Instructions for Lab 2b

CSE 162 - Mobile Computing - Lab

暂停

PicPick

Start
New
Open
Save
Save As
Print
Share
Thumbnails
Close
Options
About

Pick a task...

New task

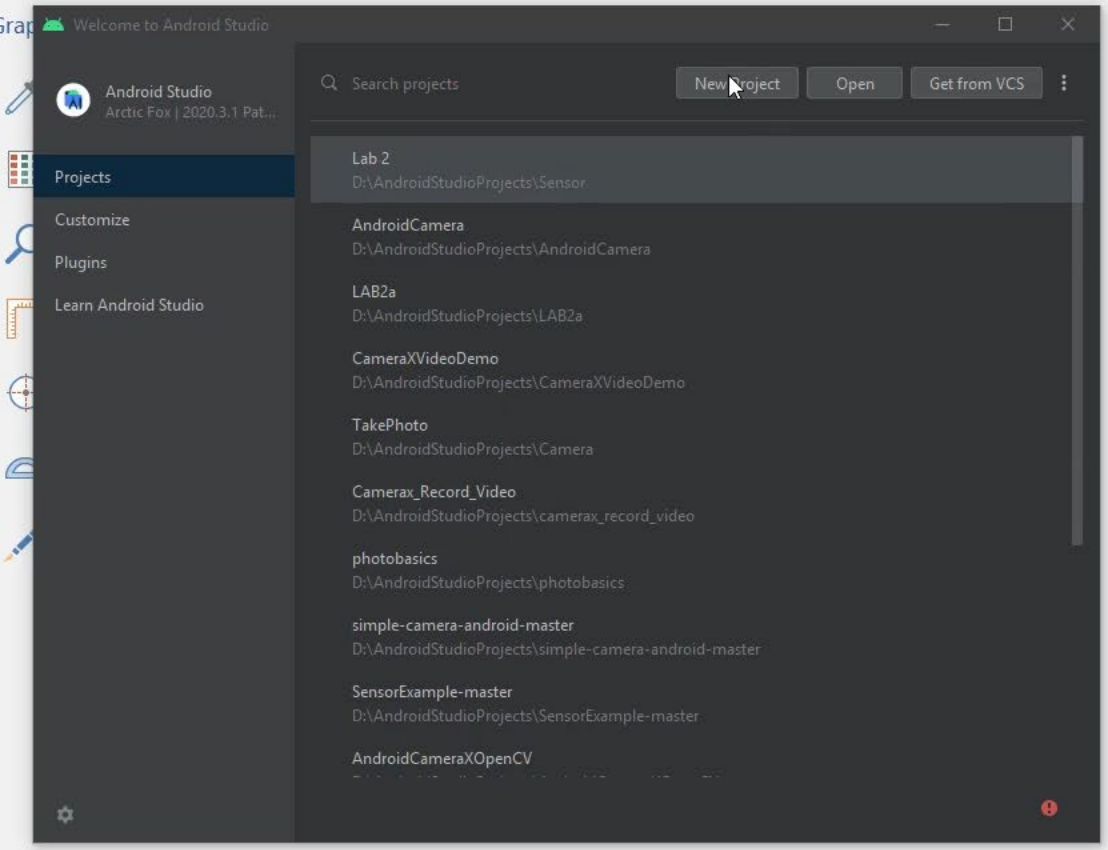
New
Create a new blank image

Open
Open an existing image

Screen Capture

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

Grap



Do not show this window when program starts

暂停

PicPick

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Close
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About

Pick a task...

New task

New
Create a new blank image

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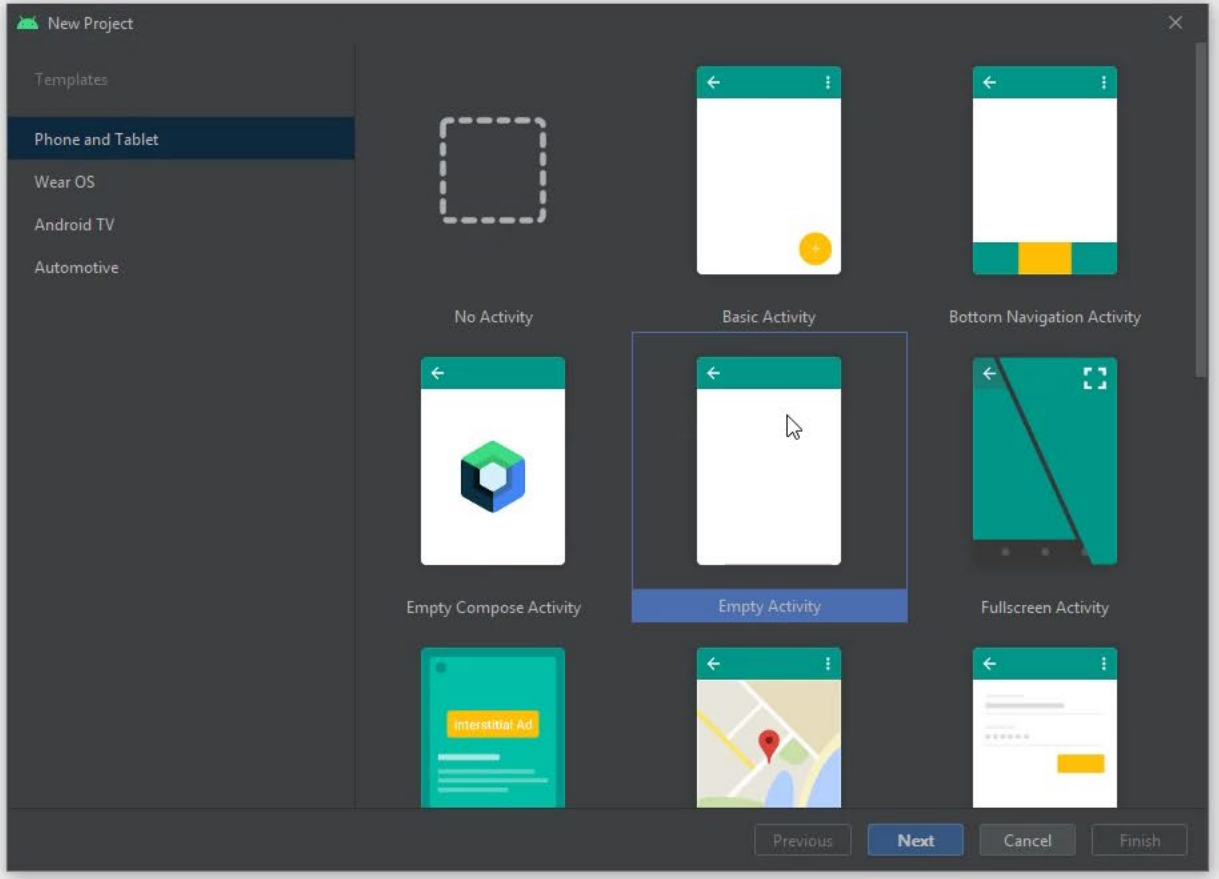
Open an existing image

Screen Capture

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



Do not show this window when program starts

PicPick

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New
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Save
Save As
Print
Share
Thumbnails
Close
Options
About

Pick a task...

