

Instructions for Lab 2a

CSE 162 - Mobile Computing - Lab



Start

New

Open

Save

Save As

Print

Share

Thumbnails



Close

Options

About

Pick a task...

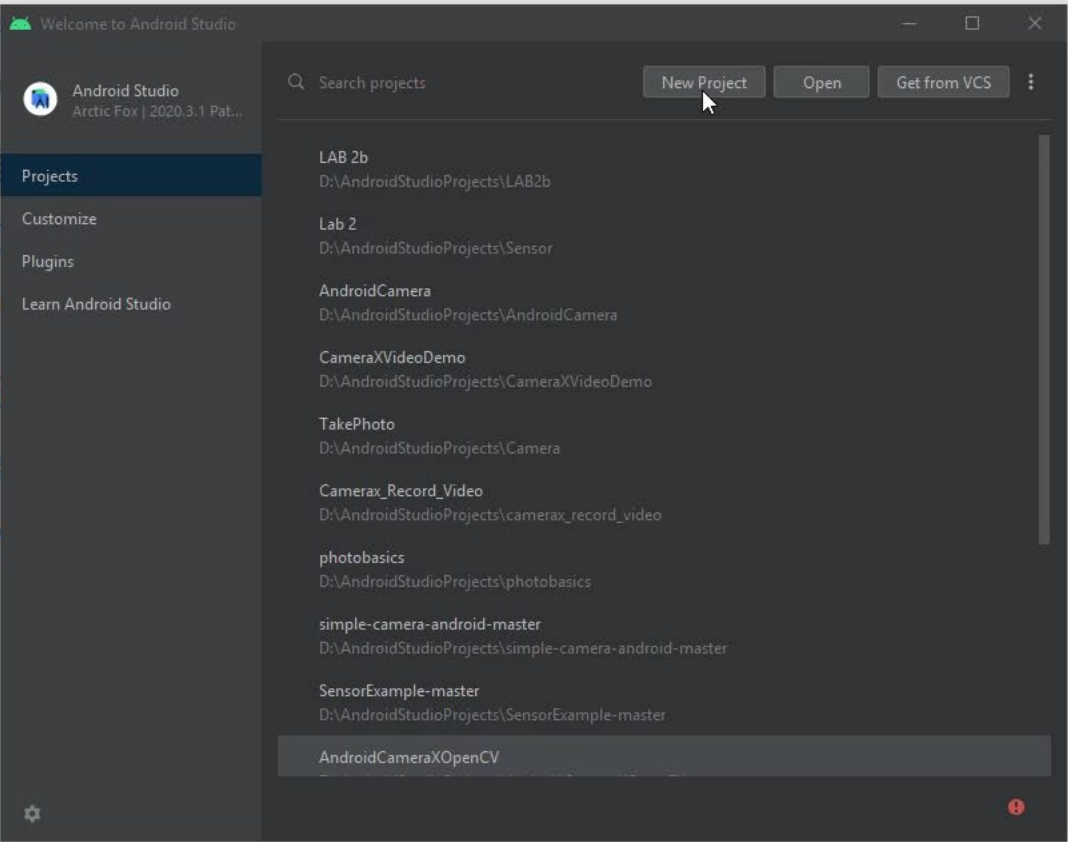
New task

-  **New**
Create a new blank image
-  **Open**
Open an existing image

Screen Capture

-  **Full-screen**
-  **Active Window**
-  **Window Control**
-  **Scrolling Window**
-  **Region**
-  **Fixed Region**
-  **FreeHand**
-  **Repeat Last Capture**

Grapp





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About

Pick a task...

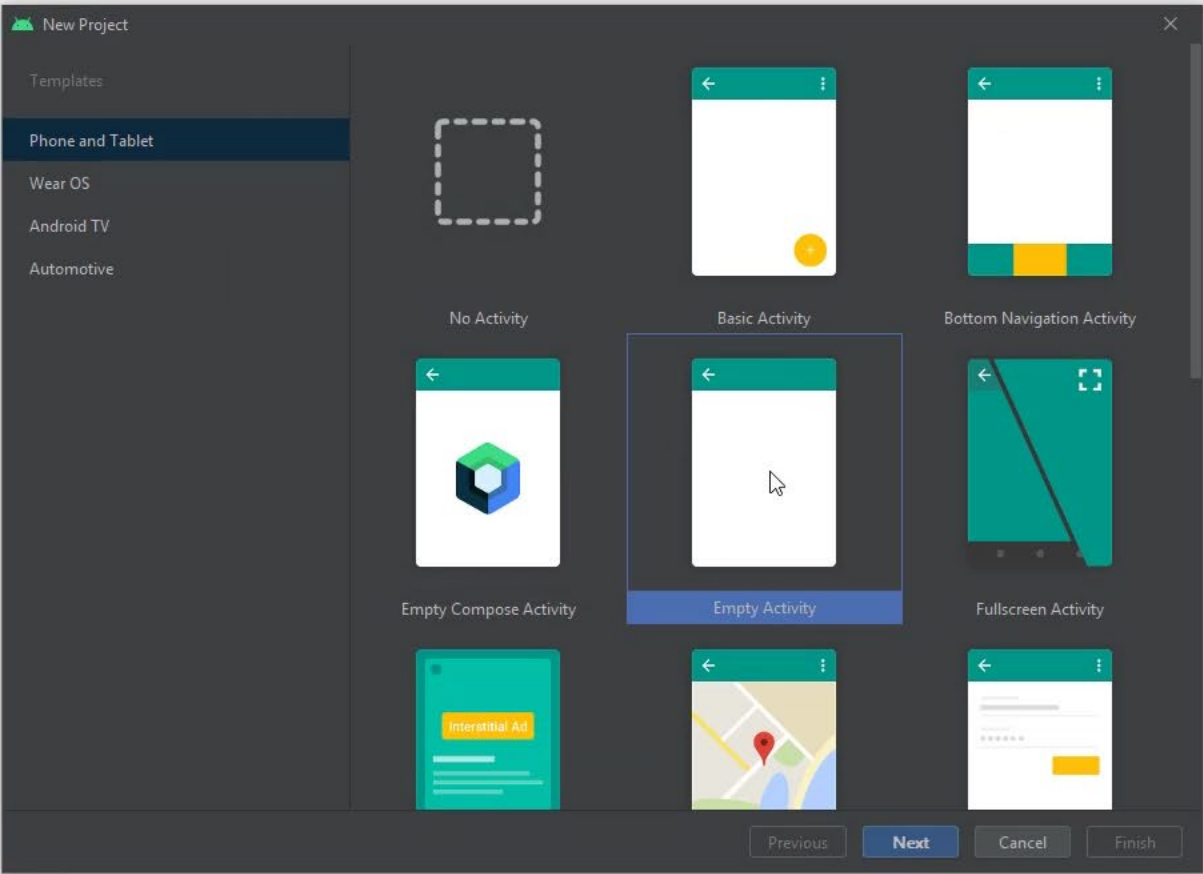
New task

-  New
Create a new blank image
-  Open
Open an existing image

Screen Capture

-  Full-screen
-  Active Window
-  Window Control
-  Scrolling Window
-  Region
-  Fixed Region
-  FreeHand
-  Repeat Last Capture

PicPick





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Pick a task...

New task

 New
Create a new blank image


 Open
Open an existing image

Screen Capture

 Full-screen

 Active Window

 Window Control

 Scrolling Window

 Region

 Fixed Region

 FreeHand

 Repeat Last Capture

PicPick



New Project

Empty Activity

Project Name

Empty activity

Name

LAB 2a

Your Name

Package name

com.yangqingsun.lab2a

Save location

D:\AndroidStudioProjects\LAB2a

Language

Java

Minimum SDK

API 21: Android 5.0 (Lollipop)

Your app will run on approximately 98.0% of devices.

[Help me choose](#)

☐ Use legacy android.support libraries

[?](#)

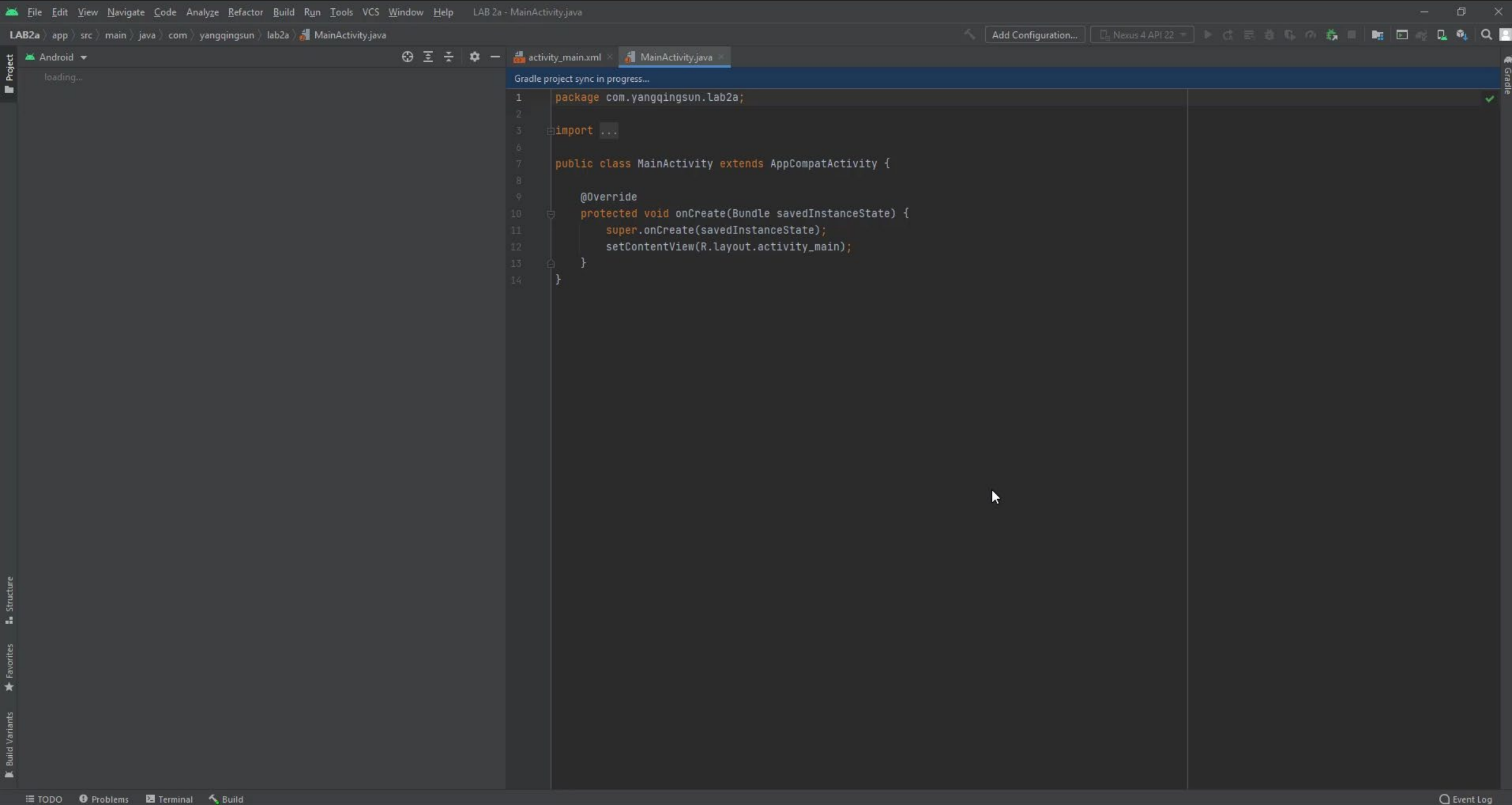
Using legacy android.support libraries will prevent you from using the latest Play Services and Jetpack libraries.

