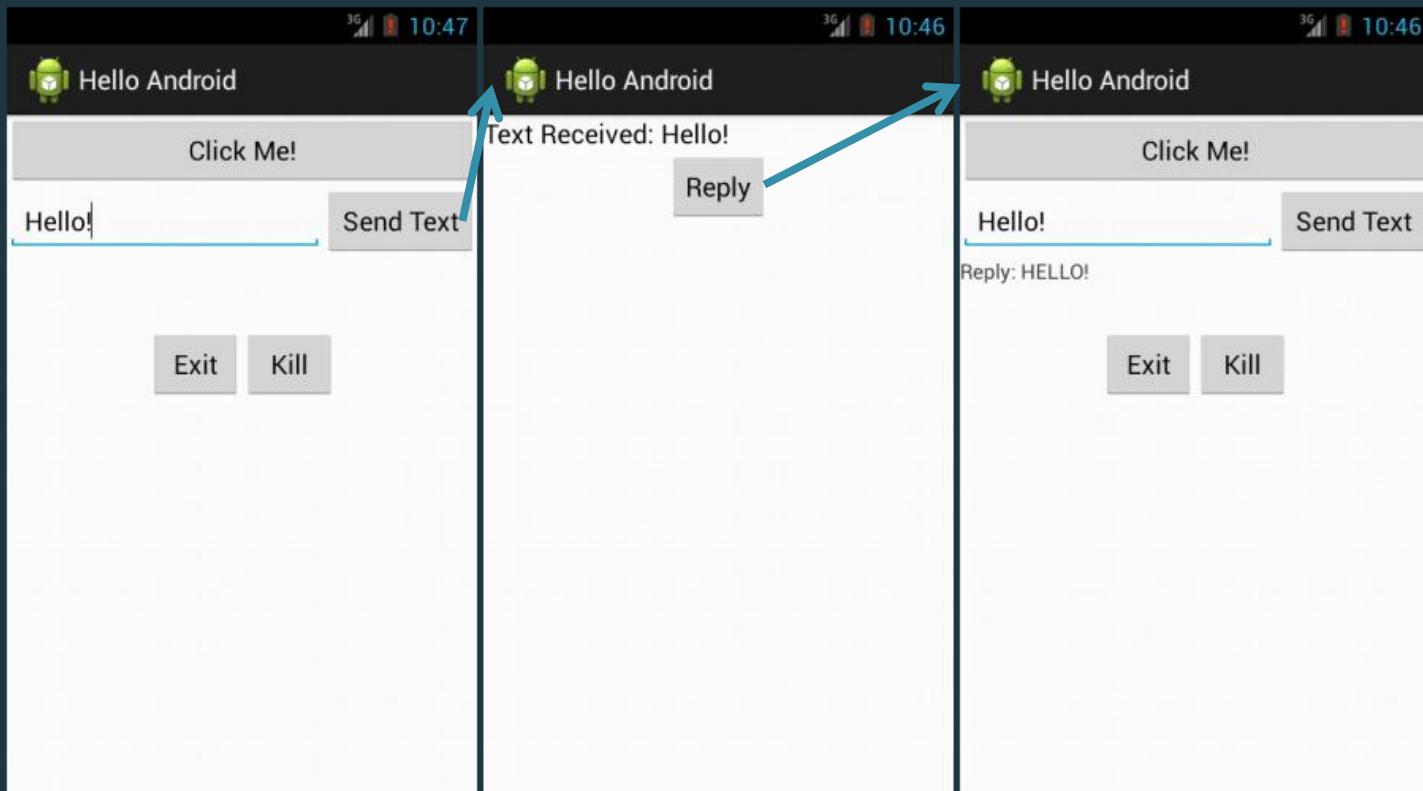
package acm.android.helloandroid;

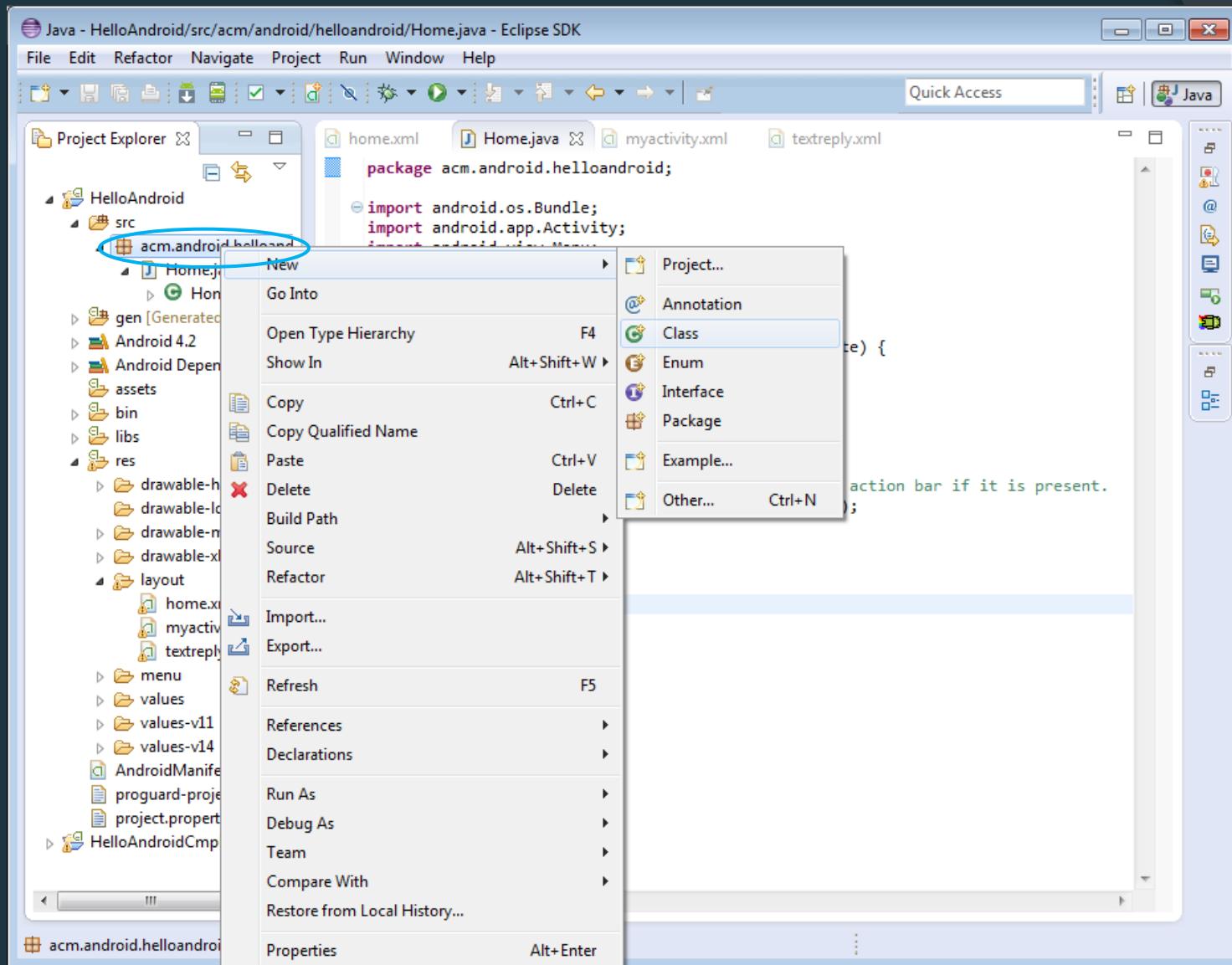
public final class R {
    public static final class attr {
    }
    public static final class drawable {
        public static final int ic_launcher=0x7f020000;
    }
    public static final class id {
        public static final int bexit=0x7f070004;
        public static final int bkill=0x7f070005;
        public static final int blauchact=0x7f070000;
        public static final int bminus=0x7f070006;
        public static final int bplus=0x7f070008;
        public static final int breply=0x7f07000a;
        public static final int bsendtext=0x7f070002;
        public static final int etsend=0x7f070001;
        public static final int menu_settings=0x7f07000b;
        public static final int tvnumber=0x7f070007;
        public static final int tvreply=0x7f070003;
        public static final int tvtext=0x7f070009;
    }
    public static final class layout {
        public static final int home=0x7f030000;
        public static final int myactivity=0x7f030001;
        public static final int textreply=0x7f030002;
    }
    public static final class menu {
        public static final int home=0x7f060000;
    }
    public static final class string {
        public static final int app_name=0x7f040000;
        public static final int hello_world=0x7f040001;
        public static final int menu_settings=0x7f040002;
    }
}
```

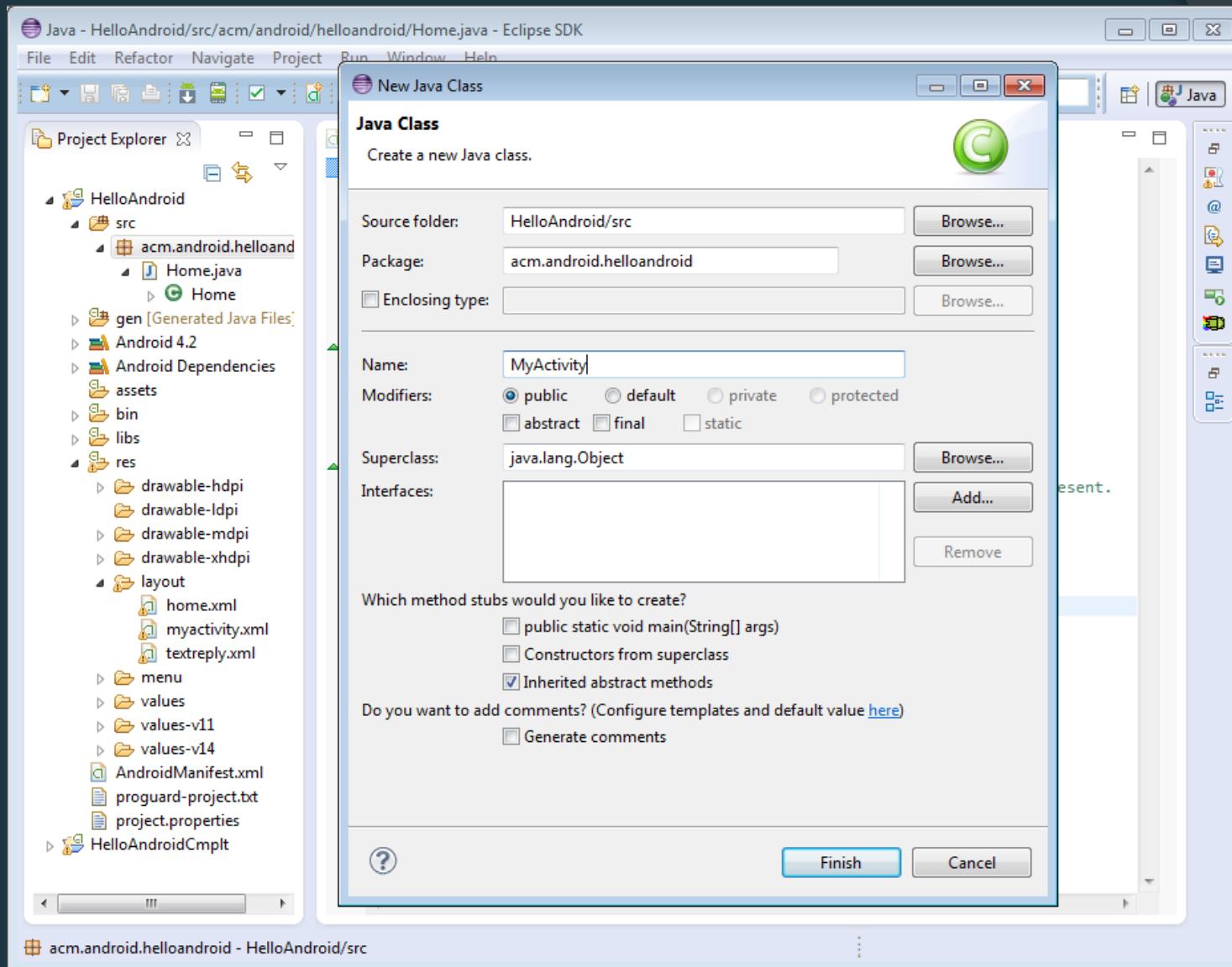
Writable Smart Insert 1:1











Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer

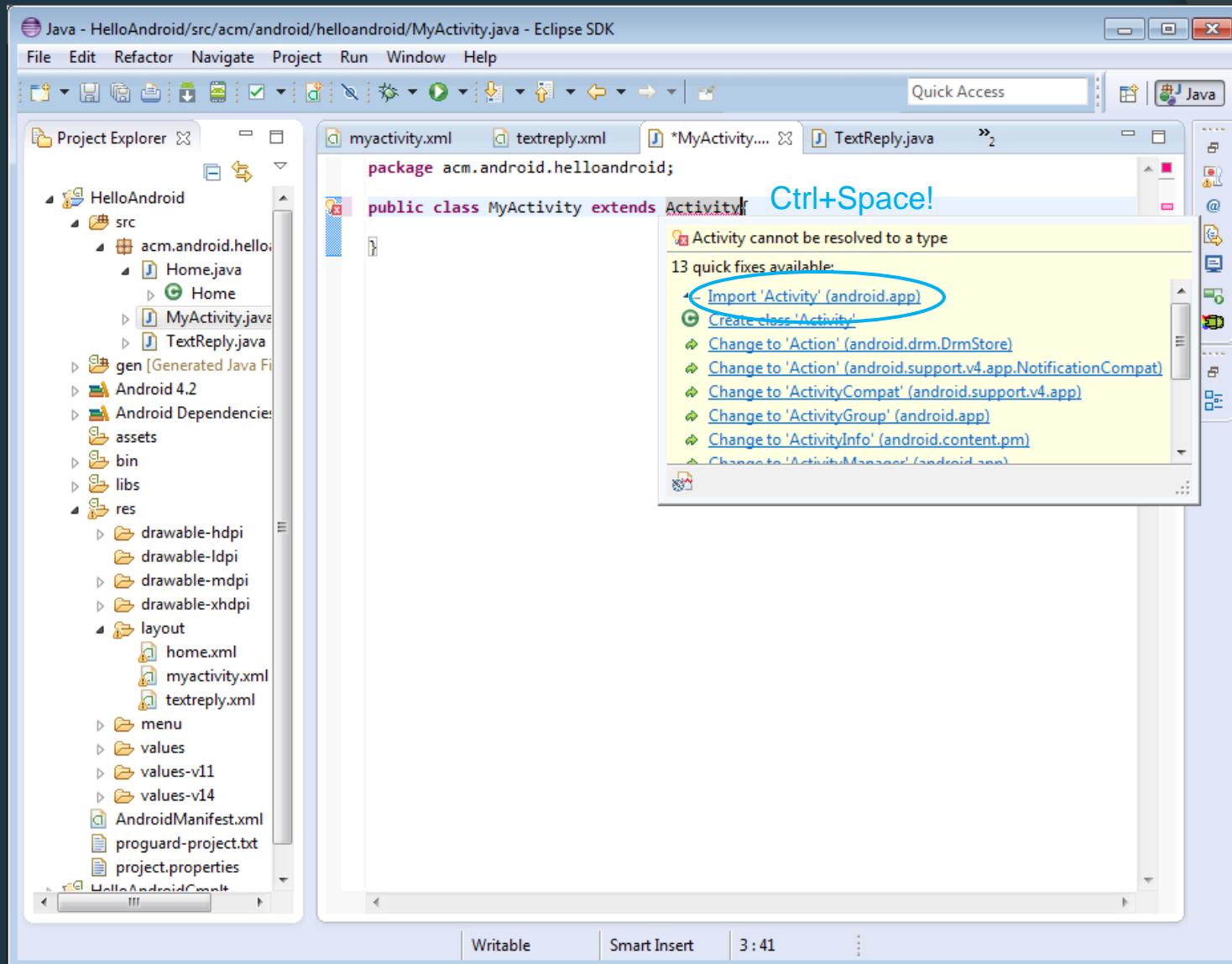
HelloAndroid

- src
  - acm.android.hello
    - Home.java
    - Home
  - MyActivity.java
  - TextReply.java
- gen [Generated Java Files]
- Android 4.2
- Android Dependencies
- assets
- bin
- libs
- res
  - drawable-hdpi
  - drawable-ldpi
  - drawable-mdpi
  - drawable-xhdpi
  - layout
    - home.xml
    - myactivity.xml
    - textreply.xml
  - menu
  - values
  - values-v11
  - values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

myactivity.xml textreply.xml \*MyActivity.... TextReply.java