New task

New
Create a new blank image

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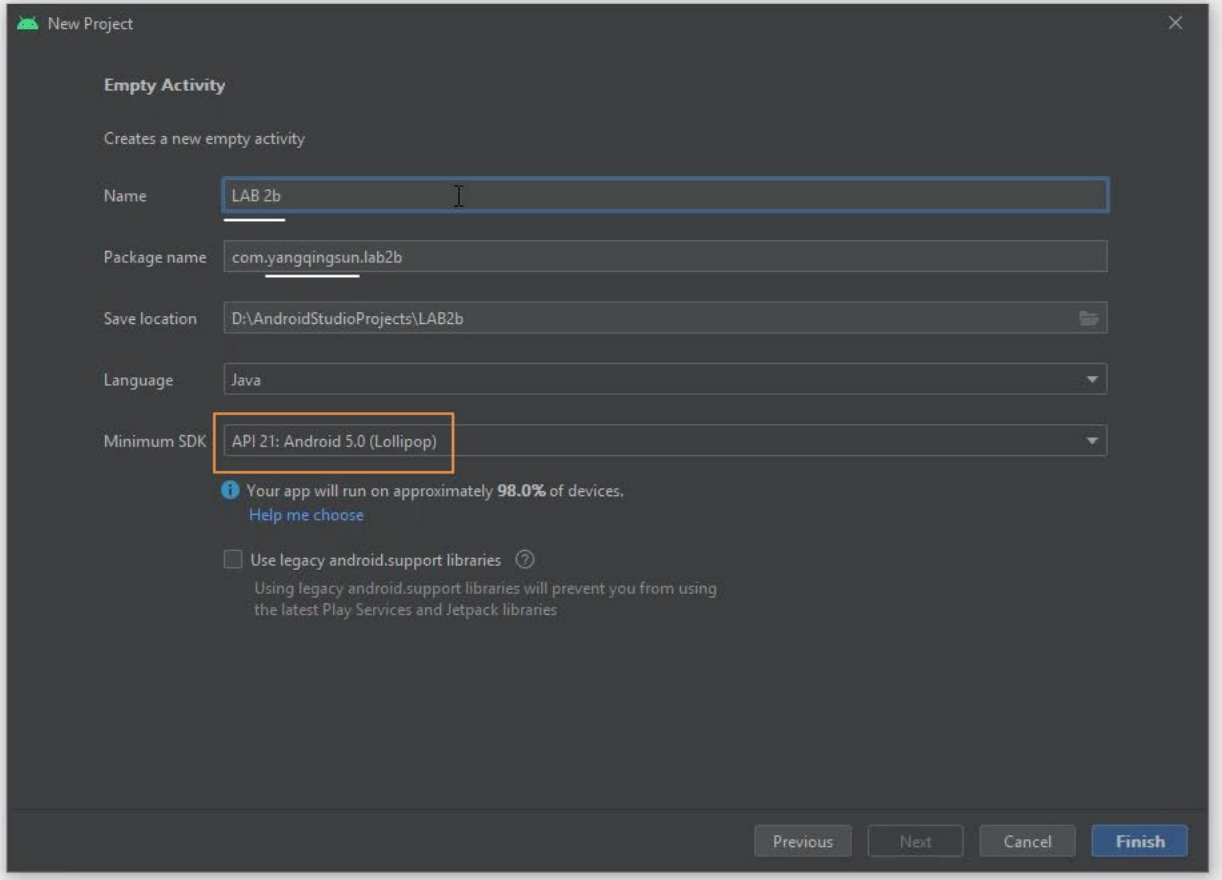
Open an existing image

Screen Capture

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



File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity

app | Nexus 4 API 22

Android

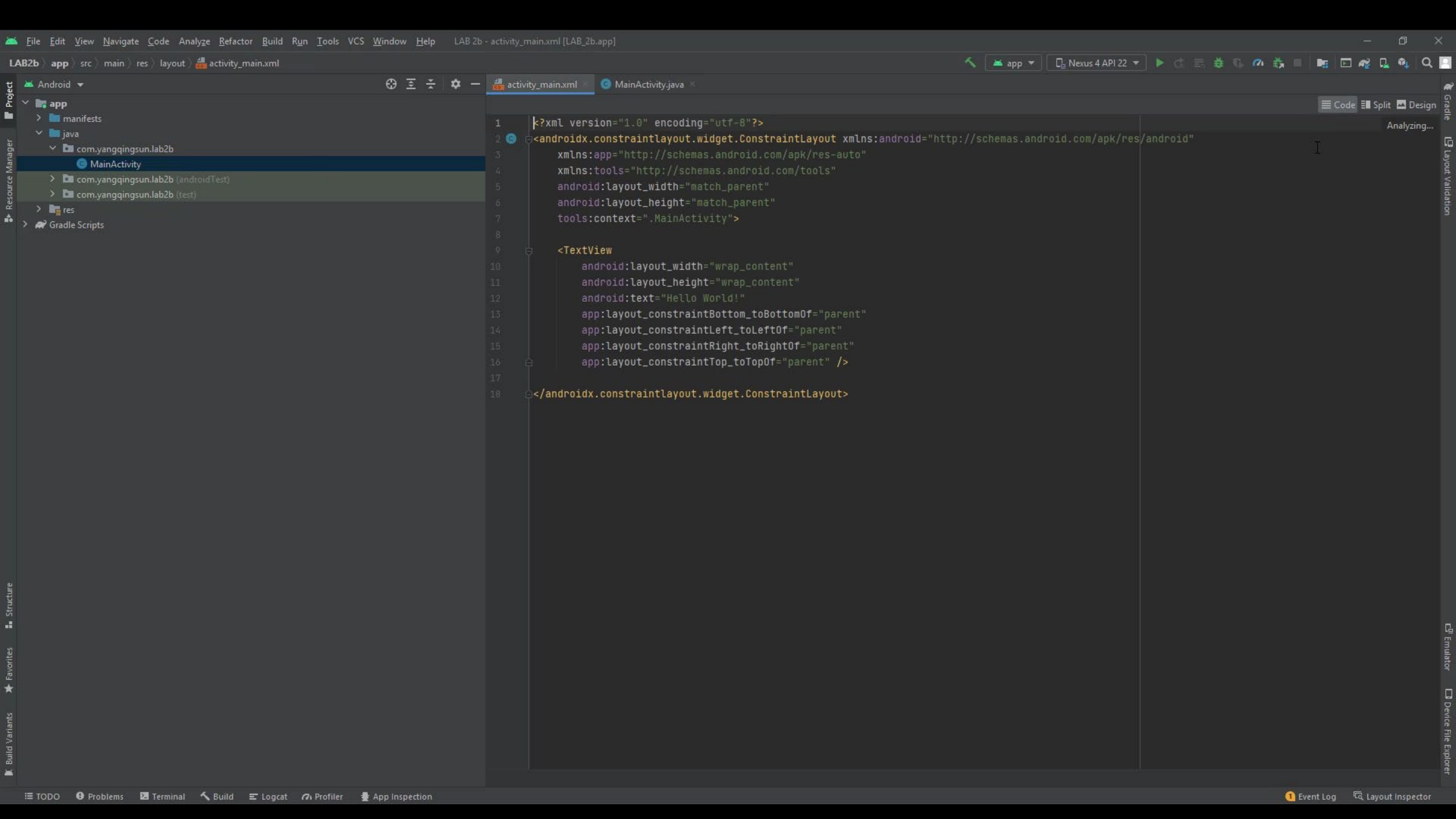
- app
  - manifests
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
- Gradle Scripts

activity_main.xml | MainActivity.java

```
1  package com.yangqingsun.lab2b;
2
3  import ...
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 }
```

Syncing...