Previous

Next

Cancel

Finish



FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2aappsrcmainjavacomyangqingsunlab2aMainActivity

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Structure

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Build Variants

TODOProblemsTerminalBuildLogcatProfilerApp Inspection

activity_main.xmlMainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import ...
4
5
6
7 public class MainActivity extends AppCompatActivity {
8
9     @Override
10    protected void onCreate(Bundle savedInstanceState) {
11        super.onCreate(savedInstanceState);
12        setContentView(R.layout.activity_main);
13    }
14 }
```

appNexus 4 API 22

Gradle

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Event LogLayout Inspector

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - activity_main.xml [LAB_2a.app]

LAB2a > app > src > main > java > com > yangqingsun > lab2a > MainActivity

Android > app > manifests > java > com.yangqingsun.lab2a > MainActivity

res > drawable > layout > activity_main.xml

activity_main.xml

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".MainActivity">
8
9     <TextView
10         android:layout_width="wrap_content"
11         android:layout_height="wrap_content"
12         android:text="Hello World!"
13         app:layout_constraintBottom_toBottomOf="parent"
14         app:layout_constraintLeft_toLeftOf="parent"
15         app:layout_constraintRight_toRightOf="parent"
16         app:layout_constraintTop_toTopOf="parent" />
17
18 </androidx.constraintlayout.widget.ConstraintLayout>
```

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LAB 2a - activity_main.xml [LAB_2a.app]

LAB2a > app > src > main > res > layout > activity_main.xml

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Event Log

Layout Inspector

activity_main.xml

MainActivity.java

CodeSplitDesign

Layout Validation

Emulator

Device File Explorer

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".MainActivity">
8
9     <TextView
10         android:id="@+id/textView"
11         android:layout_width="wrap_content"
12         android:layout_height="wrap_content"
13         android:layout_marginTop="8dp"
14         android:text="@string/light"
15         app:layout_constraintBottom_toBottomOf="parent"
16         app:layout_constraintLeft_toLeftOf="parent"
17         app:layout_constraintRight_toRightOf="parent"
18         app:layout_constraintTop_toTopOf="parent"
19         app:layout_constraintVertical_bias="0.0" />
20
21 </androidx.constraintlayout.widget.ConstraintLayout>
```


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - activity_main.xml [LAB_2a.app]

LAB2a > app > src > main > res > layout > activity_main.xml

Android > app > manifests > java > com.yangqingsun.lab2a > MainActivity

activity_main.xml > MainActivity.java

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".MainActivity">
8
9     <TextView
10         android:id="@+id/textView"
11         android:layout_width="wrap_content"
12         android:layout_height="wrap_content"
13         android:layout_marginTop="8dp"
14         android:text="@string/light"
15         app:layout_constraintBottom_toBottomOf="parent"
16         app:layout_constraintLeft_toLeftOf="parent"
17         app:layout_constraintRight_toRightOf="parent"
18         app:layout_constraintTop_toTopOf="parent"
19         app:layout_constraintVertical_bias="0.0" />
20
21     <EditText
22         android:id="@+id/lightValue"
23         android:layout_width="wrap_content"
24         android:layout_height="wrap_content"
25         android:layout_below="@+id/textView"
26         android:layout_centerHorizontal="true"
27         android:layout_marginTop="16dp"
28         android:inputType="textMultiLine"
29         app:layout_constraintBottom_toBottomOf="parent"
30         app:layout_constraintHorizontal_bias="0.498"
31         app:layout_constraintLeft_toLeftOf="parent"
32         app:layout_constraintRight_toRightOf="parent"
33         app:layout_constraintTop_toTopOf="parent"
34         app:layout_constraintVertical_bias="0.071" />
35
36 </androidx.constraintlayout.widget.ConstraintLayout>
```

androidx.constraintlayout.widget.ConstraintLayout > EditText

TODO Problems Terminal Build Logcat Profiler App Inspection

Event Log Layout Inspector

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - activity_main.xml [LAB_2a.app]

LAB2a > app > src > main > res > layout > activity_main.xml

Android > app > manifests > java > com.yangqingsun.lab2a > MainActivity

res > drawable > layout > activity_main.xml

values > colors.xml > strings.xml > themes (2)

Gradle Scripts

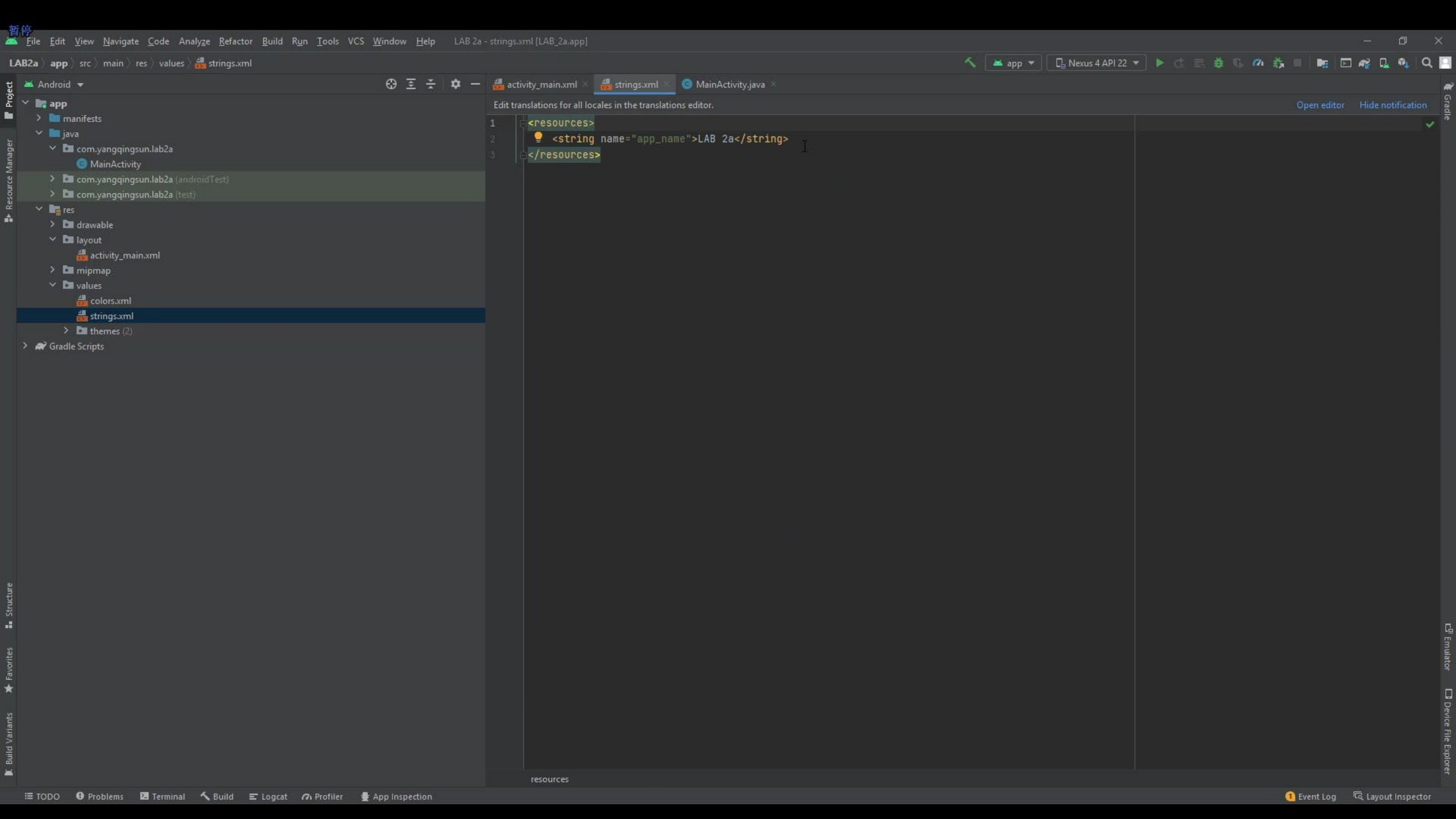
```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".MainActivity">
8
9     <TextView
10         android:id="@+id/textView"
11         android:layout_width="wrap_content"
12         android:layout_height="wrap_content"
13         android:layout_marginTop="8dp"
14         android:text="@string/light"
15         app:layout_constraintBottom_toBottomOf="parent"
16         app:layout_constraintLeft_toLeftOf="parent"
17         app:layout_constraintRight_toRightOf="parent"
18         app:layout_constraintTop_toTopOf="parent"
19         app:layout_constraintVertical_bias="0.0" />
20
21     <EditText
22         android:id="@+id/lightValue"
23         android:layout_width="wrap_content"
24         android:layout_height="wrap_content"
25         android:layout_below="@+id/textView"
26         android:layout_centerHorizontal="true"
27         android:layout_marginTop="16dp"
28         android:inputType="textMultiLine"
29         app:layout_constraintBottom_toBottomOf="parent"
30         app:layout_constraintHorizontal_bias="0.498"
31         app:layout_constraintLeft_toLeftOf="parent"
32         app:layout_constraintRight_toRightOf="parent"
33         app:layout_constraintTop_toTopOf="parent"
34         app:layout_constraintVertical_bias="0.071" />
35
36 </androidx.constraintlayout.widget.ConstraintLayout>
```