```
package acm.android.helloandroid;  
public class MyActivity extends Activity{  
}
```

Writable Smart Insert 3 : 41



Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

myactivity.xml textreply.xml \*MyActivity.... TextReply.java

```
package acm.android.helloandroid;

import android.app.Activity;

public class MyActivity extends Activity{
    oncr
}
```

onCreate(Bundle savedInstanceState) : void - Override method in 'Activity'

onCreate(Bundle savedInstanceState) : void - Override method in 'Activity'

onCreateContextMenu(ContextMenu menu, View v, ContextMenuInfo menuInfo) : void - Override

onCreateContextMenu(ContextMenu menu, View v, ContextMenuInfo menuInfo) : void - Override

onCreateDescription() : CharSequence - Override method in 'Activity'

onCreateDescription() : CharSequence - Override method in 'Activity'

onCreateDialog(int id) : Dialog - Override method in 'Activity'

onCreateDialog(int id) : Dialog - Override method in 'Activity'

onCreateDialog(int id, Bundle args) : Dialog - Override method in 'Activity'

onCreateDialog(int id, Bundle args) : Dialog - Override method in 'Activity'

onCreateNavigateUpTaskStack(TaskStackBuilder builder) : void - Override method in 'Activity'

onCreateNavigateUpTaskStack(TaskStackBuilder builder) : void - Override method in 'Activity'

Press 'Ctrl+Space' to show Template Proposals

**protected void onCreate (Bundle savedInstanceState)**

Added in API level 1

Called when the activity is starting. This is where most initialization should go: calling [setContentView \(int\)](#) to inflate the activity's UI, using [findViewById \(int\)](#) to programmatically interact with widgets in the UI, calling [managedQuery \(android.net.Uri, String\[\], String, String\[\], String\)](#) to retrieve cursors for data being displayed, etc.

You can call [finish \(\)](#) from within this function, in which case [onDestroy \(\)](#) will be immediately called without any of the rest of the activity lifecycle ([onStart \(\)](#), [onResume \(\)](#), [onPause \(\)](#), etc) executing.

Derived classes must call through to the super class's implementation of this method. If they do not, an exception will be thrown.

Press 'Tab' from proposal table or click for focus

Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

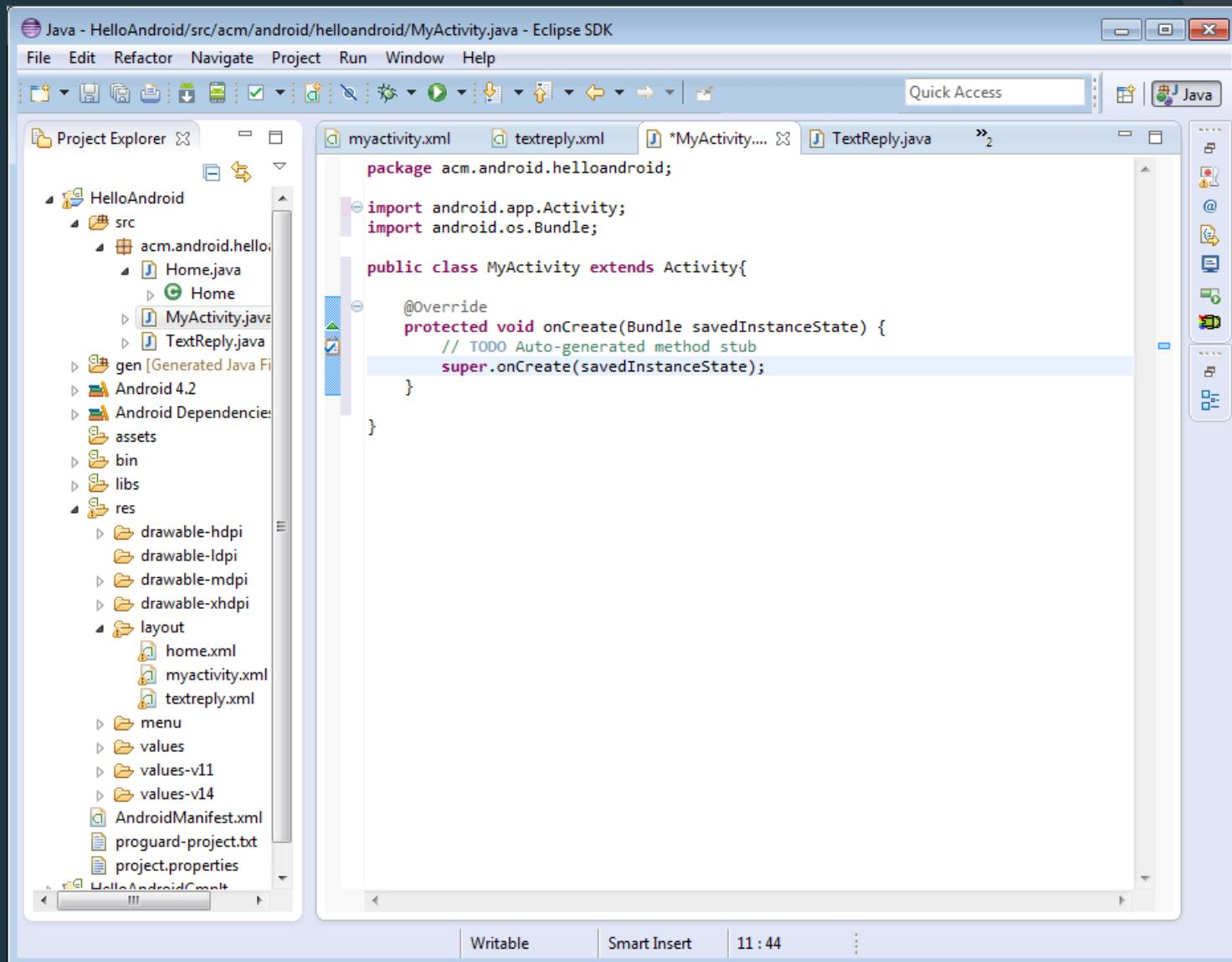
Project Explorer

- HelloAndroid
  - src
    - acm.android.hello
      - Home.java
      - Home
      - MyActivity.java
      - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
      - textreply.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

myactivity.xml textreply.xml \*MyActivity.... TextReply.java