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 2b - activity_main.xml [LAB_2b.app]
LAB2b app src main res layout activity_main.xml
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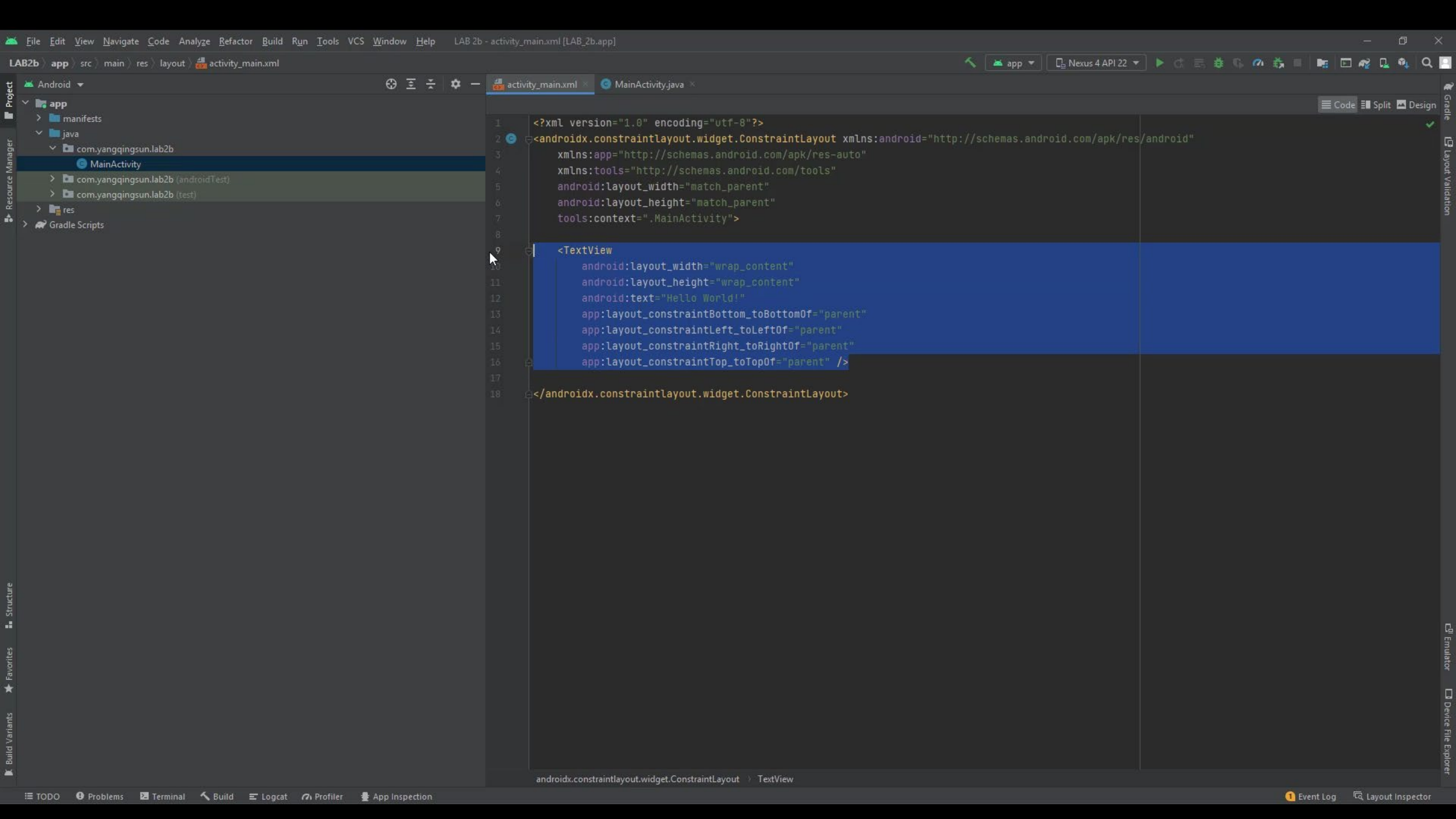
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
Gradle Scripts
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
3 xmlns:app="http://schemas.android.com/apk/res-auto"
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: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>
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 2b - activity_main.xml [LAB_2b.app]
LAB2b app src main res layout activity_main.xml
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MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
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"
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5 android:layout_width="match_parent"
6 android:layout_height="match_parent"
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10 android:layout_width="wrap_content"
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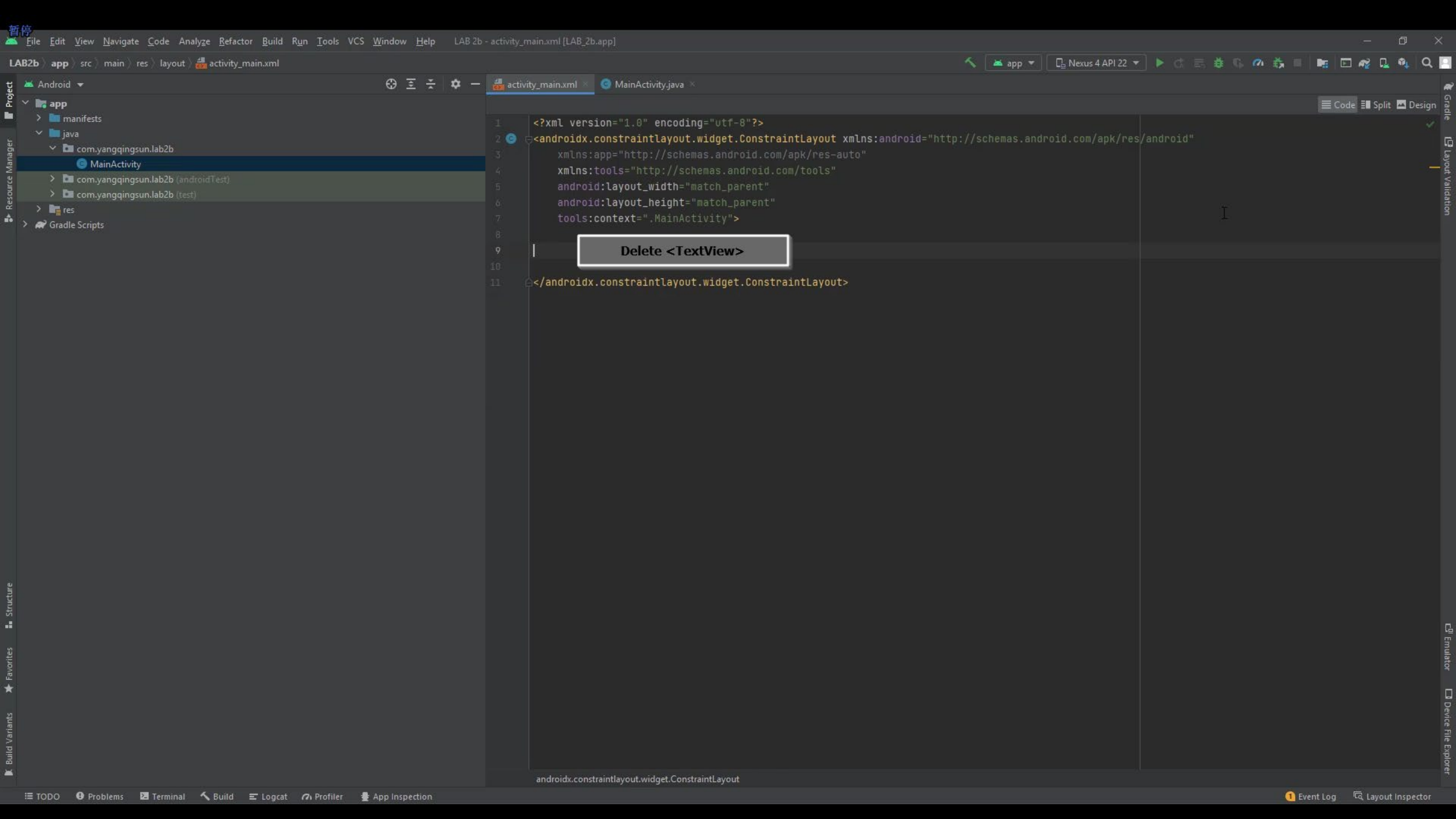
13 app:layout_constraintBottom_toBottomOf="parent"
14 app:layout_constraintLeft_toLeftOf="parent"
15 app:layout_constraintRight_toRightOf="parent"
16 app:layout_constraintTop_toTopOf="parent" />
17
18 </androidx.constraintlayout.widget.ConstraintLayout>
androidx.constraintlayout.widget.ConstraintLayout TextView
TODO Problems Terminal Build Logcat Profiler App Inspection
Event Log Layout Inspector
Project Resource Manager Structure Favorites Build Variants
Gradle Layout Validation Emulator Device File Explorer


暂停
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - activity_main.xml [LAB_2b.app]
LAB2b app src main res layout activity_main.xml
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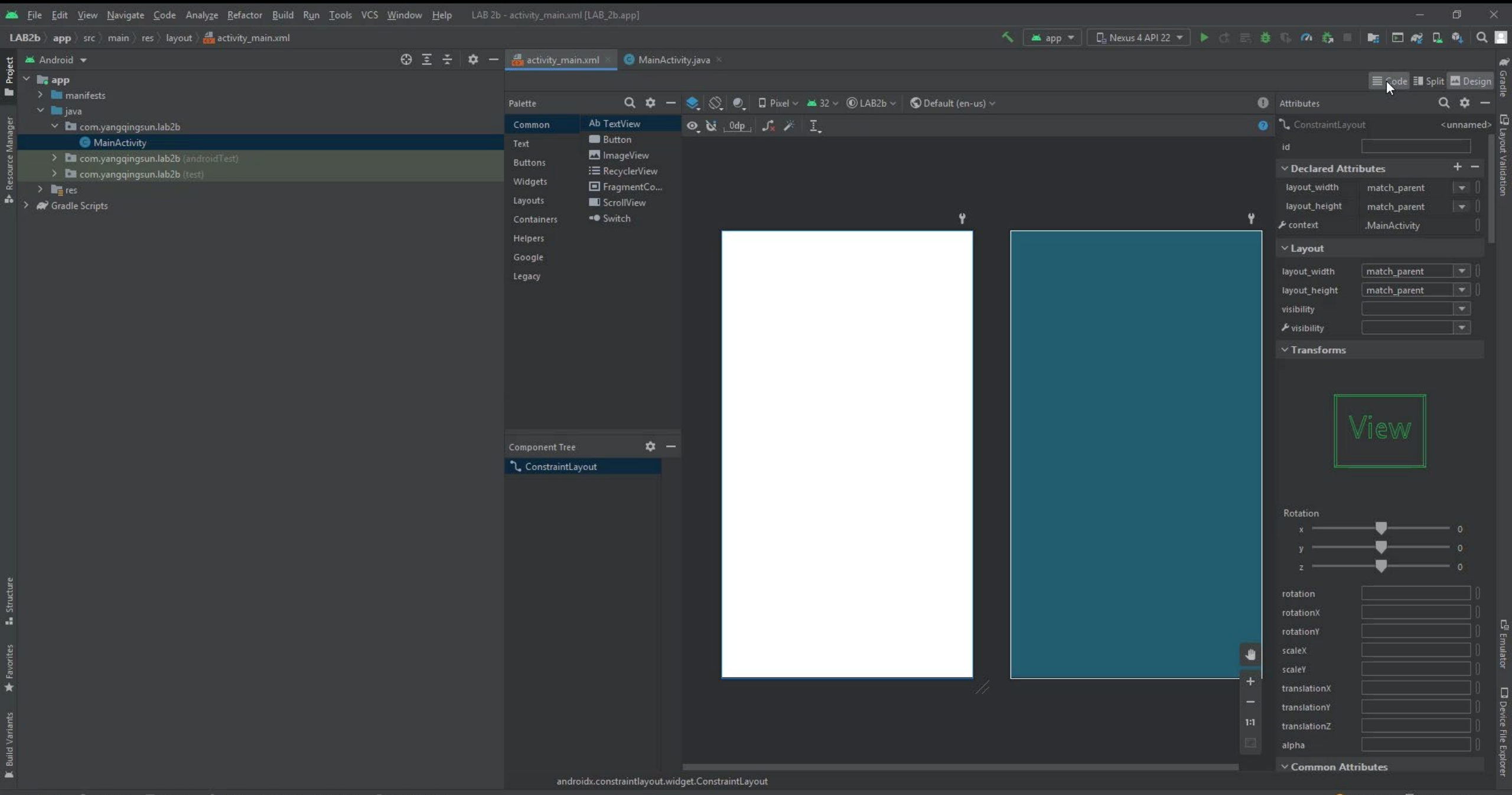
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
Gradle Scripts
activity_main.xml
MainActivity.java
Code Split Design
1 <?xml version="1.0" encoding="utf-8"?>
2 <androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
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
10
11 </androidx.constraintlayout.widget.ConstraintLayout>
Delete <TextView>
androidx.constraintlayout.widget.ConstraintLayout
TODO Problems Terminal Build Logcat Profiler App Inspection
Event Log Layout Inspector
Project Resource Manager Structure Favorites Build Variants
Gradle Layout Validation Emulator Device File Explorer