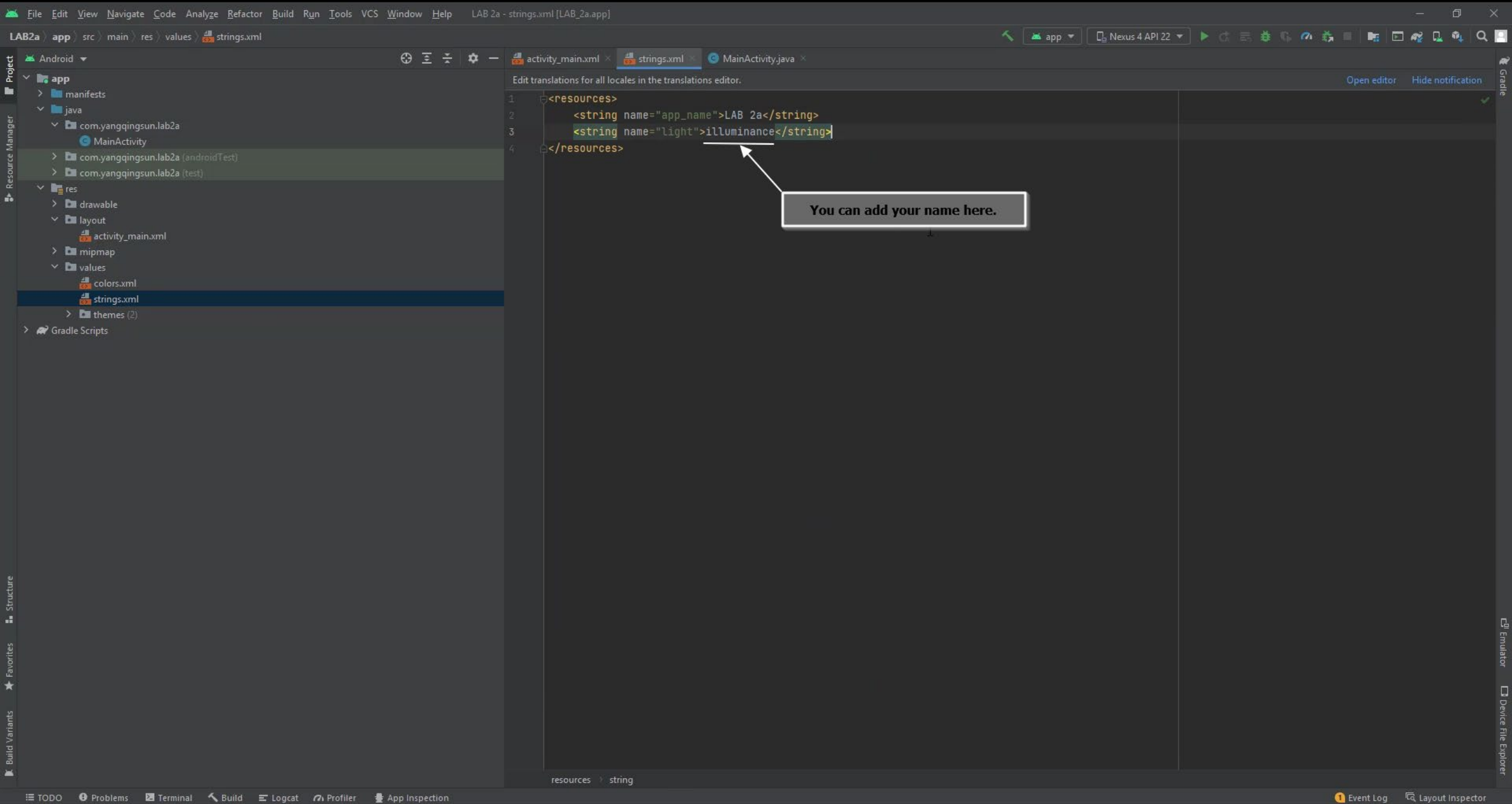
androidx.constraintlayout.widget.ConstraintLayout > EditText

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

Code Split Design

Event Log Layout Inspector





File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - activity_main.xml [LAB_2a.app]

LAB2a > app > src > main > res > layout > activity_main.xml

Android > app > manifests > java > com.yangqingsun.lab2a > MainActivity > com.yangqingsun.lab2a (androidTest) > com.yangqingsun.lab2a (test) > res > drawable > layout > activity_main.xml > mipmap > values > colors.xml > strings.xml > themes (2) > Gradle Scripts

activity_main.xml strings.xml MainActivity.java

Code Split Design

```
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3     xmlns:app="http://schemas.android.com/apk/res-auto"
4     xmlns:tools="http://schemas.android.com/tools"
5     android:layout_width="match_parent"
6     android:layout_height="match_parent"
7     tools:context=".MainActivity">
8
9     <TextView
10         android:id="@+id/textView"
11         android:layout_width="wrap_content"
12         android:layout_height="wrap_content"
13         android:layout_marginTop="8dp"
14         android:text="@string/light"
15         app:layout_constraintBottom_toBottomOf="parent"
16         app:layout_constraintLeft_toLeftOf="parent"
17         app:layout_constraintRight_toRightOf="parent"
18         app:layout_constraintTop_toTopOf="parent"
19         app:layout_constraintVertical_bias="0.0" />
20
21     <EditText
22         android:id="@+id/lightValue"
23         android:layout_width="wrap_content"
24         android:layout_height="wrap_content"
25         android:layout_below="@+id/textView"
26         android:layout_centerHorizontal="true"
27         android:layout_marginTop="16dp"
28         android:inputType="textMultiLine"
29         app:layout_constraintBottom_toBottomOf="parent"
30         app:layout_constraintHorizontal_bias="0.498"
31         app:layout_constraintLeft_toLeftOf="parent"
32         app:layout_constraintRight_toRightOf="parent"
33         app:layout_constraintTop_toTopOf="parent"
34         app:layout_constraintVertical_bias="0.071" />
35
36 </androidx.constraintlayout.widget.ConstraintLayout>
```

androidx.constraintlayout.widget.ConstraintLayout > EditText

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

Event Log Layout Inspector

FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a> app> src> main> java> com> yangqingsun> lab2a> MainActivity

Android

Project

Resource Manager

Structure

Favorites

Build Variants

app

manifests

java

com.yangqingsun.lab2a

MainActivity

com.yangqingsun.lab2a (androidTest)

com.yangqingsun.lab2a (test)

res

drawable

layout

activity_main.xml

mipmap

values

colors.xml

strings.xml

themes (2)

Gradle Scripts

activity_main.xml

strings.xml

MainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import ...
4
5
6
7 public class MainActivity extends AppCompatActivity {
8
9     @Override
10    protected void onCreate(Bundle savedInstanceState) {
11        super.onCreate(savedInstanceState);
12        setContentView(R.layout.activity_main);
13    }
14 }
```

Analyzing...

Gradle

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Build

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LAB 2a - MainActivity.java [LAB_2a.app]

LAB2aappsrcmainjavacomyangqingsunlab2aMainActivity

appNexus 4 API 22

Android

Project

Resource Manager

Structure

Favorites

Build Variants

activity_main.xmlstrings.xmlMainActivity.java

1package com.yangqingsun.lab2a;

2

3import androidx.appcompat.app.AppCompatActivity;

4

5import android.os.Bundle;

6

7public class MainActivity extends Activity implements SensorEventListener {

8|

9}

Gradle

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FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a> app> src> main> java> com> yangqingsun> lab2a> MainActivity

Android

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activity_main.xmlstrings.xmlMainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 public class MainActivity extends Activity implements SensorEventListener {
8     private SensorManager sensorManager;
9     private Sensor light;
10
11     @Override
12     public final void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         // Get an instance of the sensor service, and use that to get an instance of
17         // a particular sensor.
18         sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
19         light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);
20     }
21
22
23 }
```

Add a sensor event listener.

FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a> app> src> main> java> com> yangqingsun> lab2a> MainActivity

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com.yangqingsun.lab2a

MainActivity

com.yangqingsun.lab2a (androidTest)

com.yangqingsun.lab2a (test)

res

drawable

layout

activity_main.xml

mipmap

values

colors.xml

strings.xml

themes (2)

Gradle Scripts

activity_main.xml

strings.xml

MainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 public class MainActivity extends AppCompatActivity implements SensorEventListener {
8     private SensorManager sensorManager;
9     private Sensor light;
10
11     @Override
12     public final void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         // Get an instance of the sensor service, and use that to get an instance of
17         // a particular sensor.
18         sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
19         light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);
20     }
21
22     @Override
23     public final void onAccuracyChanged(Sensor sensor, int accuracy) {
24         // Do something here if sensor accuracy changes.
25     }
26
27
28 }
```

14

8

^

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暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a > app > src > main > java > com > yangqingsun > lab2a > MainActivity

Android

Project

- app
 - manifests
 - java
 - com.yangqingsun.lab2a
 - MainActivity
 - com.yangqingsun.lab2a (androidTest)
 - com.yangqingsun.lab2a (test)
 - res
 - drawable
 - layout
 - activity_main.xml
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - themes (2)
- Gradle Scripts

Structure

Favorites

Build Variants

TODO Problems Terminal Build Logcat Profiler App Inspection

activity_main.xml strings.xml MainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 public class MainActivity extends AppCompatActivity implements SensorEventListener {
8     private SensorManager sensorManager;
9     private Sensor light;
10
11     @Override
12     public final void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         // Get an instance of the sensor service, and use that to get an instance of
17         // a particular sensor.
18         sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
19         light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);
20     }
21
22     @Override
23     public final void onAccuracyChanged(Sensor sensor, int accuracy) {
24         // Do something here if sensor accuracy changes.
25     }
26
27     @Override
28     public final void onSensorChanged(SensorEvent event) {
29         EditText field = findViewById(R.id.LightValue);
30         field.setText(event.values[0] + " lux");
31     }
32
33
34 }
```

Add onSensorChanged() function.