```
package acm.android.helloandroid;  
  
import android.app.Activity;  
import android.os.Bundle;  
  
public class MyActivity extends Activity{  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        // TODO Auto-generated method stub  
        super.onCreate(savedInstanceState);  
    }  
}
```

Writable Smart Insert 11 : 44

A screenshot of the Eclipse IDE interface. The title bar reads "Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK". The menu bar includes File, Edit, Refactor, Navigate, Project, Run, Window, and Help. A toolbar with various icons is above the main workspace. The left side features the "Project Explorer" view, which lists the project structure: HelloAndroid (with src, gen, Android 4.2, Android Dependencies, assets, bin, libs, res), and files like Home.java, MyActivity.java, TextReply.java, and XML layouts. The central workspace shows the Java code for "MyActivity.java". The code defines a class "MyActivity" that extends "Activity". It overrides the "onCreate" method, which contains a call to "super.onCreate(savedInstanceState)". The code editor has syntax highlighting and a status bar at the bottom indicating "Writable" and the time "11 : 44".

Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

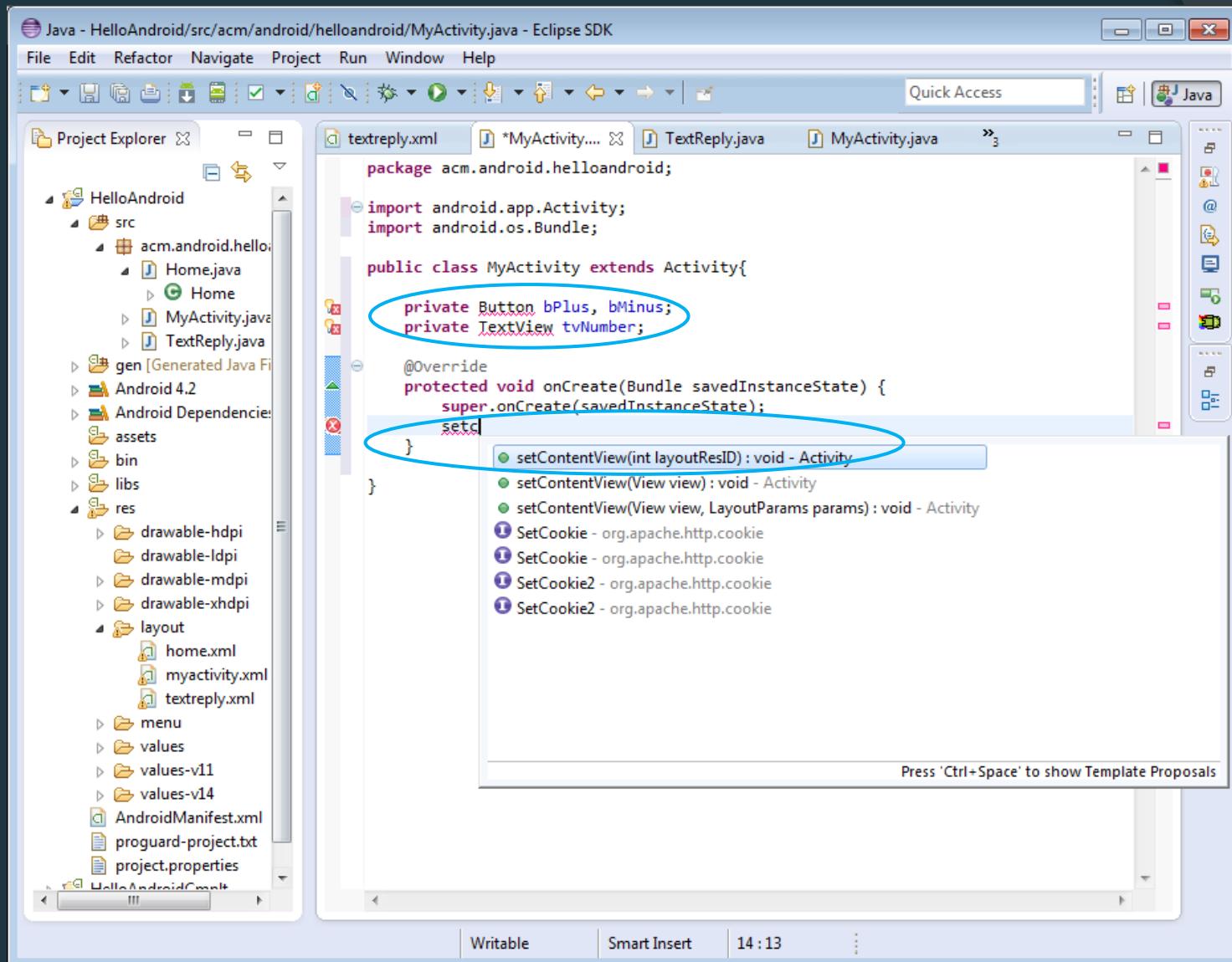
textreply.xml \*MyActivity.... TextReply.java MyActivity.java

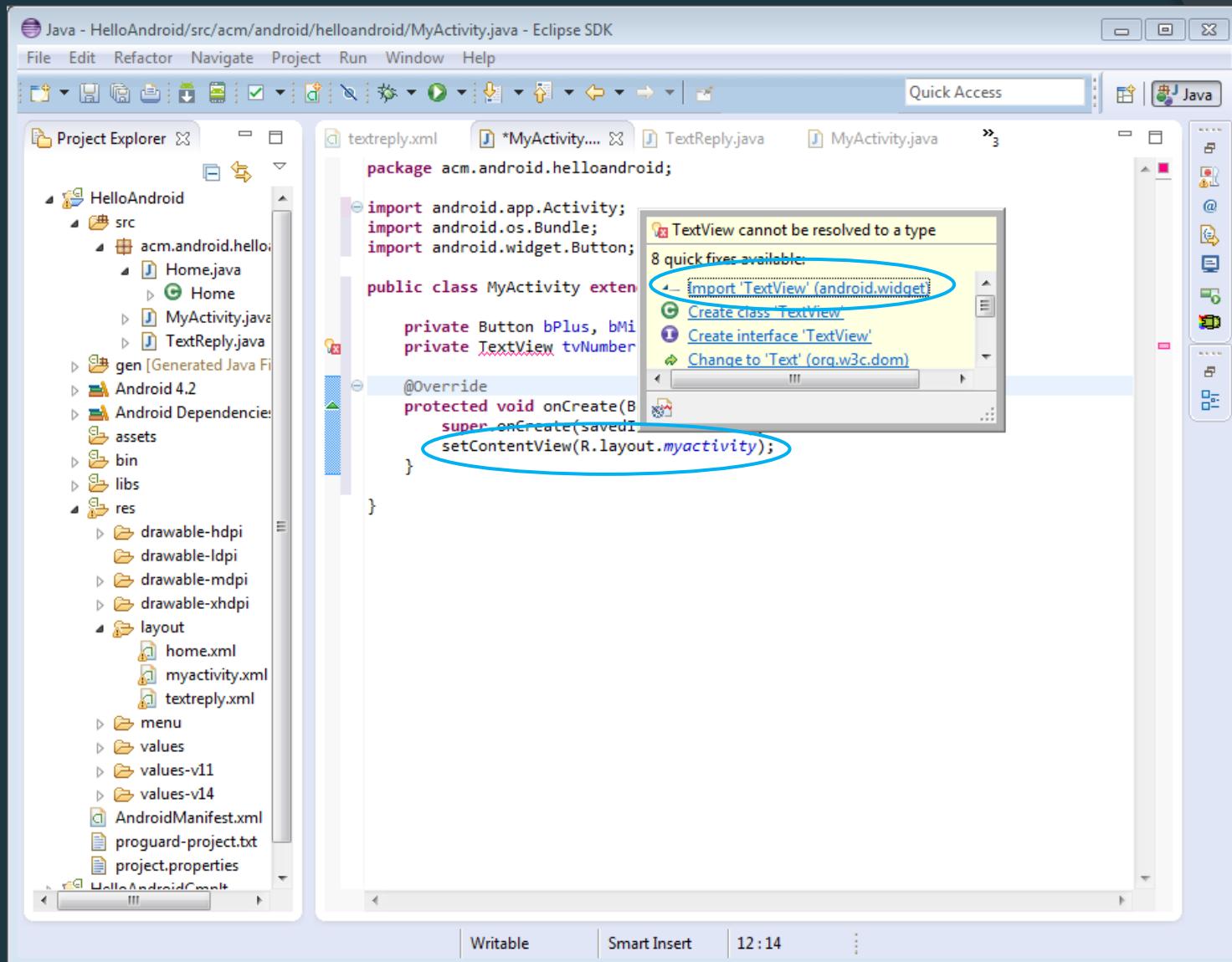
```
package acm.android.helloandroid;  
  
import android.app.Activity;  
import android.os.Bundle;  
  
public class MyActivity extends Activity{  
    private Button bPlus, bMinus;  
    private TextView tvNumber;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.myactivity);  
    }  
}
```

setContentView(int layoutResID) : void - Activity  
setContentView(View view) : void - Activity  
setContentView(View view, LayoutParams params) : void - Activity  
SetCookie - org.apache.http.cookie  
SetCookie2 - org.apache.http.cookie  
SetCookie2 - org.apache.http.cookie  
SetCookie2 - org.apache.http.cookie

Press 'Ctrl+Space' to show Template Proposals

Writable Smart Insert 14 : 13





Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
      - MyActivity.java
      - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
      - textreply.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

myactivity.xml textreply.xml \*MyActivity.... TextReply.java

```
package acm.android.helloandroid;

import android.app.Activity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;

public class MyActivity extends Activity{

    private Button bPlus, bMinus;
    private TextView tvNumber;

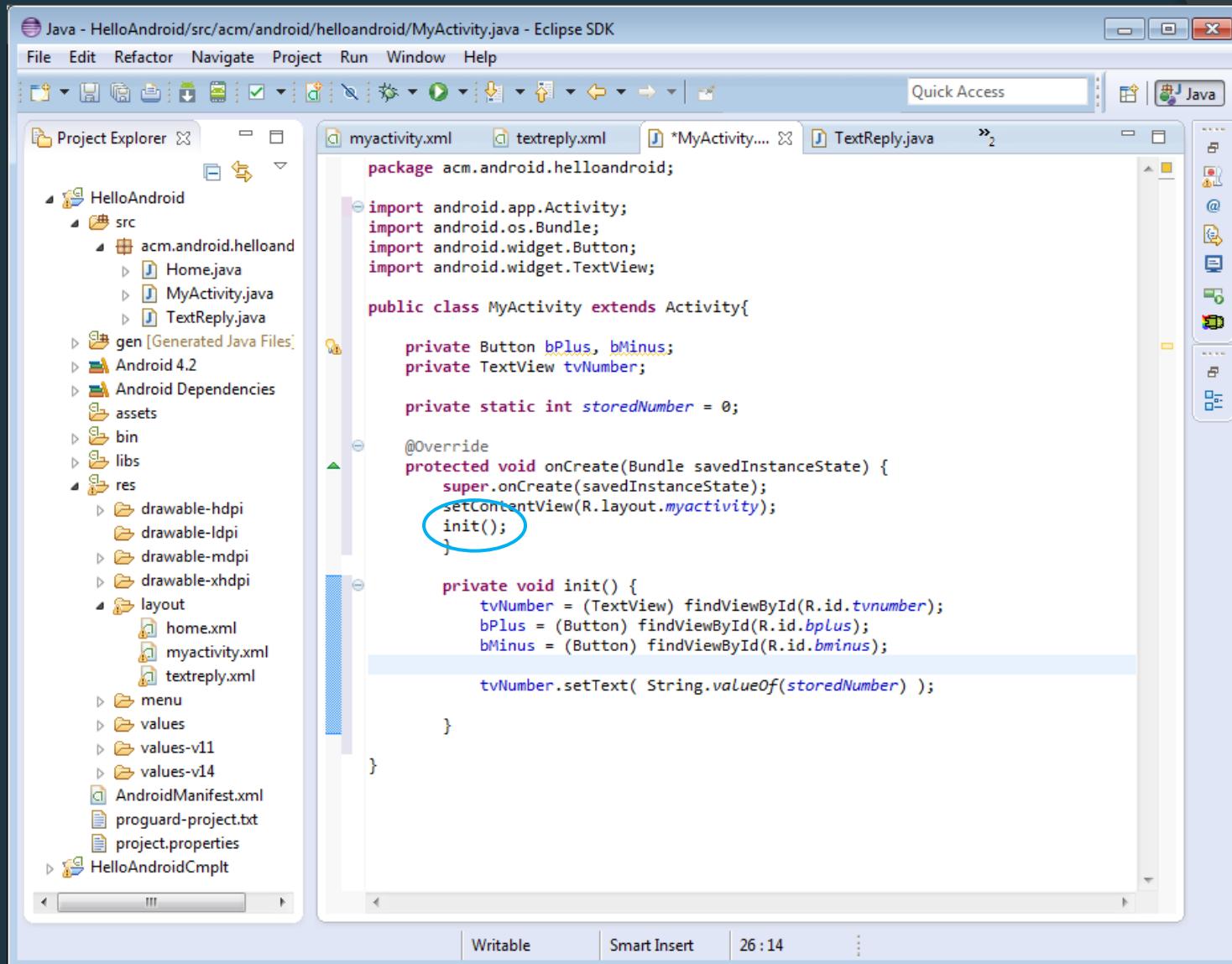
    private static int storedNumber = 0;