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - activity_main.xml [LAB_2b.app]
LAB2b app src main res layout activity_main.xml
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com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
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Layouts
Containers
Helpers
Google
Legacy
Ab TextView
Button
ImageView
RecyclerView
FragmentCo...
ScrollView
Switch
Pixel
32
LAB2b
Default (en-us)
0dp
Component Tree
ConstraintLayout
Attributes
ConstraintLayout
<unnamed>
id
Declared Attributes
layout_width
match_parent
layout_height
match_parent
context
.MainActivity
Layout
layout_width
match_parent
layout_height
match_parent
visibility
visibility
Transforms
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rotationY
scaleX
scaleY
translationX
translationY
translationZ
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androidx.constraintlayout.widget.ConstraintLayout
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暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - activity_main.xml [LAB_2b.app]

LAB2b › app › src › main › res › layout › activity_main.xml

app | Nexus 4 API 22

Android

- app
  - manifests
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
- Gradle Scripts

activity_main.xml | MainActivity.java

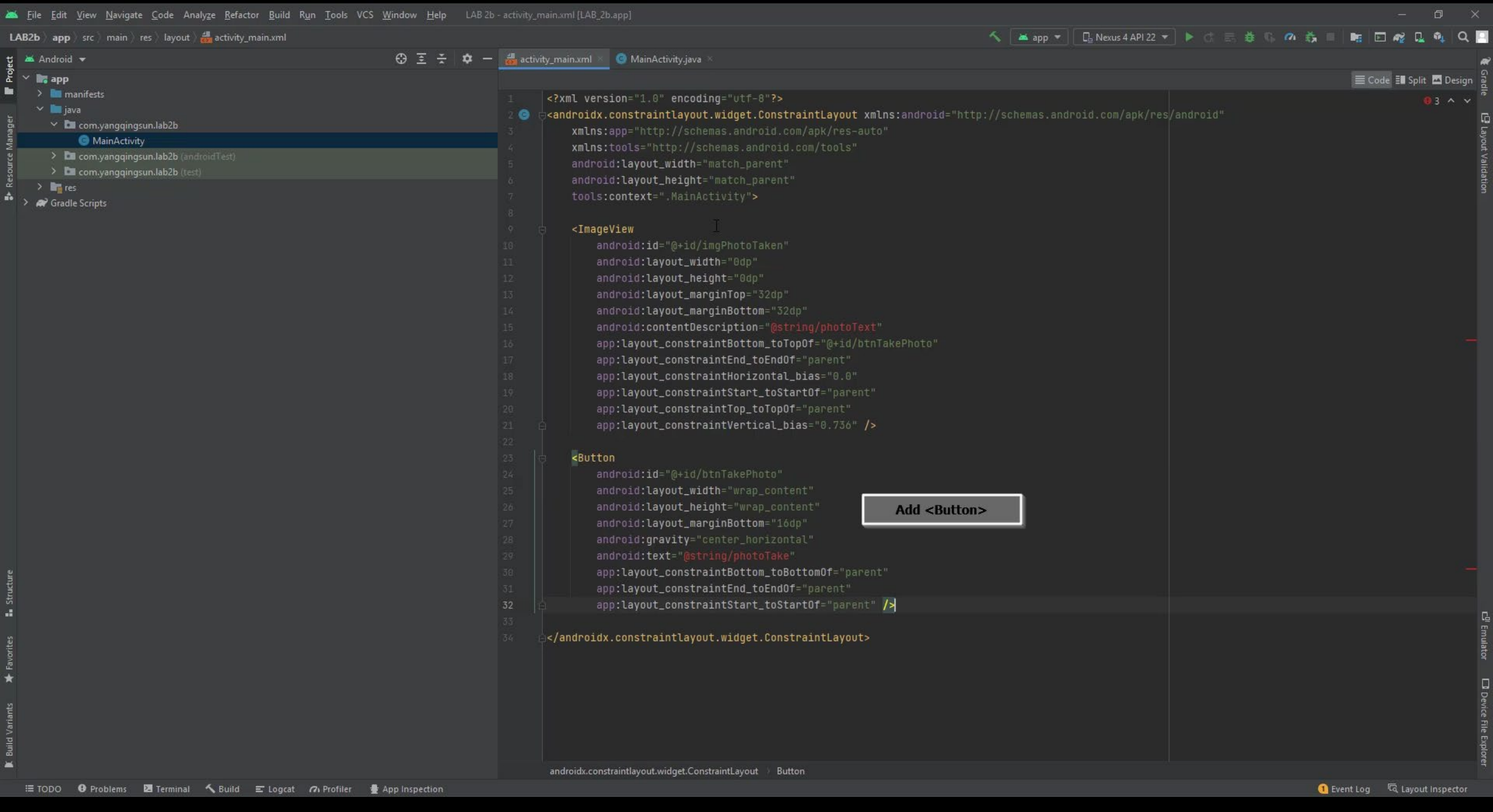
Code | Split | Design

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imgPhotoTaken"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginTop="32dp"
        android:layout_marginBottom="32dp"
        android:contentDescription="@string/photoText"
        app:layout_constraintBottom_toTopOf="@+id/btnTakePhoto"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.736" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Add <ImageView>