Emulator

Device File Explorer

Event Log Layout Inspector

FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2aappsrcmainjavacomyangqingsunlab2aMainActivityonResume

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manifests

java

com.yangqingsun.lab2a

MainActivity

com.yangqingsun.lab2a (androidTest)

com.yangqingsun.lab2a (test)

res

drawable

layout

activity_main.xml

mipmap

values

colors.xml

strings.xml

themes (2)

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activity_main.xml

strings.xml

MainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 public class MainActivity extends AppCompatActivity implements SensorEventListener {
8     private SensorManager sensorManager;
9     private Sensor light;
10
11     @Override
12     public final void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         // Get an instance of the sensor service, and use that to get an instance of
17         // a particular sensor.
18         sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
19         light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);
20     }
21
22     @Override
23     public final void onAccuracyChanged(Sensor sensor, int accuracy) {
24         // Do something here if sensor accuracy changes.
25     }
26
27     @Override
28     public final void onSensorChanged(SensorEvent event) {
29         EditText field = findViewById(R.id.LightValue);
30         field.setText(event.values[0] + " lux");
31     }
32
33     @Override
34     protected void onResume() {
35         // Register a listener for the sensor.
36         super.onResume();
37         sensorManager.registerListener(this, light, SensorManager.SENSOR_DELAY_NORMAL);
38     }
39
40 }
```

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LAB 2a - MainActivity.java [LAB_2a.app]

LAB2aappsrcmainjavacomyangqingsunlab2aMainActivityonPause

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app

manifests

java

com.yangqingsun.lab2a

MainActivity

com.yangqingsun.lab2a (androidTest)

com.yangqingsun.lab2a (test)

res

drawable

layout

activity_main.xml

mipmap

values

colors.xml

strings.xml

themes (2)

Gradle Scripts

activity_main.xml

strings.xml

MainActivity.java

```
1 package com.yangqingsun.lab2a;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 public class MainActivity extends AppCompatActivity implements SensorEventListener {
8     private SensorManager sensorManager;
9     private Sensor light;
10
11     @Override
12     public final void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         // Get an instance of the sensor service, and use that to get an instance of
17         // a particular sensor.
18         sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
19         light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);
20     }
21
22     @Override
23     public final void onAccuracyChanged(Sensor sensor, int accuracy) {
24         // Do something here if sensor accuracy changes.
25     }
26
27     @Override
28     public final void onSensorChanged(SensorEvent event) {
29         EditText field = findViewById(R.id.LightValue);
30         field.setText(event.values[0] + " lux");
31     }
32
33     @Override
34     protected void onResume() {
35         // Register a listener for the sensor.
36         super.onResume();
37         sensorManager.registerListener(this, light, SensorManager.SENSOR_DELAY_NORMAL);
38     }
39
40     @Override
41     protected void onPause() {
42         // Be sure to unregister the sensor when the activity pauses.
43         super.onPause();
44         sensorManager.unregisterListener(this);
45     }
```

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Event Log

Layout Inspector

FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a> app> src> main> java> com> yangqingsun> lab2a> MainActivity> onPause

Android

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Resource Manager

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app

manifests

java

com.yangqingsun.lab2a

MainActivity

com.yangqingsun.lab2a (androidTest)

com.yangqingsun.lab2a (test)

res

drawable

layout

activity_main.xml

mipmap

values

colors.xml

strings.xml

themes (2)

Gradle Scripts

activity_main.xmlstrings.xmlMainActivity.java

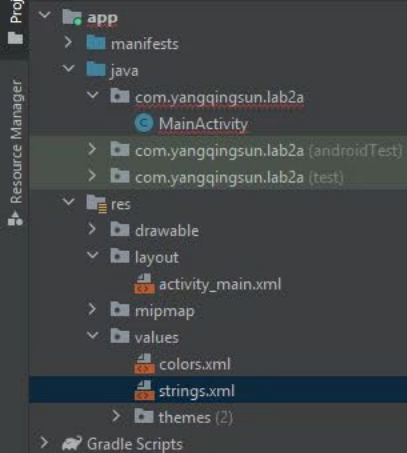
```
9 private SensorManager sensorManager;  
10 private Sensor light;  
  
11  
12 @Override  
13 public final void onCreate(Bundle savedInstanceState) {  
14     super.onCreate(savedInstanceState);  
15     setContentView(R.layout.activity_main);  
  
16     // Get an instance of the sensor service, and use that to get an instance of  
17     // a particular sensor.  
18     sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);  
19     light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);  
20 }  
  
21  
22 @Override  
23 public final void onAccuracyChanged(Sensor sensor, int accuracy) {  
24     // Do something here if sensor accuracy changes.  
25 }  
  
26  
27 @Override  
28 public final void onSensorChanged(SensorEvent event) {  
29     EditText field = findViewById(R.id.lightValue);  
30     field.setText(event.values[0] + " lux");  
31 }  
  
32  
33 @Override  
34 protected void onResume() {  
35     // Register a listener for the sensor.  
36     super.onResume();  
37     sensorManager.registerListener(this, light, SensorManager.SENSOR_DELAY_NORMAL);  
38 }  
  
39  
40 @Override  
41 protected void onPause() {  
42     // Be sure to unregister the sensor when the activity pauses.  
43     super.onPause();  
44     sensorManager.unregisterListener(this);  
45 }  
46 }
```

27 8

EmulatorDevice File Explorer

TODOProblemsTerminalBuildLogcatProfilerApp Inspection

Event LogLayout Inspector

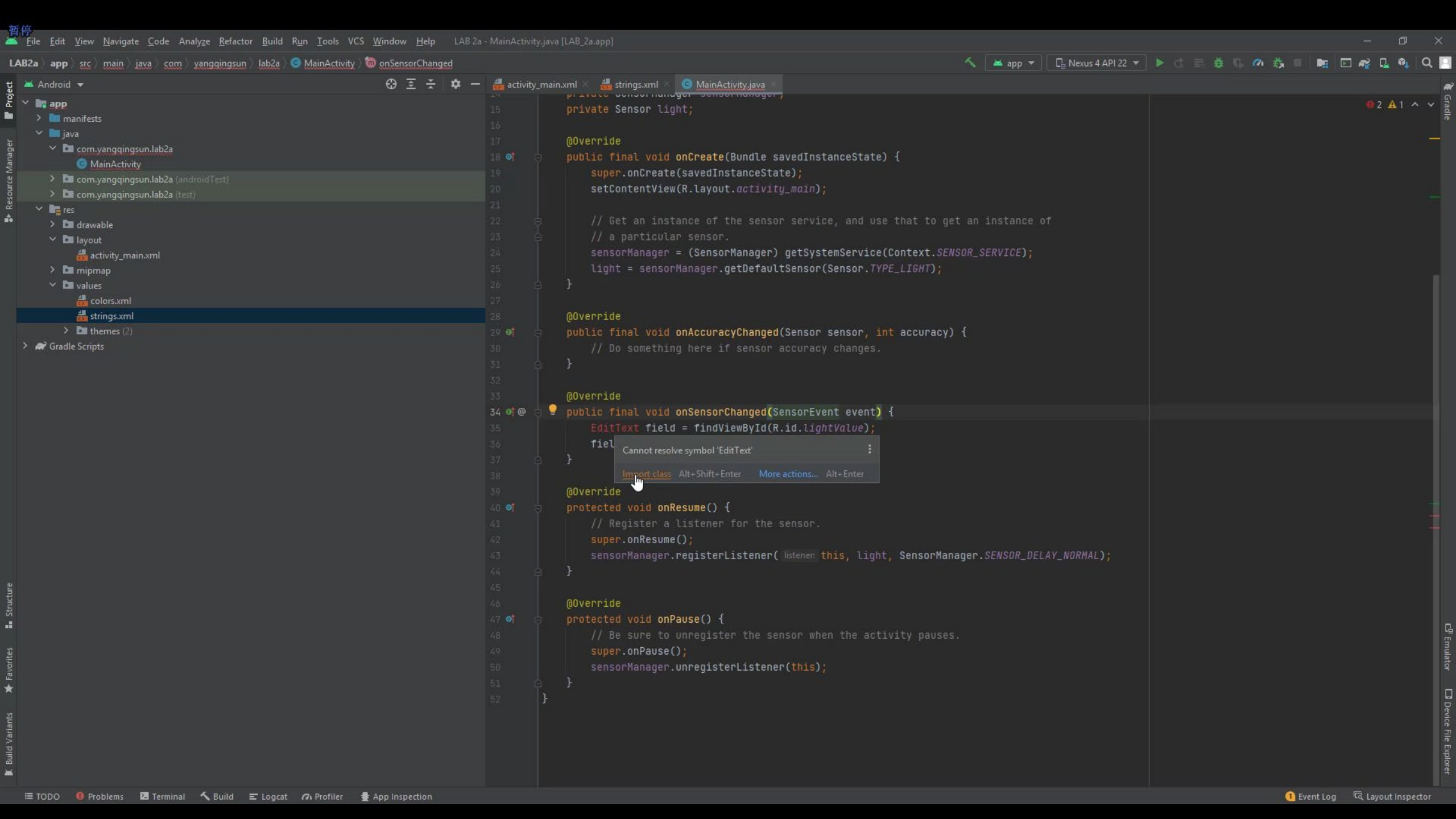