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

    private void init() {
        tvNumber = (TextView) findViewById(R.id.tvnumber);
        bPlus = (Button) findViewById(R.id.bplus);
        bMinus = (Button) findViewById(R.id.bminus);

        tvNumber.setText( String.valueOf(storedNumber) );
    }
}
```

Writable Smart Insert 26 : 14



Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
      - MyActivity.java
      - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
      - textreply.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml MyActivity.java TextReply.java MyActivity.java »<sub>3</sub>

```
package acm.android.helloandroid;

import android.app.Activity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;

public class MyActivity extends Activity{

    private Button bPlus, bMinus;
    private TextView tvNumber;

    private static int storedNumber = 0;

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

    private void init() {
        tvNumber = (TextView) findViewById(R.id.tvnumber);
        bPlus = (Button) findViewById(R.id.bplus);
        bMinus = (Button) findViewById(R.id.bminus);

        tvNumber.setText( String.valueOf(storedNumber) );

        bPlus.setOnClickListener();
        bMinus.setOnClickListener();
    }
}
```

Writable Smart Insert 4 : 26

Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer    home.xml \*MyActivity.... TextReply.java MyActivity.java

```
package acm.android.helloandroid;

import android.app.Activity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;

public class MyActivity extends Activity{

    private Button bPlus, bMinus;
    private TextView tvNumber;

    private static int storedNumber = 0;

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

    private void init()
    {
        tvNumber = (TextView) findViewById(R.id.textView1);
        bPlus = (Button) findViewById(R.id.button1);
        bMinus = (Button) findViewById(R.id.button2);

        tvNumber.setText(" " + storedNumber);
        bPlus.setOnClickListener(new View.OnClickListener());
        bMinus.setOnClickListener();
    }
}
```

Quick Access Java

View.OnClickListener() Anonymous Inner Type - android.view

View.OnAttachStateChangeListener() Anonymous Inner Type -

View.OnCreateContextMenuListener() Anonymous Inner Type -

View.OnDragListener() Anonymous Inner Type - android.view

View.OnFocusChangeListener() Anonymous Inner Type - android.view

View.OnGenericMotionListener() Anonymous Inner Type - android.view

View.OnHoverListener() Anonymous Inner Type - android.view

View.OnKeyListener() Anonymous Inner Type - android.view

View.OnLayoutChangeListener() Anonymous Inner Type - android.view

View.OnLongClickListener() Anonymous Inner Type - android.view

View.OnSystemUiVisibilityChangeListener() Anonymous Inner Type - android.view

View.OnTouchListener() Anonymous Inner Type - android.view

Press 'Ctrl+Space' to show Template Proposals

Writable Smart Insert 29 : 48

The screenshot shows the Eclipse IDE interface with the Java editor open to the file 'MyActivity.java'. The code defines a class 'MyActivity' that extends 'Activity'. It contains fields for a TextView and two Buttons, and a private static variable 'storedNumber'. The 'onCreate' method sets the content view to 'R.layout.myactivity' and calls the 'init' method. The 'init' method initializes the views and sets their listeners. A tooltip is displayed over the 'setOnClickListener' call on the 'bPlus' button, listing various anonymous inner type options such as 'View.OnClickListener()', 'View.OnAttachStateChangeListener()', etc. A blue arrow points from the tooltip to the 'OnClickListener' part of the code. Another blue circle highlights the 'new View.OnClickListener()' part of the code where the tooltip is shown.

Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
      - MyActivity.java
      - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
      - home.xml
      - myactivity.xml
      - textreply.xml
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

home.xml MyActivity.java TextReply.java MyActivity.java

```
private static int storedNumber = 0;

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

private void init() {
    tvNumber = (TextView) findViewById(R.id.tvnumber);
    bPlus = (Button) findViewById(R.id.bplus);
    bMinus = (Button) findViewById(R.id.bminus);

    tvNumber.setText( String.valueOf(storedNumber) );
}

bPlus.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bMinus.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});
}
```

Writable Smart Insert 34 : 55

Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer

textreply.xml \*MyActivity.... TextReply.java MyActivity.java

```
super.onCreate(savedInstanceState);
setContentView(R.layout.myactivity);
init();
}

private void init() {
    tvNumber = (TextView) findViewById(R.id.tvnumber);
    bPlus = (Button) findViewById(R.id.bplus);
    bMinus = (Button) findViewById(R.id.bminus);

    tvNumber.setText( String.valueOf(storedNumber) );

    bPlus.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View v) {
            String sNumber = tvNumber.getText().toString();
            int number = Integer.parseInt( sNumber );
            tvNumber.setText( String.valueOf(number + 1) );
            storedNumber += 1;
        }
    });

    bMinus.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View v) {
            String sNumber = tvNumber.getText().toString();
            int number = Integer.parseInt( sNumber );
            tvNumber.setText( String.valueOf(number - 1) );
            storedNumber -= 1;
        }
    });
}
```

Copy Paste από Source Code

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmpl

- src
  - acm.android.hello;
    - Home.java
    - MyActivity.java
    - TextReply.java
- gen [Generated Java Files]
- Android 4.2
- Android Dependencies
- assets
- bin
- libs
- res
- AndroidManifest.xml
- proguard-project.txt
- project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
package acm.android.helloandroid;

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

public class Home extends Activity {

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

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

Writable Smart Insert 28 : 5

The screenshot shows the Eclipse IDE interface with the title "Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK". The left pane displays the "Project Explorer" with the project structure. A file named "Home.java" under the package "acm.android.hello" is selected and highlighted with a blue circle. The right pane shows the code editor with the Java code for the "Home" activity. The code includes imports for android.os.Bundle, android.app.Activity, and android.view.Menu. It overrides the onCreate method to set the content view to R.layout.home and overrides the onCreateOptionsMenu method to inflate the menu from R.menu.home.

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmpl

- src
  - acm.android.hello;
    - Home.java
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

home.xml Home.java myactivity.xml textreply.xml Home.java

```
import android.app.Activity;
import android.view.Menu;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class Home extends Activity {

    private Button bLaunchAct, bSendText, bExit, bKill;
    private EditText etSend;
    private TextView tvReply;

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

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

The value of the field Home.bKill is not used  
3 quick fixes available:

- Remove 'bKill', keep assignments with side effects
- Fix 6 problems of same category in file
- Create getter and setter for 'bKill'...
- Add @SuppressWarnings 'unused' to 'bLaunchAct'

Press 'F2' for focus

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - AndroidManifest.xml
    - proguard-project.txt
    - project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
import android.app.Activity;
import android.view.Menu;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class Home extends Activity {

    private Button bLaunchAct, bSendText, bExit, bKill;
    private EditText etSend;
    private TextView tvReply;

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

    private void init() {
        bLaunchAct = (Button) findViewById(R.id.blaunchact);
        bSendText = (Button) findViewById(R.id.bsendtext);
        bExit = (Button) findViewById(R.id.bexit);
        bKill = (Button) findViewById(R.id.bkill);

        etSend = (EditText) findViewById(R.id.etsend);
        tvReply = (TextView) findViewById(R.id.tvreply);
    }
}
```

Writable Smart Insert 30 : 57

```
import android.app.Activity;
import android.view.Menu;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class Home extends Activity {

    private Button bLaunchAct, bSendText, bExit, bKill;
    private EditText etSend;
    private TextView tvReply;

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

    private void init() {
        bLaunchAct = (Button) findViewById(R.id.blaunchact);
        bSendText = (Button) findViewById(R.id.bsendtext);
        bExit = (Button) findViewById(R.id.bexit);
        bKill = (Button) findViewById(R.id.bkill);

        etSend = (EditText) findViewById(R.id.etsend);
        tvReply = (TextView) findViewById(R.id.tvreply);
    }
}
```

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
etSend = (EditText) findViewById(R.id.etsend);
tvReply = (TextView) findViewById(R.id.tvreply);

tvReply.setVisibility(View.INVISIBLE);

bLaunchAct.setOnClickListener(new View.OnClickListener() { X4

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bSendText.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bExit.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bKill.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});
```

View.OnClickListener() Anonymous Inner Type - android.view  
View.OnAttachStateChangeListener() Anonymous Inner Type -  
View.OnCreateContextMenuListener() Anonymous Inner Type -  
View.OnDragListener() Anonymous Inner Type - android.view  
View.OnFocusChangeListener() Anonymous Inner Type - android.view  
View.OnGenericMotionListener() Anonymous Inner Type - android.view  
View.OnHoverListener() Anonymous Inner Type - android.view  
View.OnKeyListener() Anonymous Inner Type - android.view  
View.OnLayoutChangeListener() Anonymous Inner Type - android.view  
View.OnLongClickListener() Anonymous Inner Type - android.view  
View.OnSystemUiVisibilityChangeListener() Anonymous Inner Type - android.view  
View.OnTouchListener() Anonymous Inner Type - android.view

Press 'Ctrl+Space' to show Template Proposals

Writable Smart Insert 63 : 45

The screenshot shows the Eclipse IDE interface with the Java perspective selected. The title bar indicates the current file is "Home.java" located at "HelloAndroid/src/acm/android/helloandroid/Home.java". The menu bar includes File, Edit, Refactor, Navigate, Project, Run, Window, and Help. The toolbar contains standard icons for file operations like Open, Save, and Run. The Project Explorer view on the left lists the project structure, including resources like drawable folders, layout files (home.xml, myactivity.xml, textreply.xml), and Java files (Home.java, MyActivity.java, TextReply.java). The AndroidManifest.xml and proguard-project.txt files are also visible. The main editor area displays the Java code for "Home.java". Several lines of code are highlighted with blue circles and a large blue oval, specifically: `tvReply.setVisibility(View.INVISIBLE);` and the entire `setOnClickListener` block for `bLaunchAct`. A tooltip for `View.OnClickListener()` is open, listing various inner class types such as `View.OnAttachStateChangeListener()`, `View.OnCreateContextMenuListener()`, etc. The status bar at the bottom shows "Writable", "Smart Insert", and the line number "63 : 45".