androidx.constraintlayout.widget.ConstraintLayout › ImageView

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 2b - activity_main.xml [LAB_2b.app]
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com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
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MainActivity.java
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<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
<ImageView
android:id="@+id/imgPhotoTaken"
android:layout_width="0dp"
android:layout_height="0dp"
android:layout_marginTop="32dp"
android:layout_marginBottom="32dp"
android:contentDescription="@string/photoText"
app:layout_constraintBottom_toTopOf="@+id/btnTakePhoto"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.0"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.736" />
<Button
android:id="@+id/btnTakePhoto"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginBottom="16dp"
android:gravity="center_horizontal"
android:text="@string/photoTake"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
Add <Button>
androidx.constraintlayout.widget.ConstraintLayout
Button
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Profiler
App Inspection
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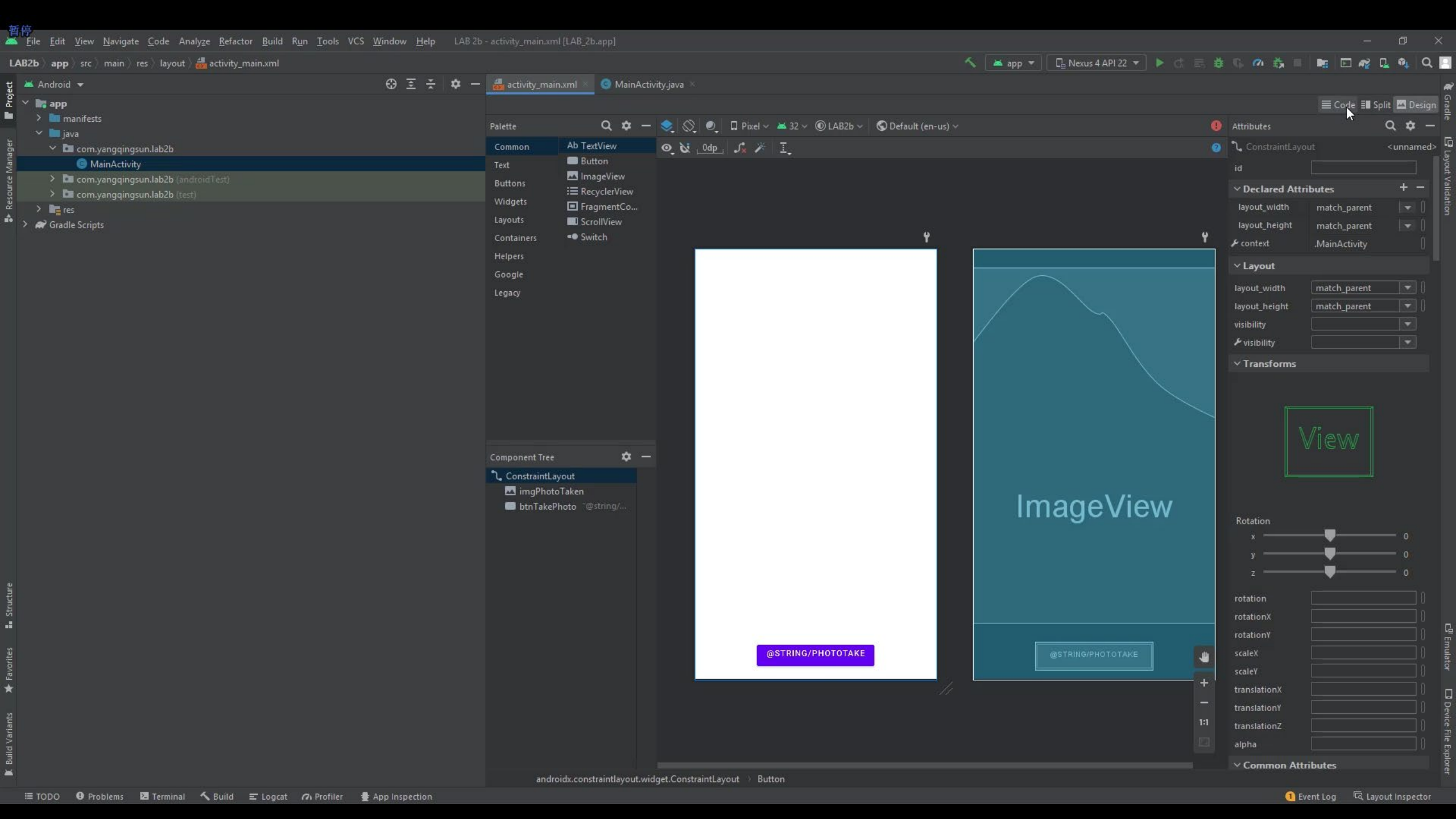
Layout Inspector


暂停
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - activity_main.xml [LAB_2b.app]
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Legacy
Ab TextView
Button
ImageView
RecyclerView
FragmentCo...
ScrollView
Switch
Pixel
32
LAB2b
Default (en-us)
0dp
Component Tree
ConstraintLayout
imgPhotoTaken
btnTakePhoto "@string/...
@STRING/PHOTOTAKE
ImageView
@STRING/PHOTOTAKE
Attributes
ConstraintLayout
<unnamed>
id
Declared Attributes
layout_width match_parent
layout_height match_parent
context .MainActivity
Layout
layout_width match_parent
layout_height match_parent
visibility
visibility
Transforms
View
Rotation
x 0
y 0
z 0
rotation
rotationX
rotationY
scaleX
scaleY
translationX
translationY
translationZ
alpha
Common Attributes
androidx.constraintlayout.widget.ConstraintLayout Button
TODO Problems Terminal Build Logcat Profiler App Inspection
Event Log Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - activity_main.xml [LAB_2b.app]

LAB2b › app › src › main › res › layout › activity_main.xml

app | Nexus 4 API 22

Android

- app
  - manifests
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
- Gradle Scripts

activity_main.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      <ImageView
10         android:id="@+id/imgPhotoTaken"
11         android:layout_width="0dp"
12         android:layout_height="0dp"
13         android:layout_marginTop="32dp"
14         android:layout_marginBottom="32dp"
15         android:contentDescription="@string/photoText"
16         app:layout_constraintBottom_toTopOf="@+id/btnTakePhoto"
17         app:layout_constraintEnd_toEndOf="parent"
18         app:layout_constraintHorizontal_bias="0.0"
19         app:layout_constraintStart_toStartOf="parent"
20         app:layout_constraintTop_toTopOf="parent"
21         app:layout_constraintVertical_bias="0.736" />
22
23     <Button
24         android:id="@+id/btnTakePhoto"
25         android:layout_width="wrap_content"
26         android:layout_height="wrap_content"
27         android:layout_marginBottom="16dp"
28         android:gravity="center_horizontal"
29         android:text="@string/photoTake"
30         app:layout_constraintBo
31         app:layout_constraintEn
32         app:layout_constraintSt
33
34 </androidx.constraintlayout.widget.ConstraintLayout>
```

Cannot resolve symbol '@string/photoTake'

Create string value resource 'photoTake' Alt+Shift+Enter More actions... Alt+Enter

androidx.constraintlayout.widget.ConstraintLayout › Button

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - activity_main.xml [LAB_2b.app]

LAB2b › app › src › main › res › layout › activity_main.xml

app | Nexus 4 API 22

Android

- app
  - manifests
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
- Gradle Scripts

activity_main.xml | MainActivity.java

Code | Split | Design

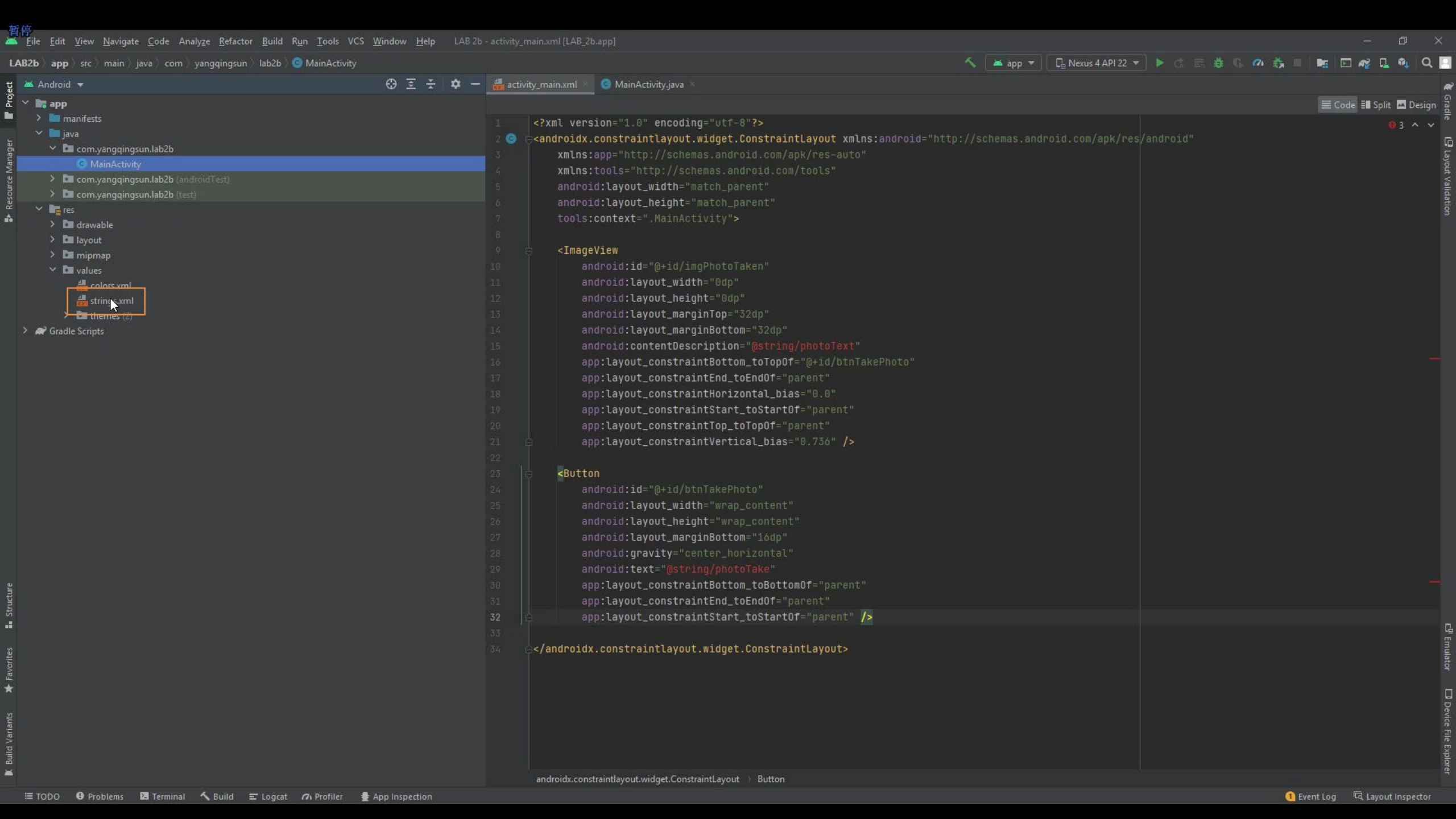
```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imgPhotoTaken"
        android:layout_width="0dp"
        android:layout_height="0dp"
        android:layout_marginTop="32dp"
        android:layout_marginBottom="32dp"
        android:contentDescription="@string/photoText"
        app:layout_constraintBottom_toTopOf=
        app:layout_constraintEnd_toEndOf="pa
        app:layout_constraintHorizontal_bias
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.736" />