```
1 package com.yangqingsun.lab2a;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
6
7 public class MainActivity extends Activity implements SensorEventListener {
8     private SensorManager sensorManager;
9     private Sensor light;
10
11     @Override
12     public final void onCreate(Bundle savedInstanceState) {
13         super.onCreate(savedInstanceState);
14         setContentView(R.layout.activity_main);
15
16         // Get an instance of the sensor service, and use that to get an instance of
17         // a particular sensor.
18         sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);
19         light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);
20     }
21
22     @Override
23     public final void onAccuracyChanged(Sensor sensor, int accuracy) {
24         // Do something here if sensor accuracy changes.
25     }
26
27     @Override
28     public final void onSensorChanged(SensorEvent event) {
29         EditText field = findViewById(R.id.LightValue);
30         field.setText(event.values[0] + " lux");
31     }
32
33     @Override
34     protected void onResume() {
35         // Register a listener for the sensor.
36         super.onResume();
37         sensorManager.registerListener(this, light, SensorManager.SENSOR_DELAY_NORMAL);
38     }
39
40     @Override
41     protected void onPause() {
42         // Be sure to unregister the sensor when the activity pauses.
43         super.onPause();
44         sensorManager.unregisterListener(this);
45     }
46 }
```

Import all the necessary classes.

Cannot resolve symbol 'Activity'

[Import class](#) Alt+Shift+Enter [More actions...](#) Alt+Enter



File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a > app > src > main > java > com > yangqingsun > lab2a > MainActivity

Android > app > manifests > java > com.yangqingsun.lab2a > MainActivity

activity_main.xml x strings.xml x MainActivity.java x

```
15 private SensorManager sensorManager;
16 private Sensor light;
17
18 @Override
19 public final void onCreate(Bundle savedInstanceState) {
20     super.onCreate(savedInstanceState);
21     setContentView(R.layout.activity_main);
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23     // Get an instance of the sensor service, and use that to get an instance of
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29 @Override
30 public final void onAccuracyChanged(Sensor sensor, int accuracy) {
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36     EditText field = findViewById(R.id.lightValue);
37     field.setText(event.values[0] + " lux");
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40 @Override
41 protected void onResume() {
42     // Register a listener for the sensor.
43     super.onResume();
44     sensorManager.registerListener(listener: this, light, SensorManager.SENSOR_DELAY_NORMAL);
45 }
46
47 @Override
48 protected void onPause() {