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
etSend = (EditText) findViewById(R.id.etsend);
tvReply = (TextView) findViewById(R.id.tvreply);

tvReply.setVisibility(View.INVISIBLE);

bLaunchAct.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        Intent i = new Intent(Home.this, MyActivity.class);
        startActivity(i);
    }
});

bSendText.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bExit.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bKill.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});
```

Writable Smart Insert 41 : 34

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14

AndroidManifest.xml  
proguard-project.txt  
project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - AndroidManifest.xml
    - proguard-project.txt
    - project.properties

home.xml

```
etSend = (EditText) findViewById(R.id.etSend);
tvReply = (TextView) findViewById(R.id.tvReply);

tvReply.setVisibility(View.INVISIBLE);

bLaunchAct.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        Intent i = new Intent(Home.this, MyActivity.class);
        startActivity(i);
    }
});

bSendText.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        Intent i = new Intent(Home.this, TextReply.class);
        i.putExtra("text", etSend.getText().toString());
        startActivityForResult(i, 1);
    }
});

bExit.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        // TODO Auto-generated method stub
    }
});

bKill.setOnClickListener(new View.OnClickListener() {

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

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
Intent i = new Intent(Home.this, TextReply.class);
i.putExtra("text", etSend.getText().toString());
startActivityForResult(i, 1);
});

bExit.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        finish();
    }
});

bKill.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        System.exit(0);
    }
});
}

@Override
```

Writable Smart Insert 67 : 32

The screenshot shows the Eclipse IDE interface with the Java perspective selected. The title bar indicates the current file is Home.java in the HelloAndroid project. The menu bar includes File, Edit, Refactor, Navigate, Project, Run, Window, and Help. The toolbar contains various icons for file operations like Open, Save, and Run. The Quick Access bar has a Java icon. The left side features the Project Explorer view, which lists the project structure including drawable resources, layout XML files (home.xml, myactivity.xml, textreply.xml), menu resources, values resources (v11, v14), and configuration files (AndroidManifest.xml, proguard-project.txt, project.properties). Below the Project Explorer is the HelloAndroidCmplt node, which contains the source code. The central workspace displays the Java code for Home.java. The code defines three buttons: bExit, bKill, and bSend. The bExit button's onClick listener calls finish(). The bKill button's onClick listener calls System.exit(0). The bSend button's onClick listener creates an Intent to start the TextReply activity and sends the text from the EditText etSend. The code also includes an overridden onClick method for the entire class. The status bar at the bottom shows 'Writable' and 'Smart Insert' modes, along with the line number 67 : 32.

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
Intent i = new Intent(Home.this, TextReply.class);
i.putExtra("text", etSend.getText().toString());
startActivityForResult(i, 1);
});

bExit.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        finish();
    }
});

bKill.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        System.exit(0);
    }
});

onactivi
onActivityResult(int requestCode, int resultCode, Intent data):
```

protected void onActivityResult (int requestCode, int resultCode, Intent data)  
Added in API level 1

Called when an activity you launched exits, giving you the requestCode you started it with, the resultCode it returned, and any additional data from it. The resultCode will be RESULT\_CANCELED if the activity explicitly returned that, didn't return a result, or crashed during its operation.

You will receive this call immediately before onRecreate is called if the activity is re-starting.

Press 'Ctrl+Space' to show Template Proposals

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties

home.xml \*Home.java myactivity.xml textreply.xml Home.java

```
public void onClick(View v) {
    finish();
};

bKill.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v) {
        System.exit(0);
    }
};

@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    if (resultCode == 1) {
        // Update Reply TextView content
    } else {
        // Inform user about error
    }
    super.onActivityResult(requestCode, resultCode, data);
}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
```

Java - HelloAndroid/src/acm/android/helloandroid/Home.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Quick Access Java

Project Explorer

- drawable-mdpi
- drawable-xhdpi
- layout
  - home.xml
  - myactivity.xml
  - textreply.xml
- menu
- values
- values-v11
- values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

HelloAndroidCmplt

- src
  - acm.android.hello;
    - Home.java
    - Home
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - AndroidManifest.xml
    - proguard-project.txt
    - project.properties

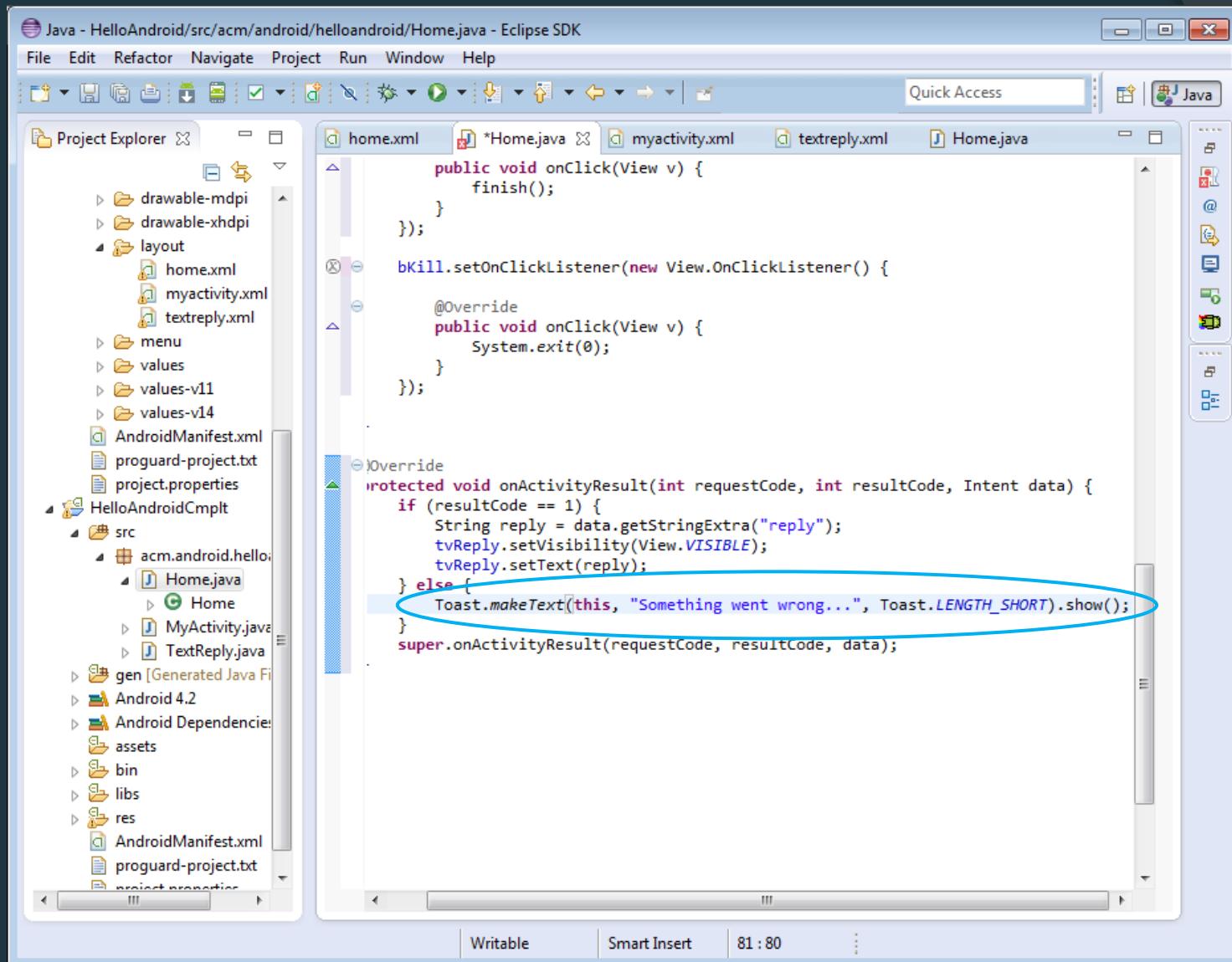
home.xml \*Home.java myactivity.xml textreply.xml Home.java

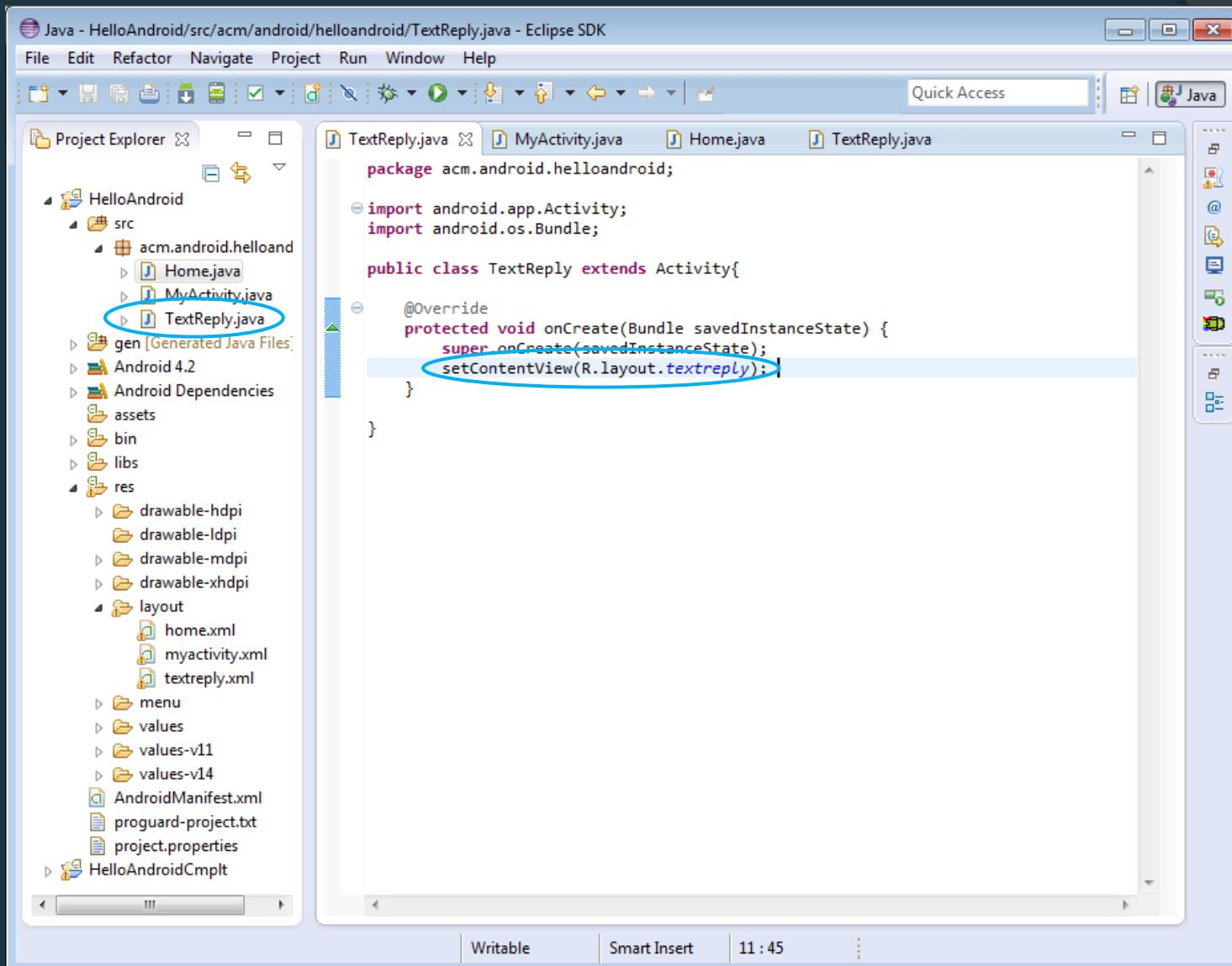
```
public void onClick(View v) {
    finish();
};

bKill.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        System.exit(0);
    }
});

@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data) {
    if (resultCode == 1) {
        String reply = data.getStringExtra("reply");
        tvReply.setVisibility(View.VISIBLE);
        tvReply.setText(reply);
    } else {
        Toast.makeText(this, "Something went wrong...", Toast.LENGTH_SHORT).show();
    }
    super.onActivityResult(requestCode, resultCode, data);
}
```