    <Button
        android:id="@+id/btnTakePhoto"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="16dp"
        android:gravity="center_horizontal"
        android:text="@string/photoTake"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Cannot resolve symbol '@string/photoText'

Create string value resource 'photoText' Alt+Shift+Enter More actions... Alt+Enter

androidx.constraintlayout.widget.ConstraintLayout › Button

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector


暂停
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - activity_main.xml [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity
app
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app
manifests
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
Gradle Scripts
activity_main.xml
MainActivity.java
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3
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
<ImageView
android:id="@+id/imgPhotoTaken"
android:layout_width="0dp"
android:layout_height="0dp"
android:layout_marginTop="32dp"
android:layout_marginBottom="32dp"
android:contentDescription="@string/photoText"
app:layout_constraintBottom_toTopOf="@+id/btnTakePhoto"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.0"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.736" />
<Button
android:id="@+id/btnTakePhoto"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginBottom="16dp"
android:gravity="center_horizontal"
android:text="@string/photoTake"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
androidx.constraintlayout.widget.ConstraintLayout Button
TODO Problems Terminal Build Logcat Profiler App Inspection
Event Log Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - strings.xml [LAB_2b.app]

LAB2b › app › src › main › res › values › strings.xml

app Nexus 4 API 22

Android

- app
  - manifests
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
    - themes (2)
- Gradle Scripts

activity_main.xml | strings.xml | MainActivity.java

Edit translations for all locales in the translations editor. Open editor Hide notification

```
1  <resources>
2      <string name="app_name">LAB 2b</string>
3  </resources>
```

resources

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 2b - strings.xml [LAB_2b.app]

LAB2b > app > src > main > res > values > strings.xml

app | Nexus 4 API 22

Android

- app
  - manifests
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
- Gradle Scripts

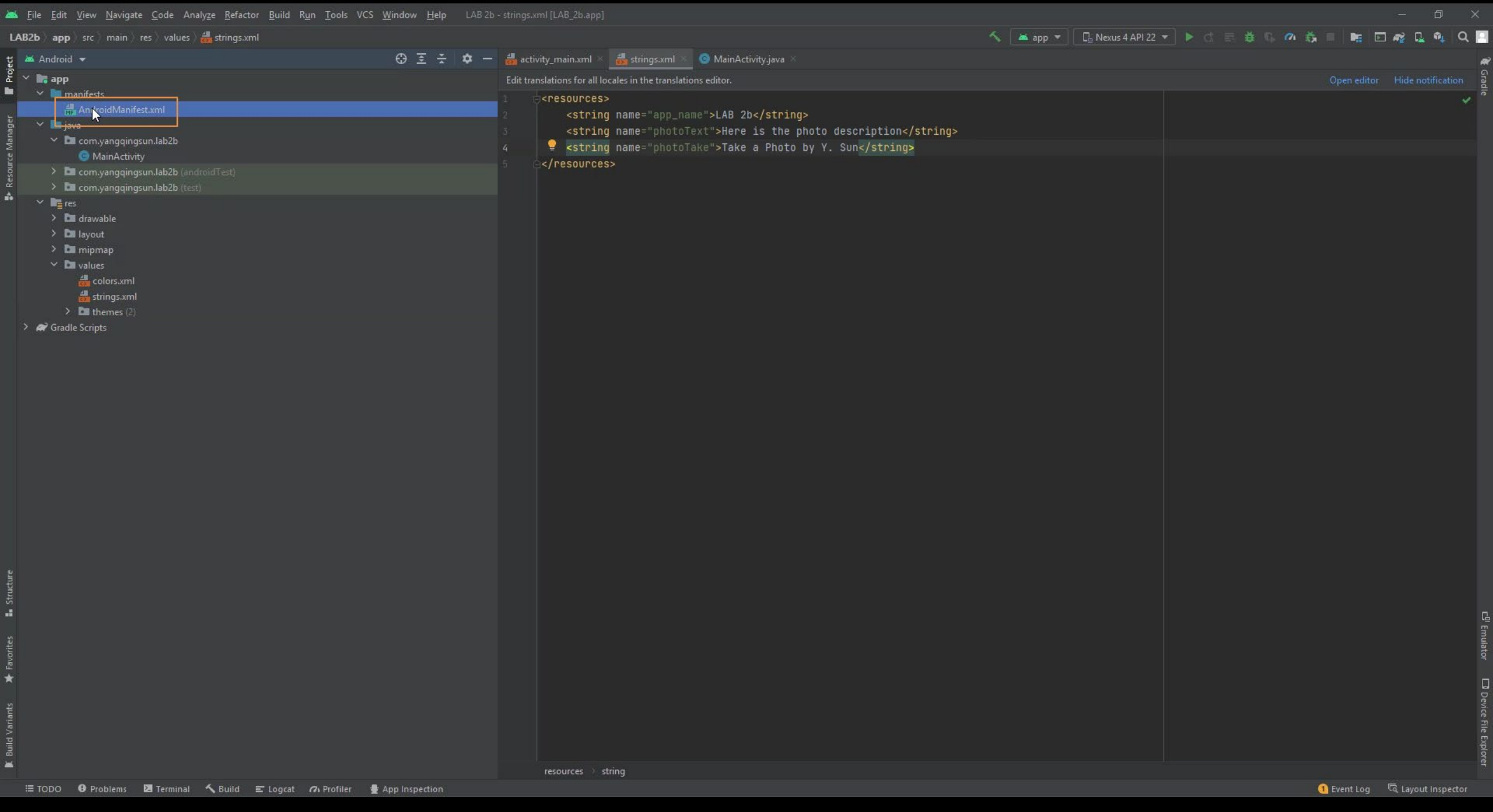
activity_main.xml | strings.xml | MainActivity.java

Edit translations for all locales in the translations editor. Open editor Hide notification

```
<resources>
    <string name="app_name">LAB 2b</string>
    <string name="photoText">Here is the photo description</string>
    <string name="photoTake">Take a Photo by Y. Sun</string>
</resources>
```

resources > string

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 2b - strings.xml [LAB_2b.app]
LAB2b app src main res values strings.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
Gradle Scripts
activity_main.xml
strings.xml
MainActivity.java
Edit translations for all locales in the translations editor.
Open editor
Hide notification
1 <resources>
2 <string name="app_name">LAB 2b</string>
3 <string name="photoText">Here is the photo description</string>
4 <string name="photoTake">Take a Photo by Y. Sun</string>
5 </resources>
resources string
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 2b - AndroidManifest.xml [LAB_2b.app]

LAB2b > app > src > main > AndroidManifest.xml

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | MainActivity.java

```
1  <?xml version="1.0" encoding="utf-8"?>
2  <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3      package="com.yangqingsun.lab2b">
4
5      <application
6          android:allowBackup="true"
7          android:icon="@mipmap/ic_launcher"
8          android:label="LAB 2b"
9          android:roundIcon="@mipmap/ic_launcher_round"
10         android:supportsRtl="true"
11         android:theme="@style/Theme.LAB2b">
12         <activity
13             android:name=".MainActivity"
14             android:exported="true">
15             <intent-filter>
16                 <action android:name="android.intent.action.MAIN" />
17
18                 <category android:name="android.intent.category.LAUNCHER" />
19             </intent-filter>
20         </activity>
21     </application>
22
23 </manifest>
```