49     // Be sure to unregister the sensor when the activity pauses.
50     super.onPause();
51     sensorManager.unregisterListener(this);
52 }
53 }
54
```

Nexus 4 / API 22

TODO Problems Terminal Build Logcat Profiler App Inspection Run

Event Log Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a > app > src > main > java > com > yangqingsun > lab2a > MainActivity

Project

Android

- app
 - manifests
 - java
 - com.yangqingsun.lab2a
 - MainActivity
 - com.yangqingsun.lab2a (androidTest)
 - com.yangqingsun.lab2a (test)
 - java (generated)
 - res
 - drawable
 - layout
 - activity_main.xml
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - themes (2)
 - res (generated)
 - Gradle Scripts

Structure

Favorites

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

Build Variants

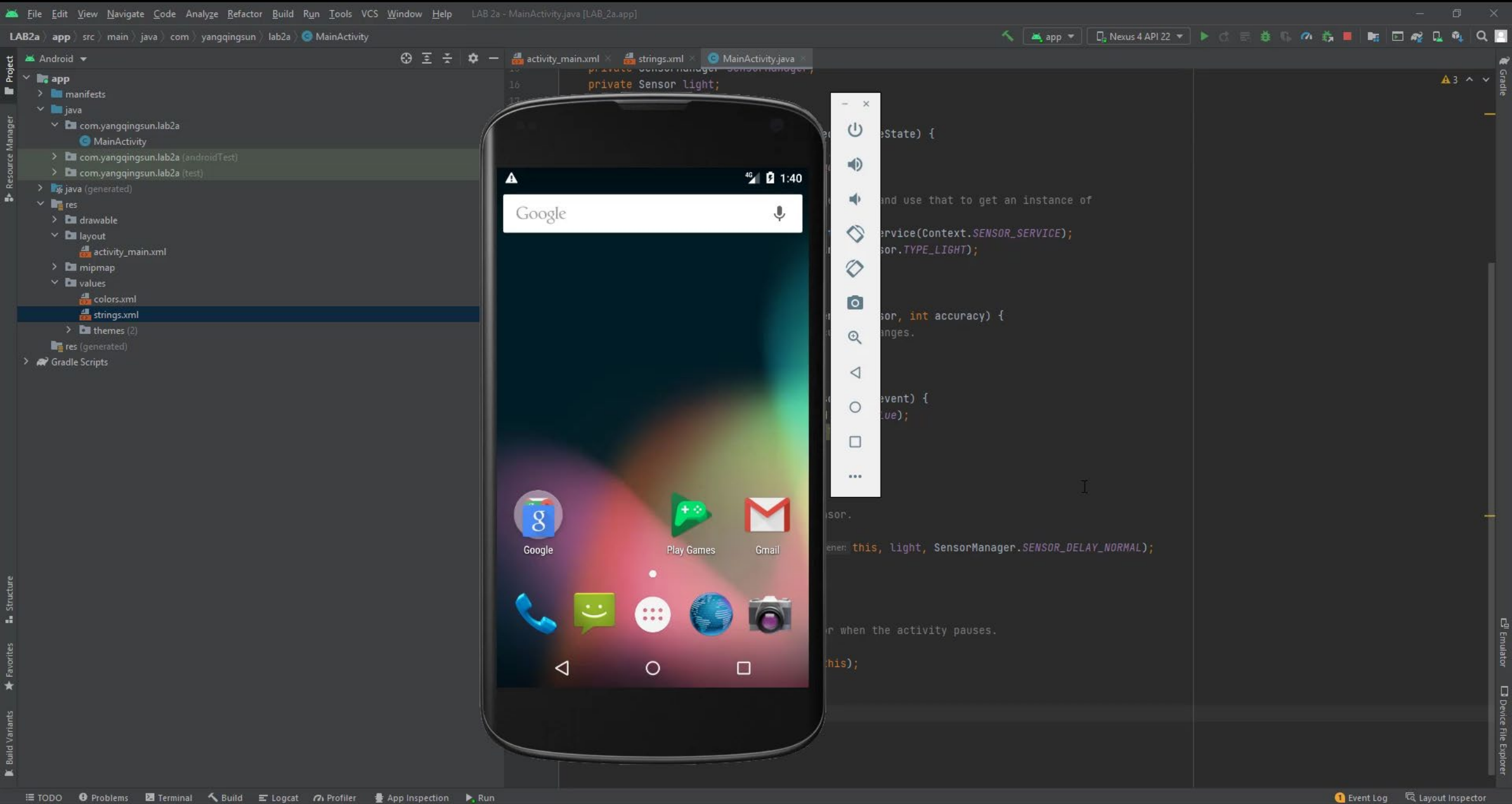
activity_main.xml x strings.xml x MainActivity.java x

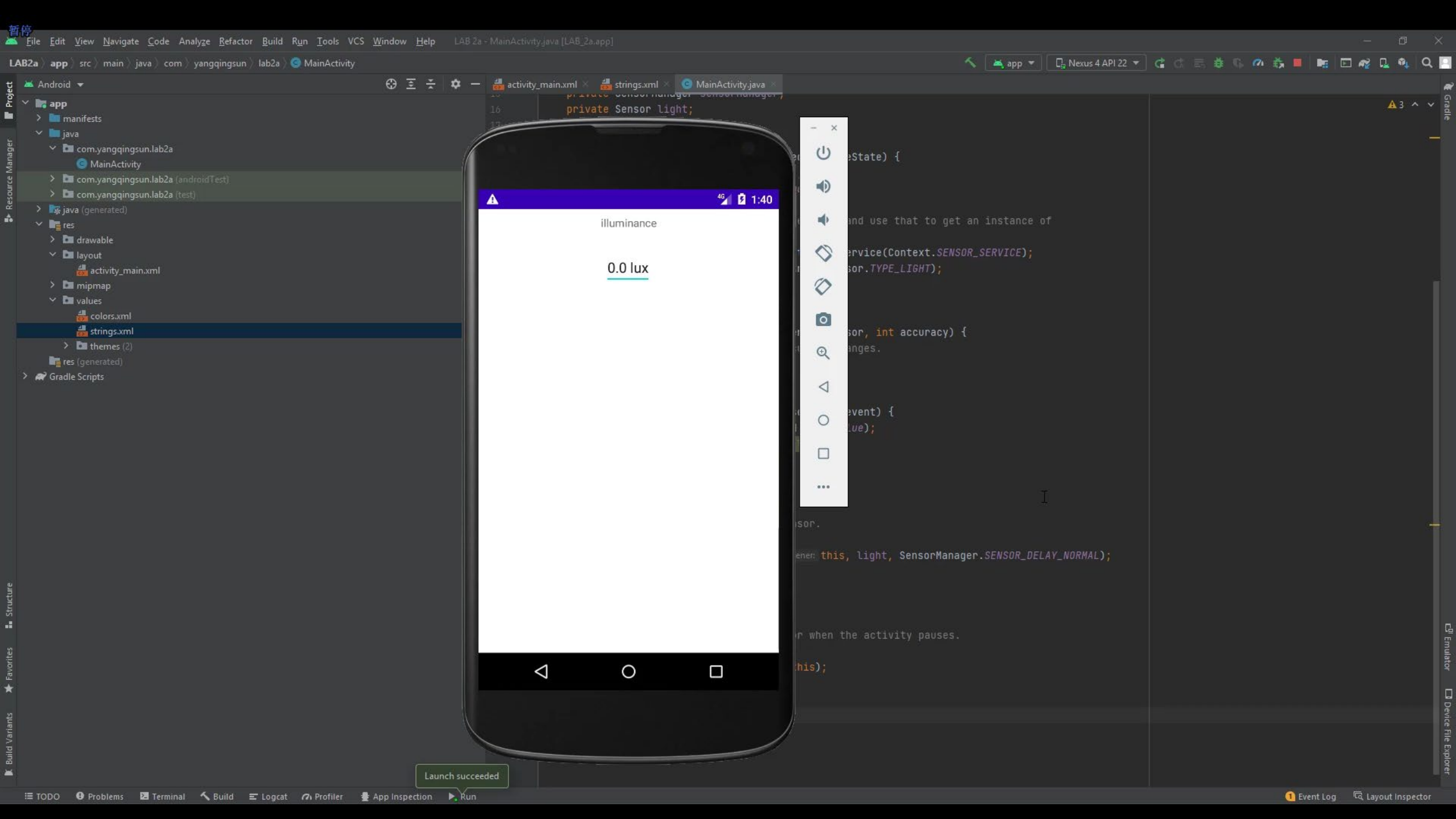
```
15 private SensorManager sensorManager;  
16 private Sensor light;  
17  
18  
19 @Override  
20 public final void onCreate(Bundle savedInstanceState) {  
21     super.onCreate(savedInstanceState);  
22     setContentView(R.layout.activity_main);  
23  
24     // Get an instance of the sensor service, and use that to get an instance of  
25     // a particular sensor.  
26     sensorManager = (SensorManager) getSystemService(Context.SENSOR_SERVICE);  
27     light = sensorManager.getDefaultSensor(Sensor.TYPE_LIGHT);  
28 }  
29  
30 @Override  
31 public final void onAccuracyChanged(Sensor sensor, int accuracy) {  
32     // Do something here if sensor accuracy changes.  
33 }  
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35 @Override  
36 public final void onSensorChanged(SensorEvent event) {  
37     EditText field = findViewById(R.id.lightValue);  
38     field.setText(event.values[0] + " lux");  
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40  
41 @Override  
42 protected void onResume() {  
43     // Register a listener for the sensor.  
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45     sensorManager.registerListener(listener: this, light, SensorManager.SENSOR_DELAY_NORMAL);  
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47  
48 @Override  
49 protected void onPause() {  
50     // Be sure to unregister the sensor when the activity pauses.  
51     super.onPause();  
52     sensorManager.unregisterListener(this);  
53 }  
54 }
```

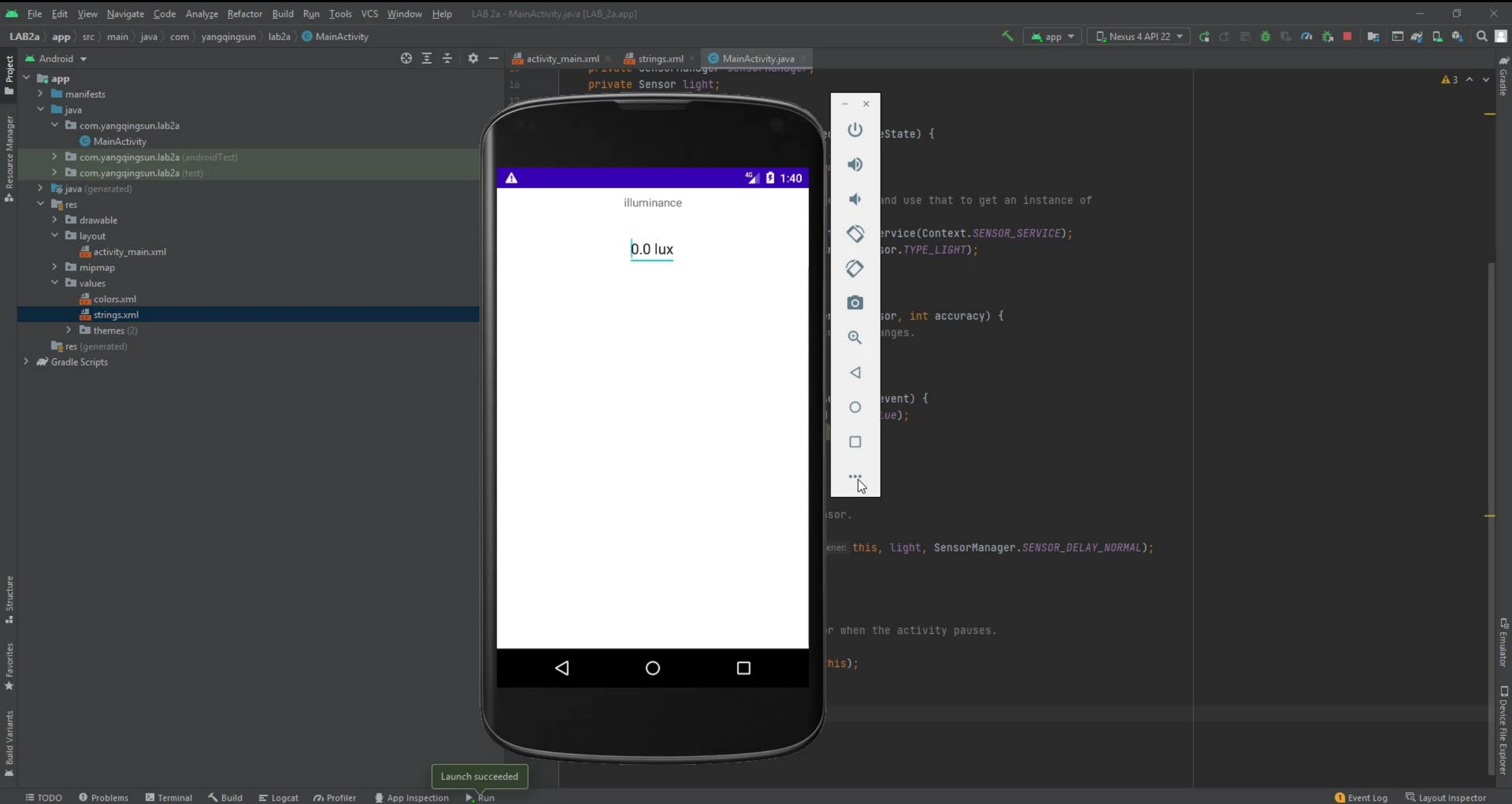
Nexus 4 API 22

TODO Problems Terminal Build Logcat Profiler App Inspection Run

Event Log Layout Inspector







FileEditViewNavigateCodeAnalyzeRefactorBuildRunToolsVCSWindowHelp

LAB 2a - MainActivity.java [LAB_2a.app]

LAB2aappsrcmainjavacomyangqingsunlab2aMainActivity

Android

Project

Resource Manager

Structure

Emulator

Device File Explorer

Build Variants

Build

Logcat

Profiler

App Inspection

Run

activity_main.xmlstrings.xmlMainActivity.java