Writable Smart Insert 81 : 80





Java - HelloAndroid/src/acm/android/helloandroid/TextReply.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer    \*TextReply.java    MyActivity.java    Home.java    TextReply.java

```
package acm.android.helloandroid;

import android.app.Activity;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;

public class TextReply extends Activity{

    private Button bReply;
    private TextView tvText;
    private String text;

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

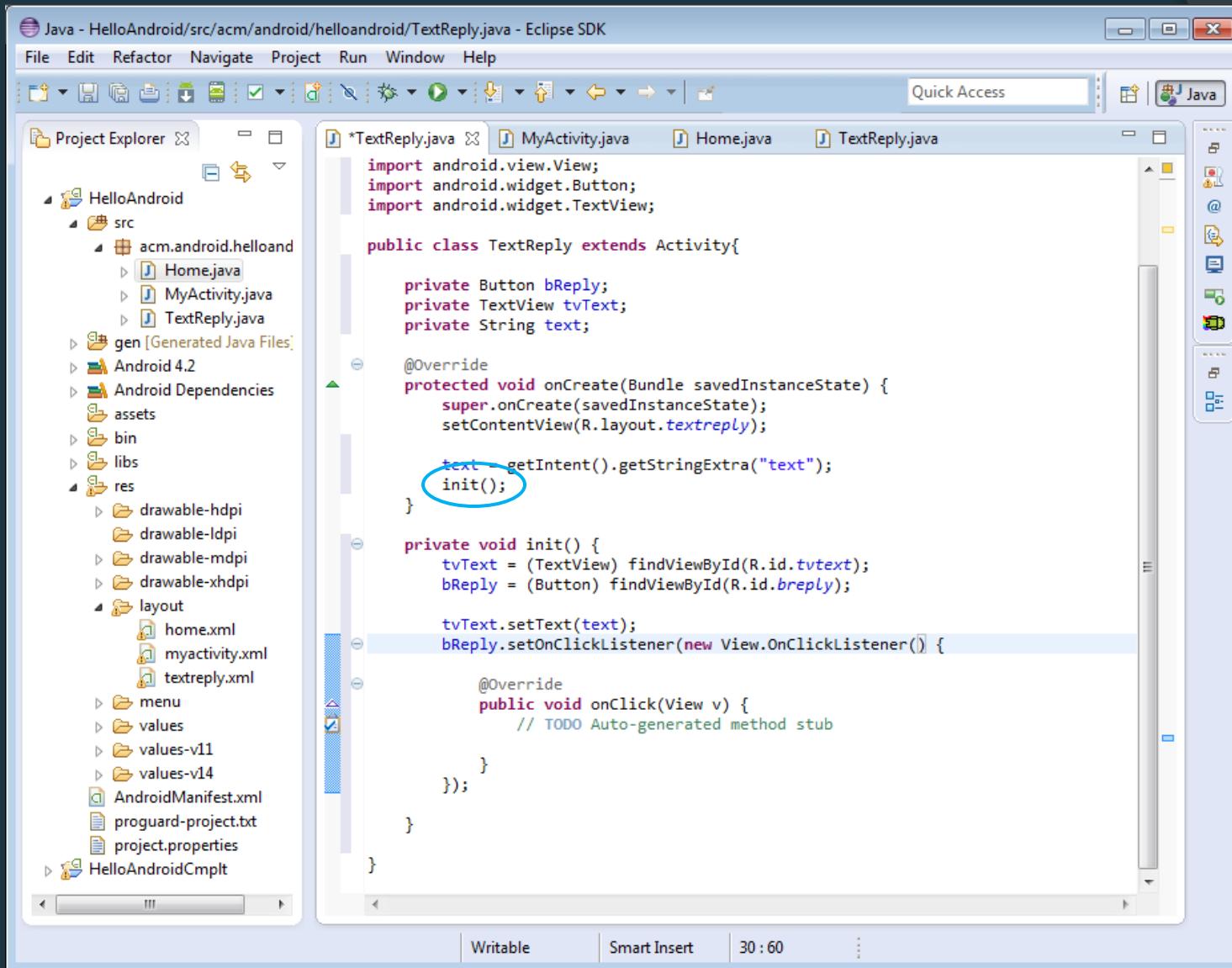
        text = getIntent().getStringExtra("text");
    }
}
```

Quick Access

Java

Writable Smart Insert 19 : 51

The screenshot shows the Eclipse IDE interface with the Java perspective selected. The title bar indicates the current file is 'TextReply.java' located at 'HelloAndroid/src/acm/android/helloandroid/'. The menu bar includes File, Edit, Refactor, Navigate, Project, Run, Window, and Help. The toolbar contains various icons for file operations like Open, Save, and Run. The 'Project Explorer' view on the left shows the project structure for 'HelloAndroid', including the 'src' folder containing 'acm.android.helloandroid' package with files 'Home.java', 'MyActivity.java', and 'TextReply.java'. Other project components like 'gen', 'Android 4.2', 'Android Dependencies', and resource folders 'assets', 'bin', 'libs', and 'res' are also listed. The 'TextReply.java' editor view on the right displays the Java code. Two specific lines of code are circled with blue ovals: 'private Button bReply;' and 'text = getIntent().getStringExtra("text");'. The status bar at the bottom shows 'Writable', 'Smart Insert', and the time '19 : 51'.



Java - HelloAndroid/src/acm/android/helloandroid/TextReply.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer    \*TextReply.java    MyActivity.java    Home.java    TextReply.java

```
public class TextReply extends Activity{  
    private Button bReply;  
    private TextView tvText;  
    private String text;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.textreply);  
  
        text = getIntent().getStringExtra("text");  
        init();  
    }  
  
    private void init() {  
        tvText = (TextView) findViewById(R.id.tvtext);  
        bReply = (Button) findViewById(R.id.breply);  
  
        tvText.setText(text);  
        bReply.setOnClickListener(new View.OnClickListener() {  
  
            @Override  
            public void onClick(View v) {  
                Intent data = new Intent();  
                // do something with the text  
                // return some new text in "data" intent  
                finish();  
            }  
        });  
    }  
}
```

Copy Paste από Source Code

Java - HelloAndroid/src/acm/android/helloandroid/TextReply.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer    \*TextReply.java    MyActivity.java    Home.java    TextReply.java

```
private TextView tvText;
private String text;

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

    text = getIntent().getStringExtra("text");
    init();
}

private void init() {
    tvText = (TextView) findViewById(R.id.tvtext);
    bReply = (Button) findViewById(R.id.breply);

    tvText.setText(text);
    bReply.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View v) {
            Intent data = new Intent();
            if (text.equals("hi")) {
                // return Hello!
            } else if(text.equals("how are you?")) {
                // return Fine thanks!
            } else if(!text.equals("")) {
                // return all caps
            } else {
                // return error
            }
            finish();
        }
    });
}
```

Writable Smart Insert 42 : 36

Java - HelloAndroid/src/acm/android/helloandroid/TextReply.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer    \*TextReply.java    MyActivity.java    Home.java    TextReply.java

```
private TextView tvText;
private String text;

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

    text = getIntent().getStringExtra("text");
    init();
}

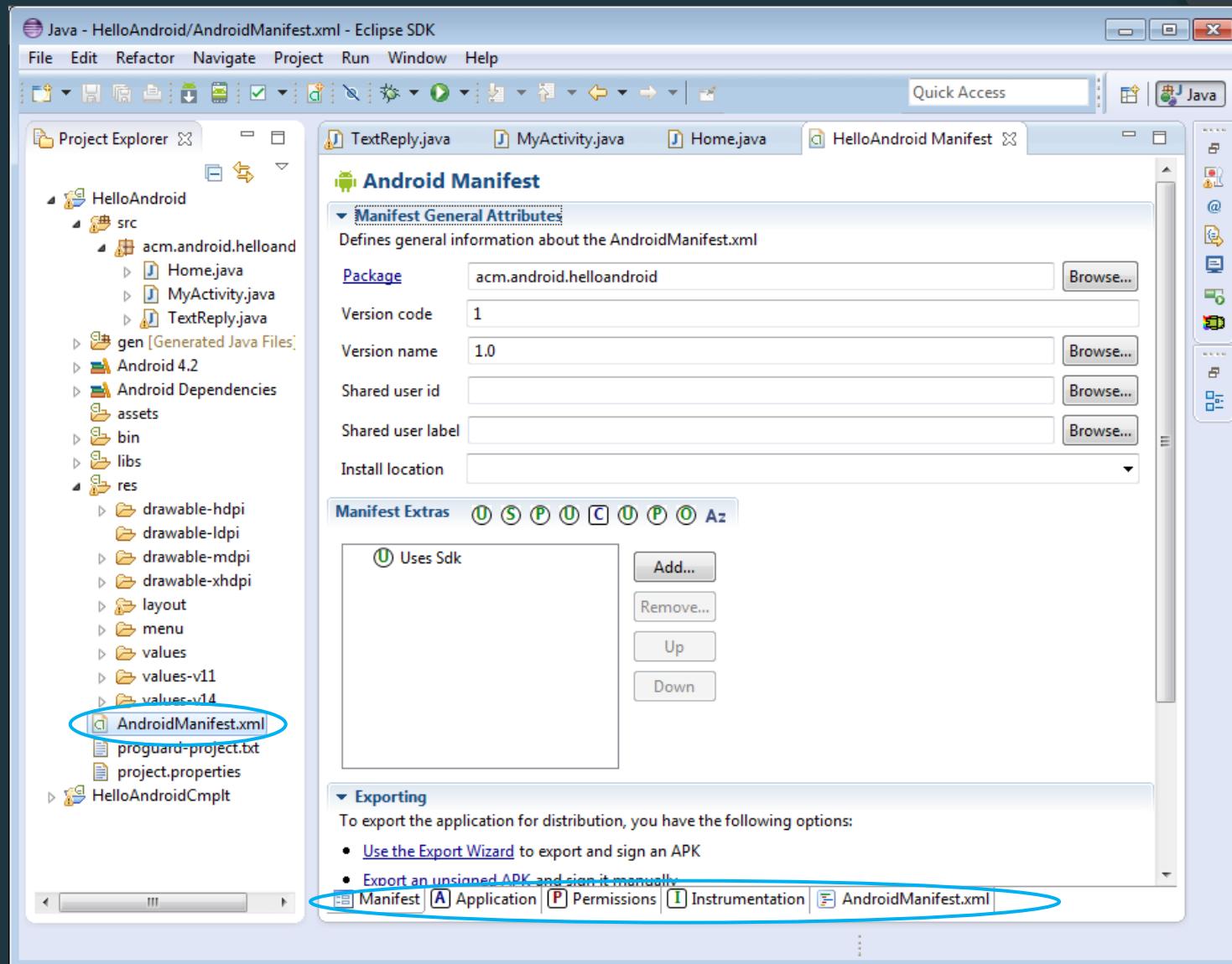
private void init() {
    tvText = (TextView) findViewById(R.id.tvtext);
    bReply = (Button) findViewById(R.id.breply);

    tvText.setText(text);
    bReply.setOnClickListener(new View.OnClickListener() {

        @Override
        public void onClick(View v) {
            Intent data = new Intent();
            if (text.equals("hi")) {
                data.putExtra("reply", "Reply: Hello!");
                setResult(1, data);
            } else if(text.equals("how are you?")) {
                data.putExtra("reply", "Reply: Fine thanks!");
                setResult(1, data);
            } else if(!text.equals("")) {
                data.putExtra("reply", "Reply: " + text.toUpperCase());
                setResult(1, data);
            } else {
                setResult(0);
            }
            finish();
        }
    });
}
```

Copy Paste από Source Code

Writable Smart Insert 45 : 34



Java - HelloAndroid/AndroidManifest.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
      - MyActivity.java
      - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
    - assets
    - bin
    - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

TextReply.java MyActivity.java Home.java HelloAndroid Manifest

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="acm.android.helloandroid"
    android:versionCode="1"
    android:versionName="1.0" >

    <uses-sdk
        android:minSdkVersion="8"
        android:targetSdkVersion="17" />

    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name"
        android:theme="@style/AppTheme" >
        <activity
            android:name="acm.android.helloandroid.Home"
            android:label="@string/app_name" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Manifest Application Permissions Instrumentation **AndroidManifest.xml**

Java - HelloAndroid/AndroidManifest.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