Text | Merged Manifest

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - AndroidManifest.xml [LAB_2b.app]

LAB2b › app › src › main › AndroidManifest.xml

app Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | MainActivity.java

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.yangqingsun.lab2b">

    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"
        android:maxSdkVersion="18" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="LAB 2b"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.LAB2b">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

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

</manifest>
```

WRITE_EXTERNAL_STORAGE

manifest › uses-permission

Text | Merged Manifest

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 2b - AndroidManifest.xml [LAB_2b.app]

LAB2b › app › src › main › AndroidManifest.xml

app Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
  - Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | MainActivity.java

```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.yangqingsun.lab2b">

    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"
        android:maxSdkVersion="18" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="LAB 2b"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.LAB2b">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <provider
            android:name="androidx.core.content.FileProvider"
            android:authorities="com.yangqingsun.android.fireproof"
            android:exported="false"
            android:grantUriPermissions="true">
            <meta-data
                android:name="android.support.FILE_PROVIDER_PATHS"
                android:resource="@xml/file_paths" />
        </provider>
    </application>

</manifest>
```

FileProvider

manifest › application › provider

Text | Merged Manifest

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 2b - AndroidManifest.xml [LAB_2b.app]

LAB2b › app › src › main › AndroidManifest.xml

app Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
  - Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | MainActivity.java

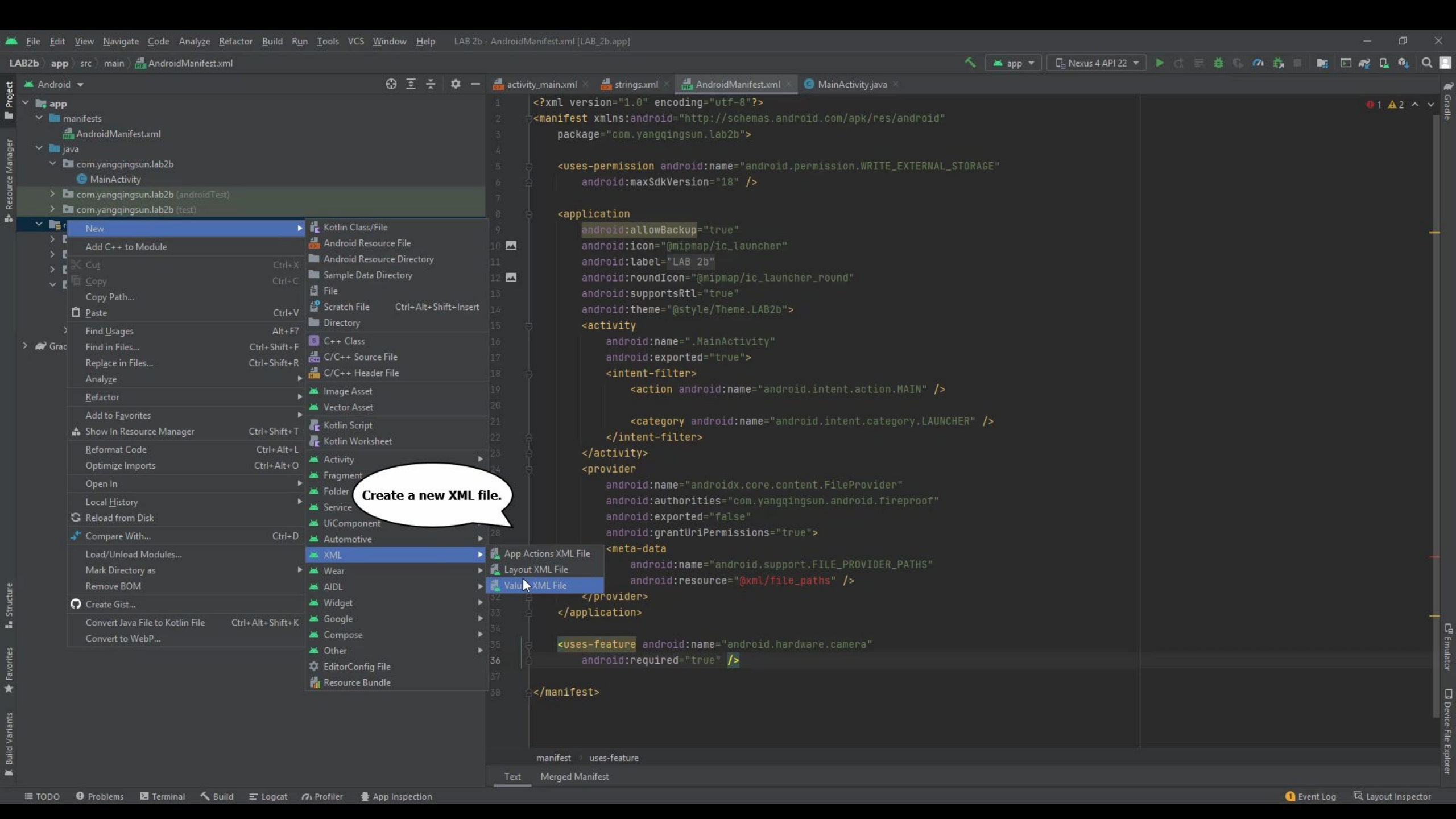
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.yangqingsun.lab2b">

    <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"
        android:maxSdkVersion="18" />

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="LAB 2b"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.LAB2b">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
        <provider
            android:name="androidx.core.content.FileProvider"
            android:authorities="com.yangqingsun.android.fireproof"
            android:exported="false"
            android:grantUriPermissions="true">
            <meta-data
                android:name="android.support.FILE_PROVIDER_PATHS"
                android:resource="@xml/file_paths" />
        </provider>
    </application>

    <uses-feature android:name="android.hardware.camera"
        android:required="true" />

</manifest>
```