```
16private SensorManager sensorManager;
17private Sensor light;
```

illuminance

0.0 lux

Extended Controls - Nexus_4_API_22:5554

Location

Cellular

Battery

Camera

Phone

Directional pad

Microphone

Fingerprint

Virtual sensors

Bug report

Snapshots


Record and Playback

Settings

Help

Single pointsRoutes

Search



Enable GPS signal

Saved points

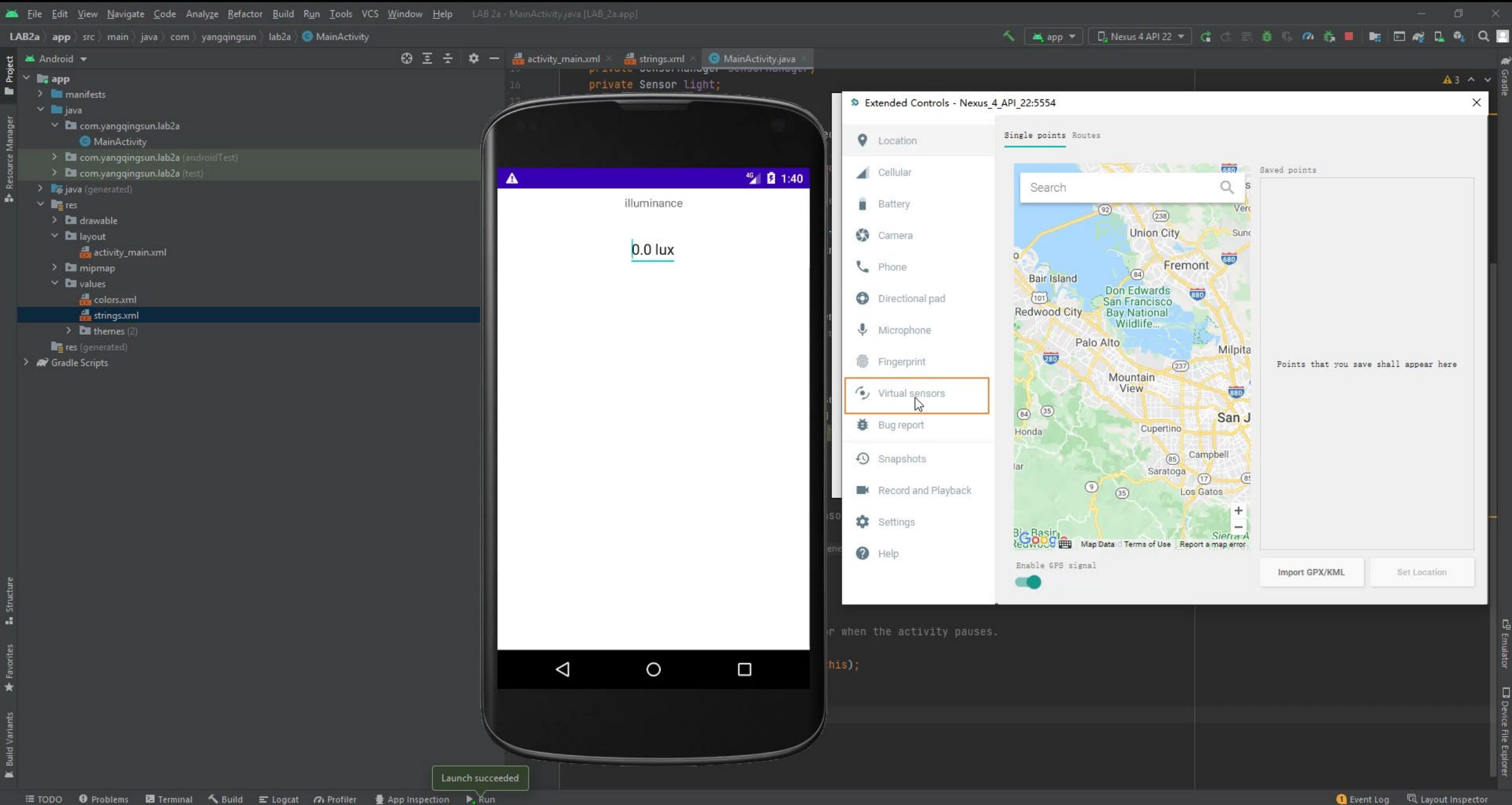
Points that you save shall appear here

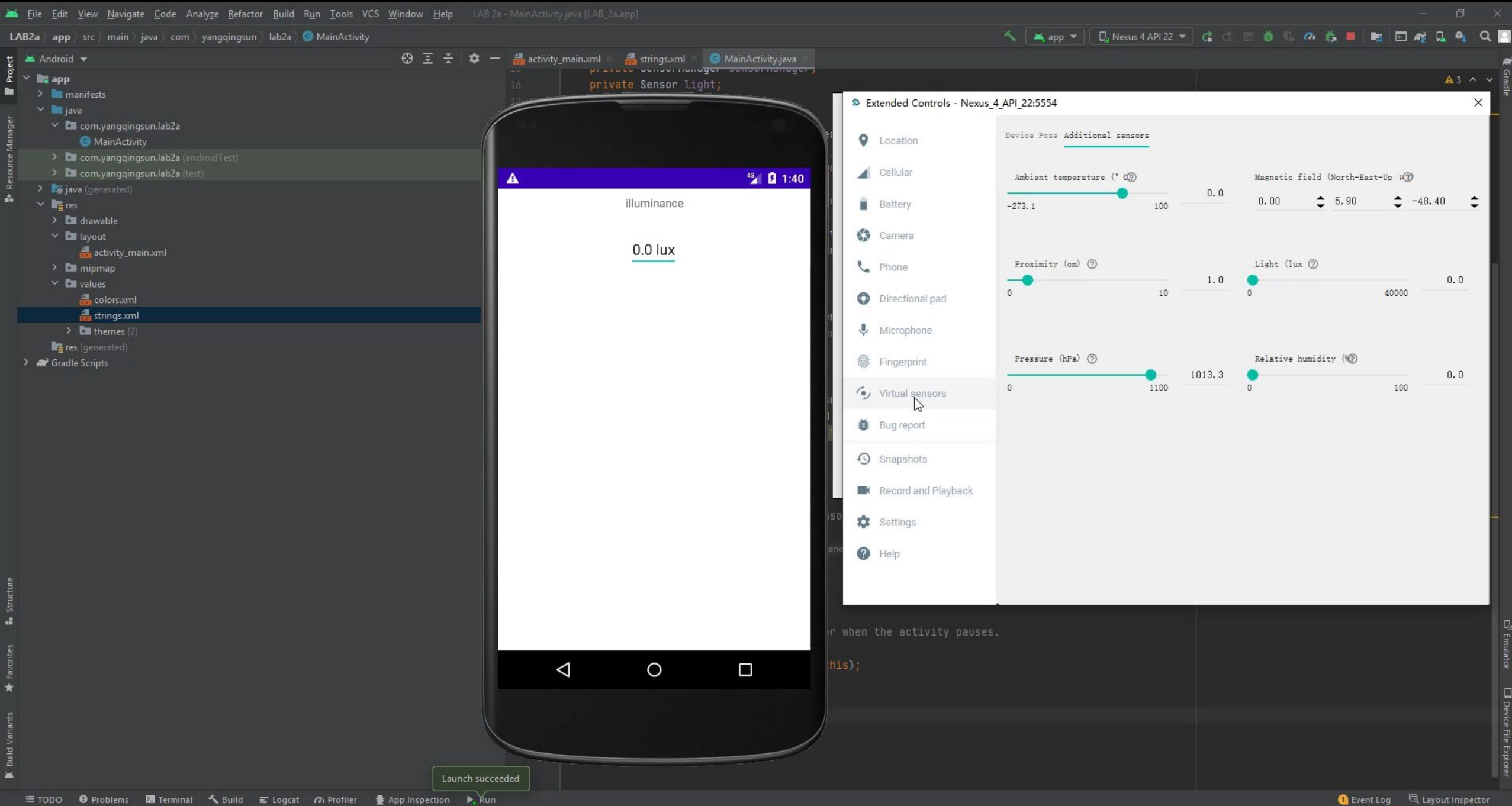
Import GPX/KMLSet Location

Launch succeeded

TODOProblemsTerminalBuildLogcatProfilerApp InspectionRun

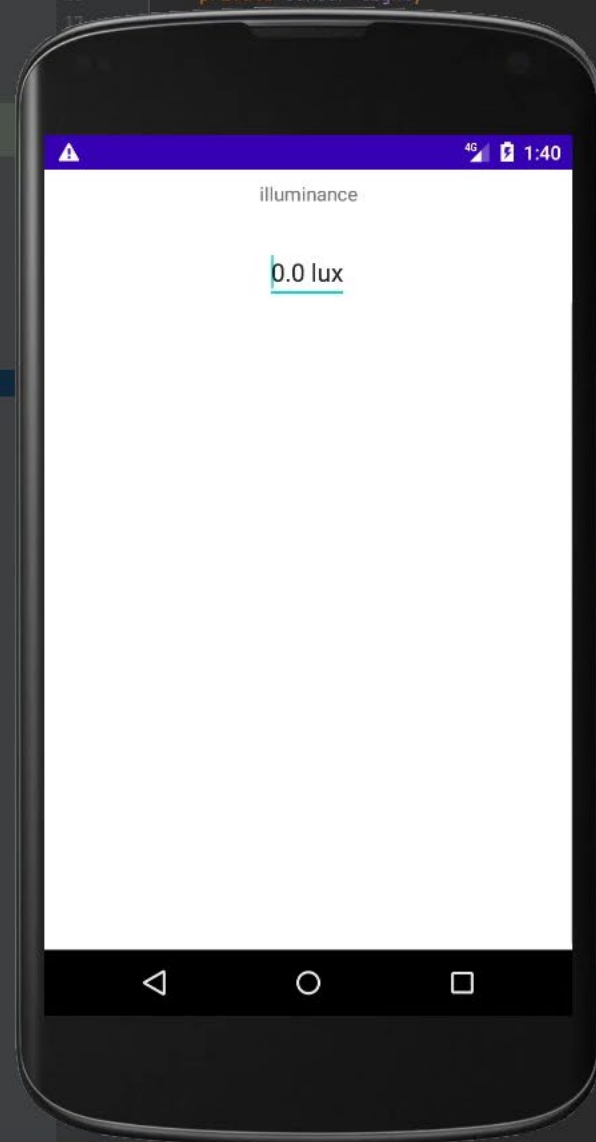
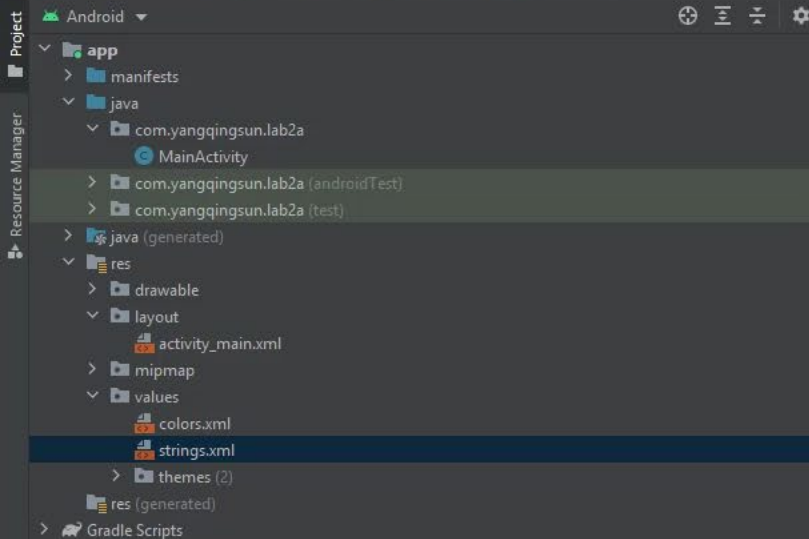
Event LogLayout Inspector





暂停

LAB2a > app > src > main > java > com > yangqingsun > lab2a > MainActivity



Extended Controls - Nexus_4_API_22:5554

Device Pose Additional sensors

Ambient temperature (°C) 0.0

Magnetic field (North-East-Up) 0.00 5.90 -48.40

Proximity (cm) 1.0

Light (lux) 0.0

Pressure (hPa) 1013.3

Relative humidity (%) 0.0

Virtual sensors

Bug report