HelloAndroid

- src
  - acm.android.helloand
    - Home.java
    - MyActivity.java
    - TextReply.java
- gen [Generated Java Files]
- Android 4.2
- Android Dependencies
- assets
- bin
- libs
- res
  - drawable-hdpi
  - drawable-ldpi
  - drawable-mdpi
  - drawable-xhdpi
  - layout
  - menu
  - values
  - values-v11
  - values-v14
- AndroidManifest.xml
- proguard-project.txt
- project.properties

TextReply.java MyActivity.java Home.java \*HelloAndroid Manifest

```
package acm.android.helloandroid;
android:versionCode="1"
android:versionName="1.0" >

<uses-sdk
    android:minSdkVersion="8"
    android:targetSdkVersion="17" />

<application
    android:allowBackup="true"
    android:icon="@drawable/ic_launcher"
    android:label="@string/app_name"
    android:theme="@style/AppTheme" >
    <activity
        android:name="acm.android.helloandroid.Home"
        android:label="@string/app_name" >
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />
            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
    <activity
        android:name="acm.android.helloandroid.MyActivity"
        android:label="@string/app_name" >
    </activity>
    <activity
        android:name="acm.android.helloandroid.TextReply"
        android:label="@string/app_name" >
    </activity>
</application>
</manifest>
```

Manifest Application Permissions Instrumentation AndroidManifest.xml

manifest/application/activity/android:name

The screenshot shows the Eclipse IDE interface with the project 'HelloAndroid' open. The 'AndroidManifest.xml' file is being edited. Two specific entries in the XML code are circled with blue lines: the 'MyActivity' entry and the 'TextReply' entry. Both entries define an activity with the name 'acm.android.helloandroid.' followed by their respective class names ('MyActivity' and 'TextReply') and set the label to '@string/app\_name'. The 'MyActivity' entry is located within the main 'application' tag, while the 'TextReply' entry is located at the end of the 'manifest' tag, immediately after the closing 'application' tag.

Java - HelloAndroid/AndroidManifest.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
      - Home.java
      - MyActivity.java
      - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

TextReply.java MyActivity.java Home.java \*HelloAndroid Manifest

```
package acm.android.helloandroid;
android:versionCode="1"
android:versionName="1.0" >

<uses-sdk
    android:minSdkVersion="8"
    android:targetSdkVersion="17" />

<application
    android:allowBackup="true"
    android:icon="@drawable/ic_launcher"
    android:label="@string/app_name"
    android:theme="@style/AppTheme" >
    <activity
        android:name="acm.android.helloandroid.Home"
        android:label="@string/app_name" >
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />
            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
    <activity
        android:name="acm.android.helloandroid.MyActivity"
        android:label="@string/app_name"
        android:>
        </activity>
    <activity
        android:>
        </activity>
    </application>
```

manifest/application/activity/android: <@ android:description  
@ android:icon  
@ android:logo  
@ android:launchMode  
@ android:screenOrientation  
@ android:configChanges  
@ android:permission  
@ android:multiprocess  
@ android:process  
@ android:taskAffinity  
@ android:allowTaskReparenting

Java - HelloAndroid/AndroidManifest.xml - Eclipse SDK

File Edit Refactor Source Navigate Project Run Window Help

Quick Access Java

Project Explorer

TextReply.java MyActivity.java Home.java \*HelloAndroid Manifest

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    android:versionName="1.0" >

    <uses-sdk
        android:minSdkVersion="8"
        android:targetSdkVersion="17" />

    <application
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"
        android:label="@string/app_name"
        android:theme="@style/AppTheme" >
        <activity
            android:name="acm.android.helloandroid.Home"
            android:label="@string/app_name" >
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>

        <activity
            android:name="acm.android.helloandroid.MyActivity"
            android:label="@string/app_name"
            android:screenOrientation="unspecified" >
        </activity>

        <activity
            android:name="acm.android.helloandroid.TextReply"
            android:label="@string/app_name" >
        </activity>
    </application>
</manifest>
```

Manifest Application Permissions Instructions

res drawable-hdpi drawable-ldpi drawable-mdpi drawable-xhdpi layout menu values values-v11 values-v14 AndroidManifest.xml proguard-project.txt project.properties

HelloAndroidCmplt src acm.android.helloandroid Home.java MyActivity.java TextReply.java gen [Generated Java Files] Android 4.2 Android Dependencies assets bin libs res AndroidManifest.xml proguard-project.txt project.properties

Manifest Application Permissions Instructions

① unspecified  
② landscape  
③ portrait  
④ user  
⑤ behind  
⑥ sensor  
⑦ nosensor  
⑧ sensorLandscape  
⑨ sensorPortrait  
⑩ reverseLandscape  
⑪ reversePortrait  
⑫ forceLandscape  
⑬ forcePortrait

Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer    Android Virtual Device Manager    MyActivity.java    Home.java    HelloAndroid Manifest

Quick Access

Java

HelloAndroid

src

- acm.android.helloand
- Home.java
- MyActivity.java (selected)
- TextReply.java

gen [Generated Java Files]

Android 4.2

Android Dependencies

- assets
- bin
- libs
- res

  - drawable-hdpi
  - drawable-ldpi
  - drawable-mdpi
  - drawable-xhdpi
  - layout
  - menu
  - values
  - values-v11
  - values-v14

AndroidManifest.xml

proguard-project.txt

project.properties

HelloAndroidCmplt

```
package acm.android.helloandroid;

import android.app.Activity;

public class MyActivity extends Activity{

    private Button bPlus, bMinus;
    private TextView tvNumber;

    private static int storedNumber = 0;

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

    private void init() {
        tvNumber = (TextView) findViewById(R.id.tvnumber);
        bPlus = (Button) findViewById(R.id.bplus);
        bMinus = (Button) findViewById(R.id.bminus);

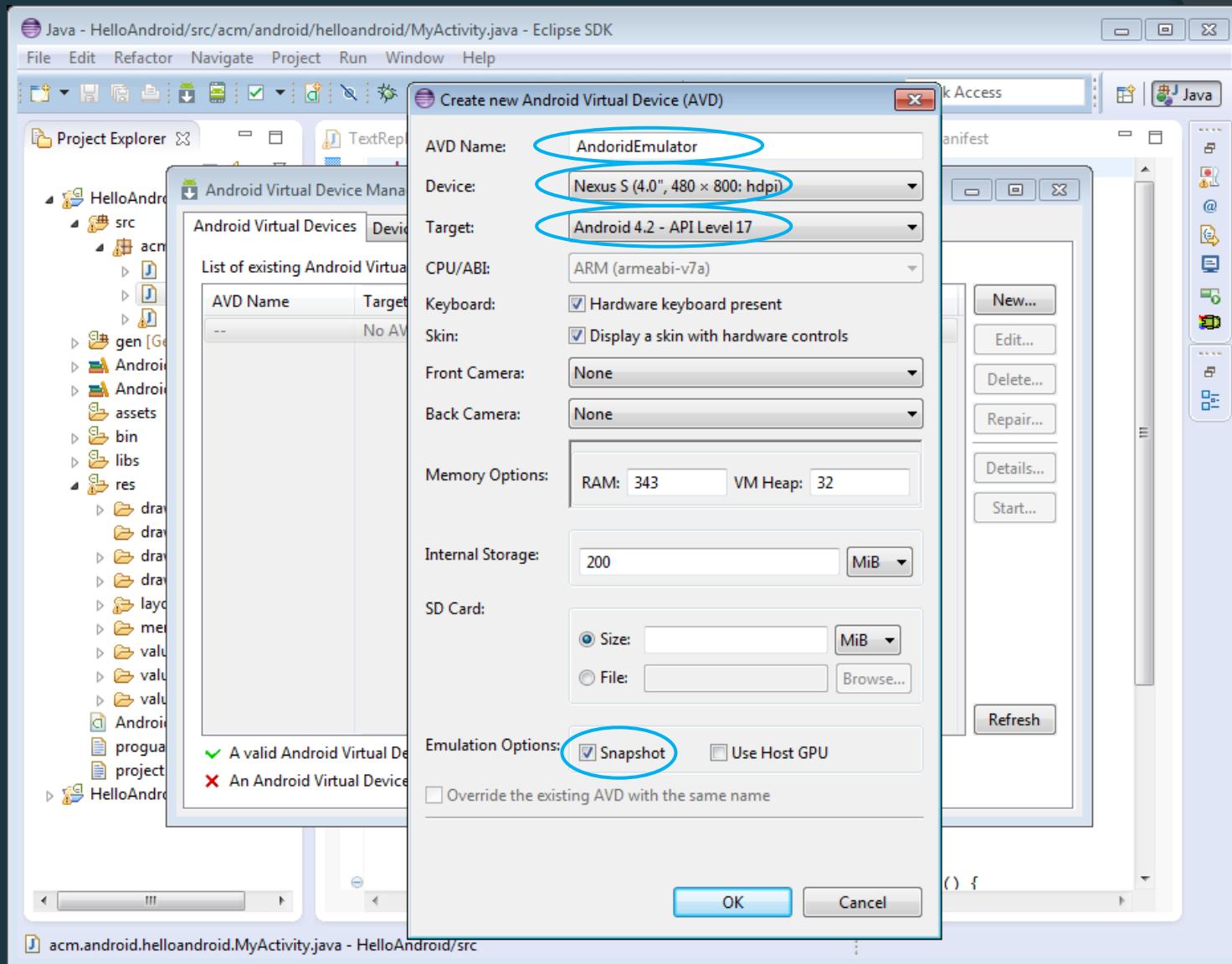
        tvNumber.setText( String.valueOf(storedNumber) );

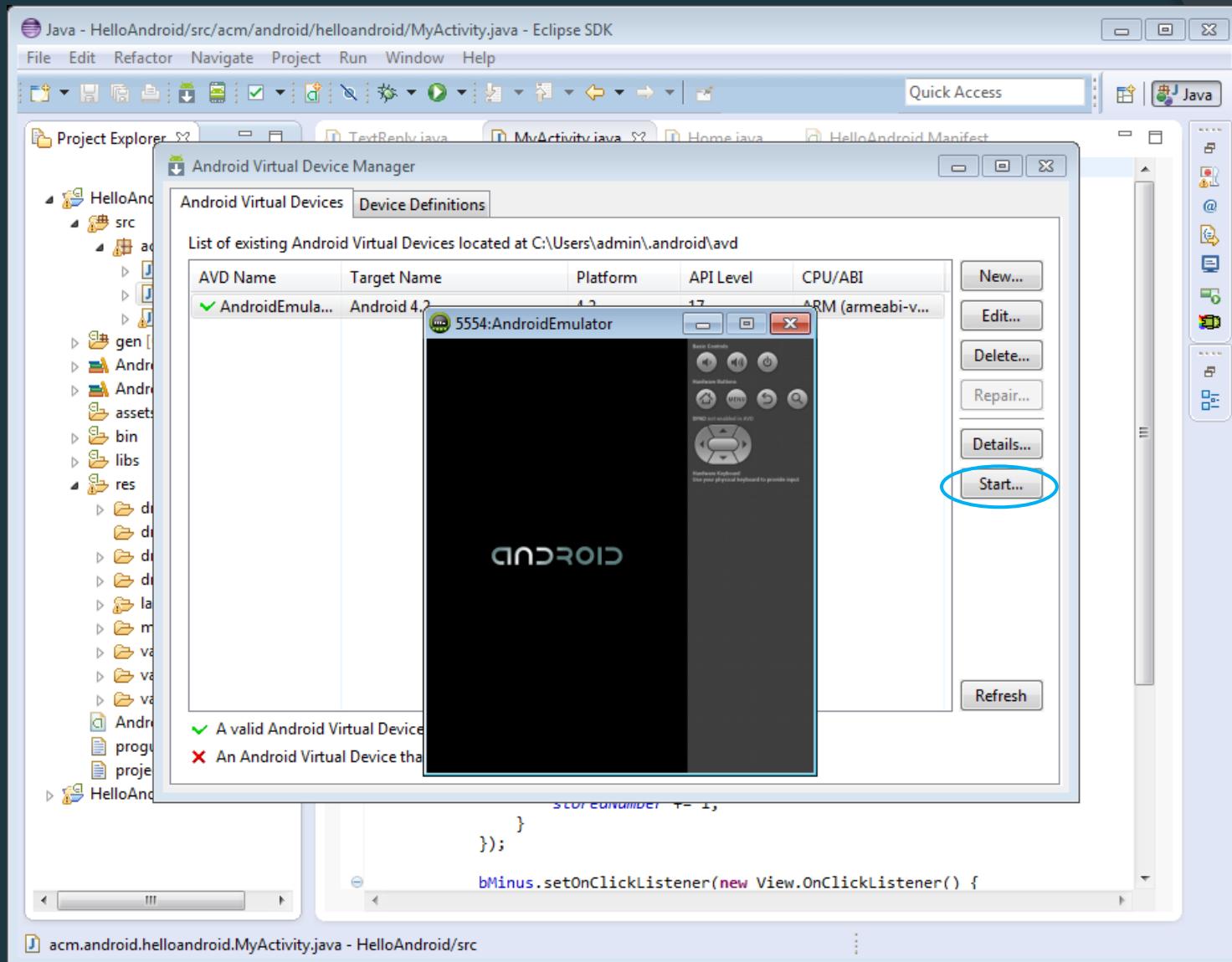
        bPlus.setOnClickListener(new View.OnClickListener() {