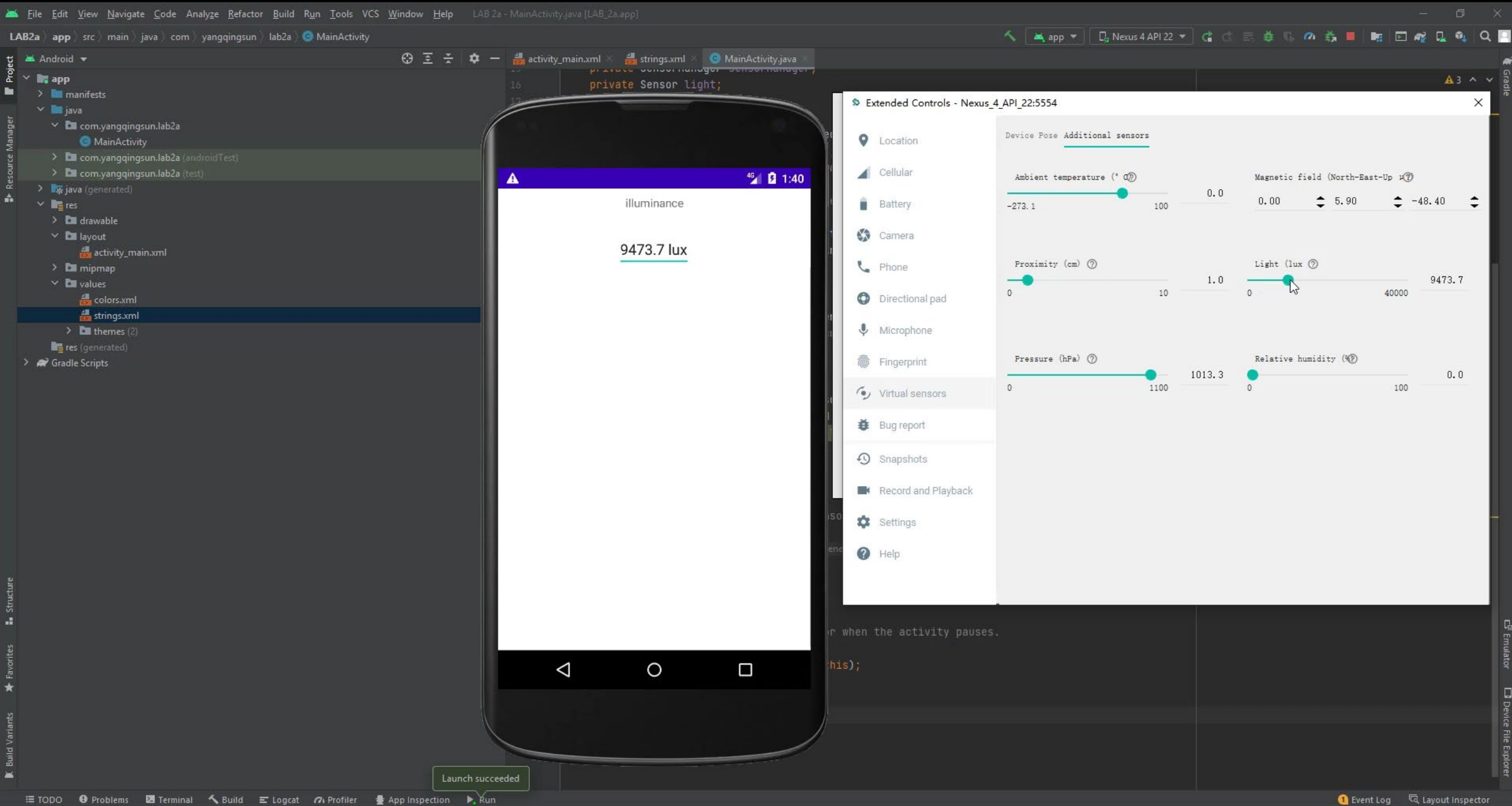
Snapshots

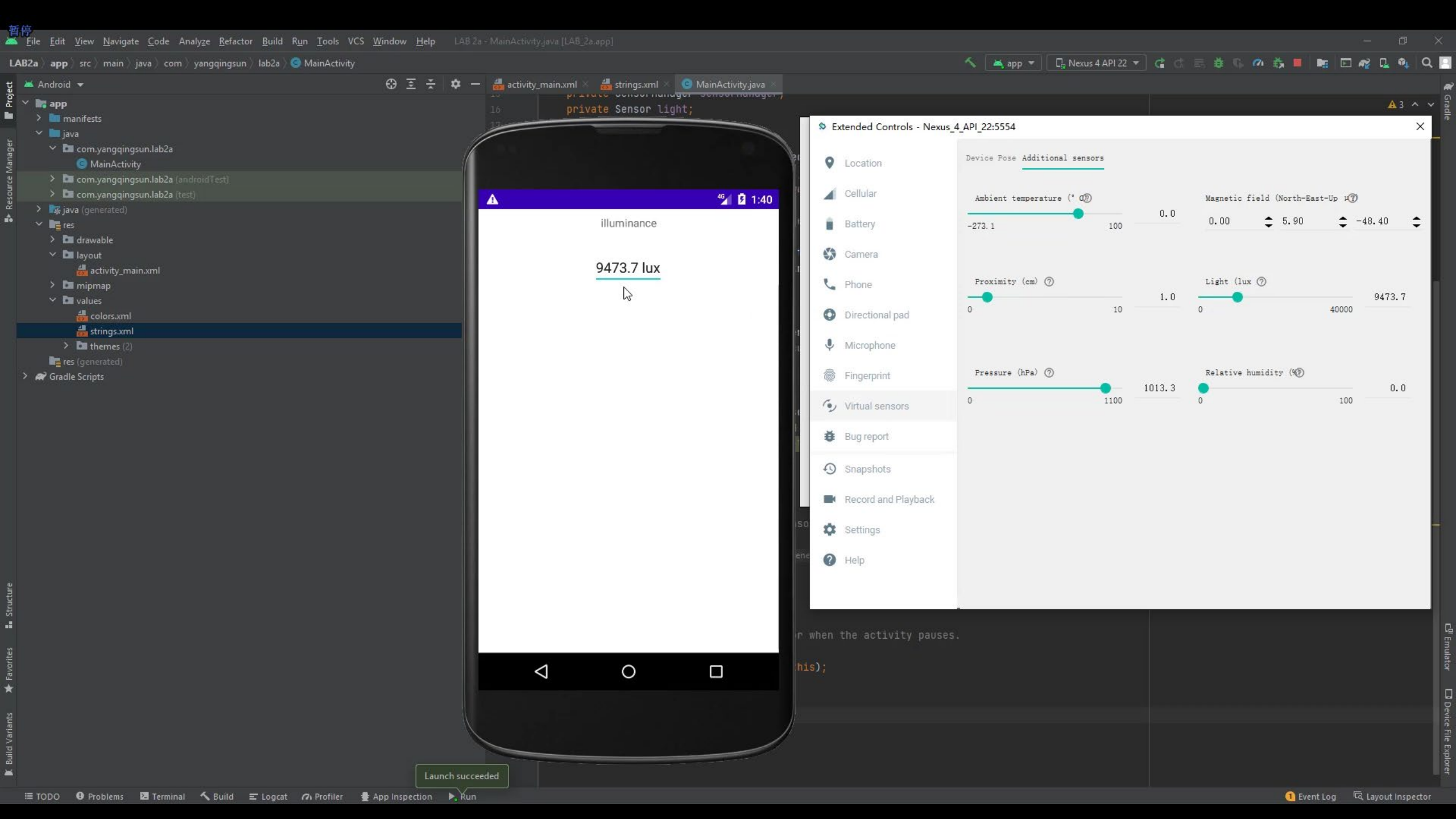
Record and Playback

Settings

Help

Launch succeeded





暂停

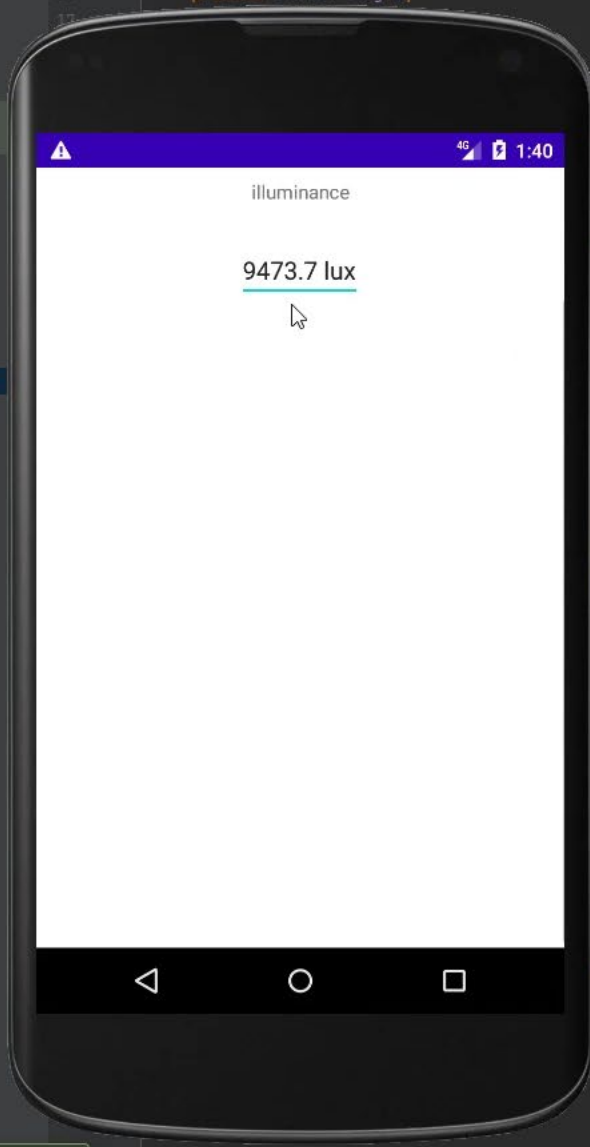
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2a - MainActivity.java [LAB_2a.app]

LAB2a > app > src > main > java > com > yangqingsun > lab2a > MainActivity

Project

- Android
- app
 - manifests
 - java
 - com.yangqingsun.lab2a
 - MainActivity
 - com.yangqingsun.lab2a (androidTest)
 - com.yangqingsun.lab2a (test)
 - java (generated)
 - res
 - drawable
 - layout
 - activity_main.xml
 - mipmap
 - values
 - colors.xml
 - strings.xml
 - themes (2)
 - res (generated)
 - Gradle Scripts

Resource Manager



Extended Controls - Nexus_4_API_22:5554

Device Pose Additional sensors

Ambient temperature (°C) 0.0

Magnetic field (North-East-Up) 0.00 5.90 -48.40

Proximity (cm) 1.0

Light (lux) 9473.7

Pressure (hPa) 1013.3

Relative humidity (%) 0.0

Virtual sensors

- Bug report
- Snapshots
- Record and Playback
- Settings
- Help

Launch succeeded