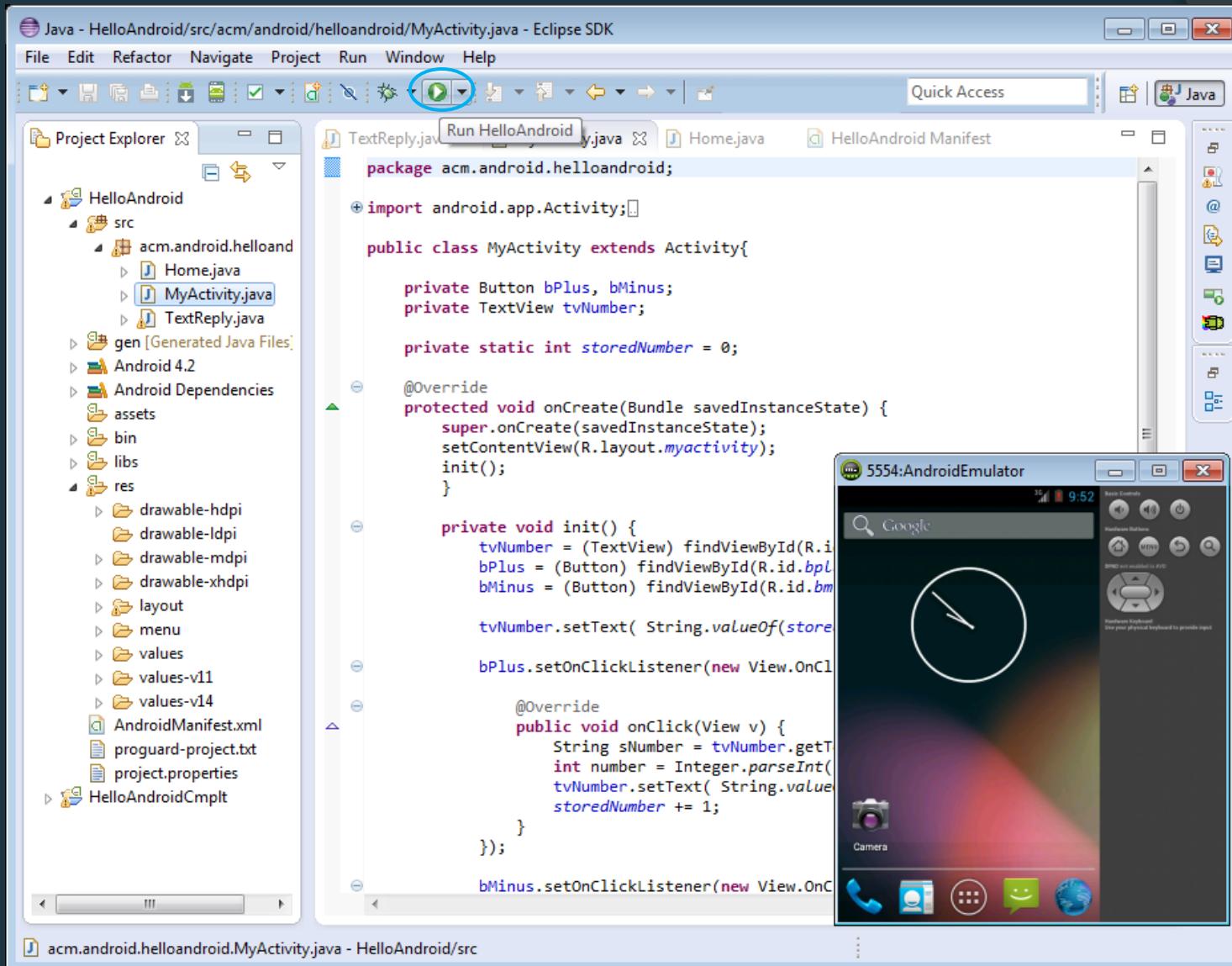
            @Override
            public void onClick(View v) {
                String sNumber = tvNumber.getText().toString();
                int number = Integer.parseInt( sNumber );
                tvNumber.setText( String.valueOf(number + 1) );
                storedNumber += 1;
            }
        });

        bMinus.setOnClickListener(new View.OnClickListener() {
    
```

acm.android.helloandroid.MyActivity.java - HelloAndroid/src







Java - HelloAndroid/src/acm/android/helloandroid/MyActivity.java - Eclipse SDK

File Edit Refactor Navigate Project Run Window Help

Project Explorer

- HelloAndroid
  - src
    - acm.android.helloand
    - Home.java
    - MyActivity.java
    - TextReply.java
  - gen [Generated Java Files]
  - Android 4.2
  - Android Dependencies
  - assets
  - bin
  - libs
  - res
    - drawable-hdpi
    - drawable-ldpi
    - drawable-mdpi
    - drawable-xhdpi
    - layout
    - menu
    - values
    - values-v11
    - values-v14
  - AndroidManifest.xml
  - proguard-project.txt
  - project.properties
- HelloAndroidCmplt

TextReply.java MyActivity.java Home.java HelloAndroid Manifest

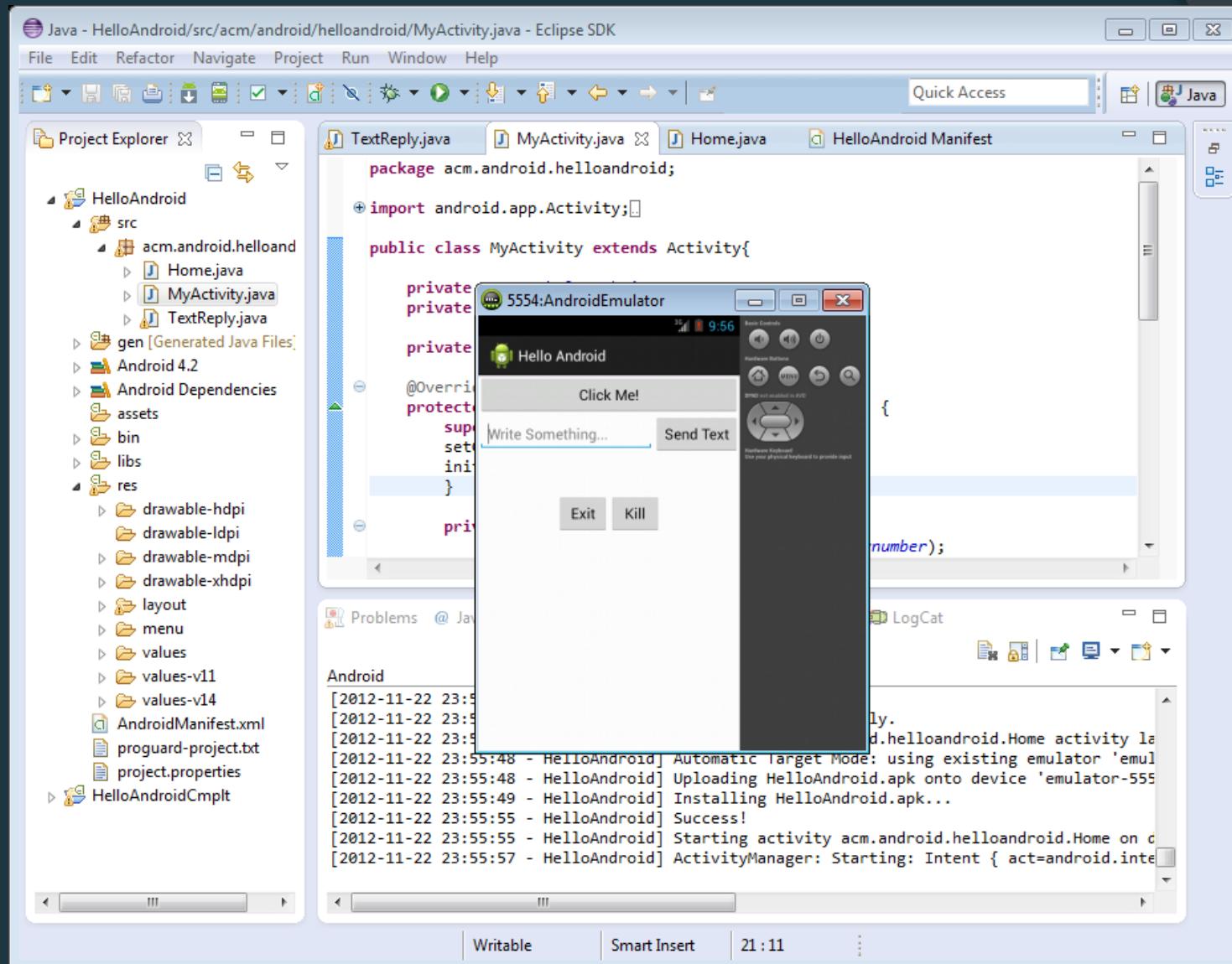
```
package acm.android.helloandroid;  
import android.app.Activity;  
  
public class MyActivity extends Activity{  
  
    private Button bPlus, bMinus;  
    private TextView tvNumber;  
  
    private static int storedNumber = 0;  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.myactivity);  
        init();  
    }  
  
    private void init() {  
        tvNumber = (TextView) findViewById(R.id.tvnumber);  
    }  
}
```

Problems Javadoc Declaration Console Progress LogCat

Android

```
[2012-11-22 23:55:48 - HelloAndroid] Android Launch!  
[2012-11-22 23:55:48 - HelloAndroid] adb is running normally.  
[2012-11-22 23:55:48 - HelloAndroid] Performing acm.android.helloandroid.Home activity launch  
[2012-11-22 23:55:48 - HelloAndroid] Automatic Target Mode: using existing emulator 'emulator-5554'  
[2012-11-22 23:55:48 - HelloAndroid] Uploading HelloAndroid.apk onto device 'emulator-5554'  
[2012-11-22 23:55:49 - HelloAndroid] Installing HelloAndroid.apk...  
[2012-11-22 23:55:55 - HelloAndroid] Success!  
[2012-11-22 23:55:55 - HelloAndroid] Starting activity acm.android.helloandroid.Home on c  
[2012-11-22 23:55:57 - HelloAndroid] ActivityManager: Starting: Intent { act=android.intent...
```

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Σας ευχαριστώ!