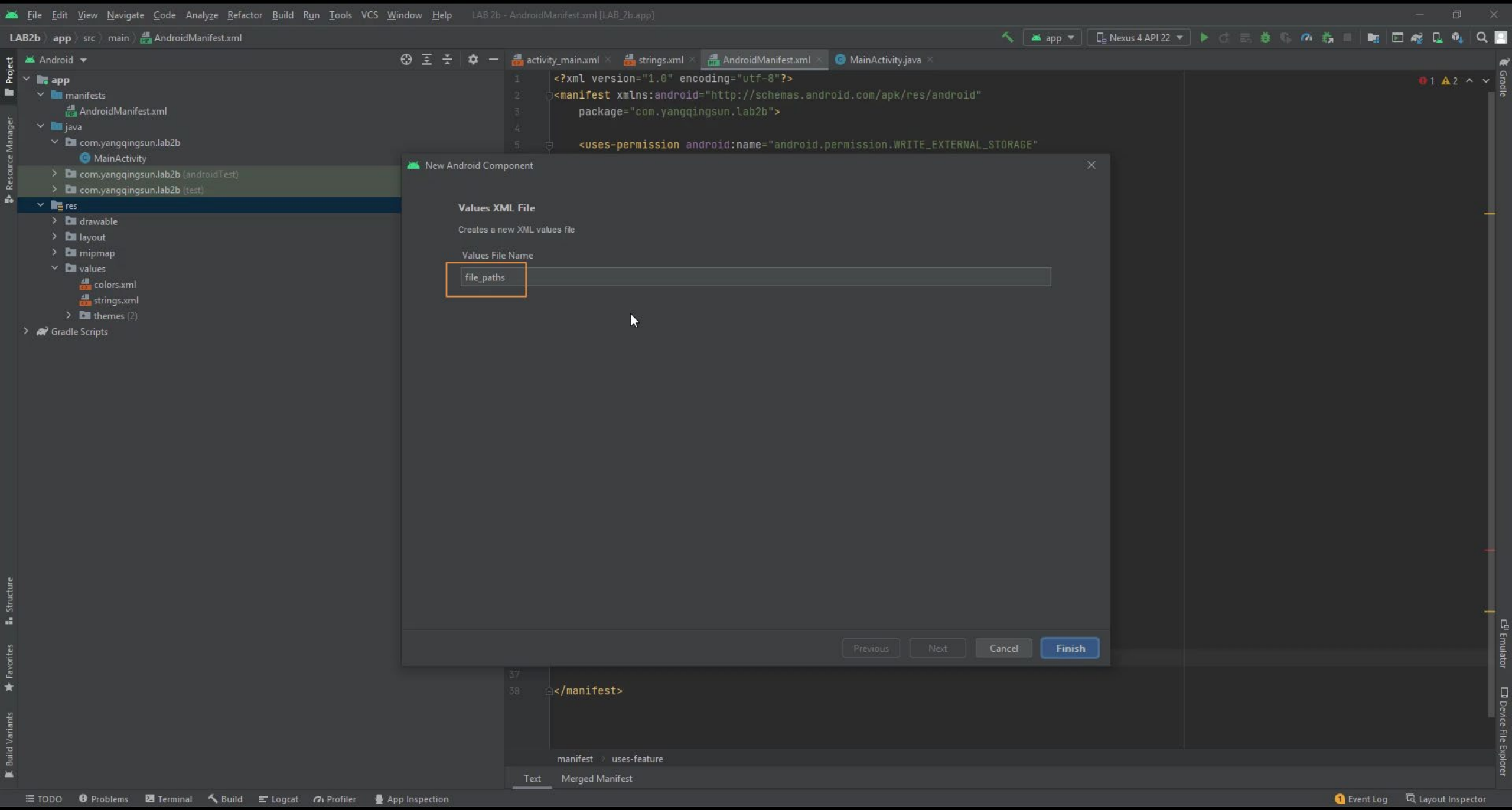
hardware

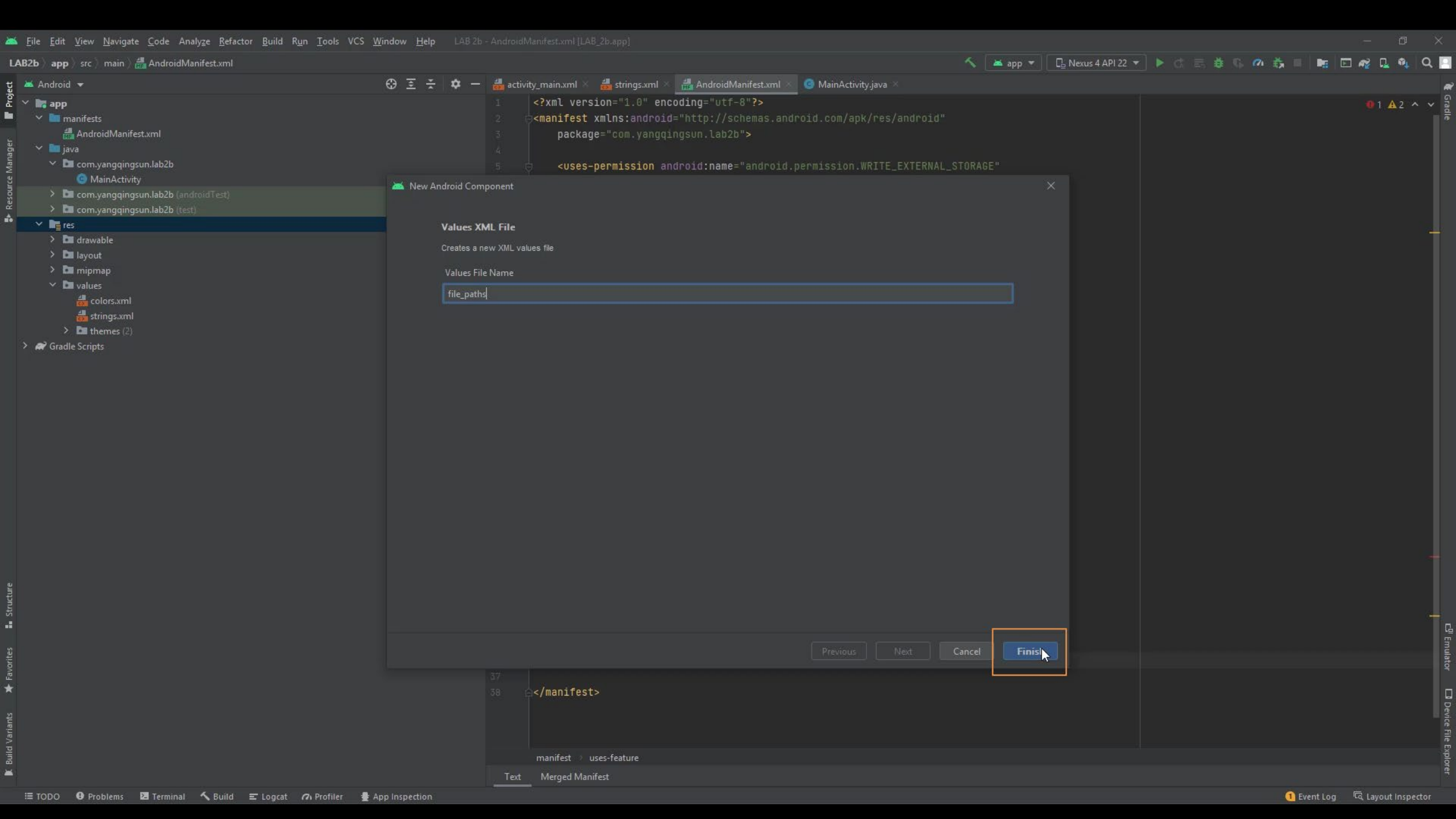
manifest › uses-feature

Text | Merged Manifest

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 2b - AndroidManifest.xml [LAB_2b.app]
LAB2b app src main AndroidManifest.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
activity_main.xml
strings.xml
AndroidManifest.xml
MainActivity.java
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
package="com.yangqingsun.lab2b">
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"
android:maxSdkVersion="18" />
<application
android:allowBackup="true"
android:icon="@mipmap/ic_launcher"
android:label="LAB 2b"
android:roundIcon="@mipmap/ic_launcher_round"
android:supportsRtl="true"
android:theme="@style/Theme.LAB2b">
<activity
android:name=".MainActivity"
android:exported="true">
<intent-filter>
<action android:name="android.intent.action.MAIN" />
<category android:name="android.intent.category.LAUNCHER" />
</intent-filter>
</activity>
<provider
android:name="androidx.core.content.FileProvider"
android:authorities="com.yangqingsun.android.fireproof"
android:exported="false"
android:grantUriPermissions="true">
<meta-data
android:name="android.support.FILE_PROVIDER_PATHS"
android:resource="@xml/file_paths" />
</provider>
</application>
<uses-feature android:name="android.hardware.camera"
android:required="true" />
</manifest>
New
Add C++ to Module
Cut Ctrl+X
Copy Ctrl+C
Copy Path...
Paste Ctrl+V
Find Usages Alt+F7
Find in Files... Ctrl+Shift+F
Replace in Files... Ctrl+Shift+R
Analyze
Refactor
Add to Favorites
Show In Resource Manager Ctrl+Shift+T
Reformat Code Ctrl+Alt+L
Optimize Imports Ctrl+Alt+O
Open In
Local History
Reload from Disk
Compare With... Ctrl+D
Load/Unload Modules...
Mark Directory as
Remove BOM
Create Gist...
Convert Java File to Kotlin File Ctrl+Alt+Shift+K
Convert to WebP...
Kotlin Class/File
Android Resource File
Android Resource Directory
Sample Data Directory
File
Scratch File Ctrl+Alt+Shift+Insert
Directory
C++ Class
C/C++ Source File
C/C++ Header File
Image Asset
Vector Asset
Kotlin Script
Kotlin Worksheet
Activity
Fragment
Folder
Service
UiComponent
Automotive
XML
Wear
AIDL
Widget
Google
Compose
Other
EditorConfig File
Resource Bundle
App Actions XML File
Layout XML File
Value XML File
Create a new XML file.
manifest uses-feature
Text Merged Manifest
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 2b - AndroidManifest.xml [LAB_2b.app]
LAB2b app src main AndroidManifest.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
MainActivity.java
1 <?xml version="1.0" encoding="utf-8"?>
2 <manifest xmlns:android="http://schemas.android.com/apk/res/android"
3 package="com.yangqingsun.lab2b">
4
5 <uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"
New Android Component
Values XML File
Creates a new XML values file
Values File Name
file_paths
Previous
Next
Cancel
Finish
37
38 </manifest>
manifest uses-feature
Text
Merged Manifest
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 2b - AndroidManifest.xml [LAB_2b.app]
LAB2b app src main AndroidManifest.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
MainActivity.java
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
package="com.yangqingsun.lab2b">
<uses-permission android:name="android.permission.WRITE_EXTERNAL_STORAGE"
New Android Component
Values XML File
Creates a new XML values file
Values File Name
file_paths
Previous
Next
Cancel
Finish
</manifest>
manifest
uses-feature
Text
Merged Manifest
TODO
Problems
Terminal
Build
Logcat
Profiler
App Inspection
Event Log
Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - file_paths.xml [LAB_2b.app]

LAB2b › app › src › main › res › values › file_paths.xml

app Nexus 4 API 22

Android

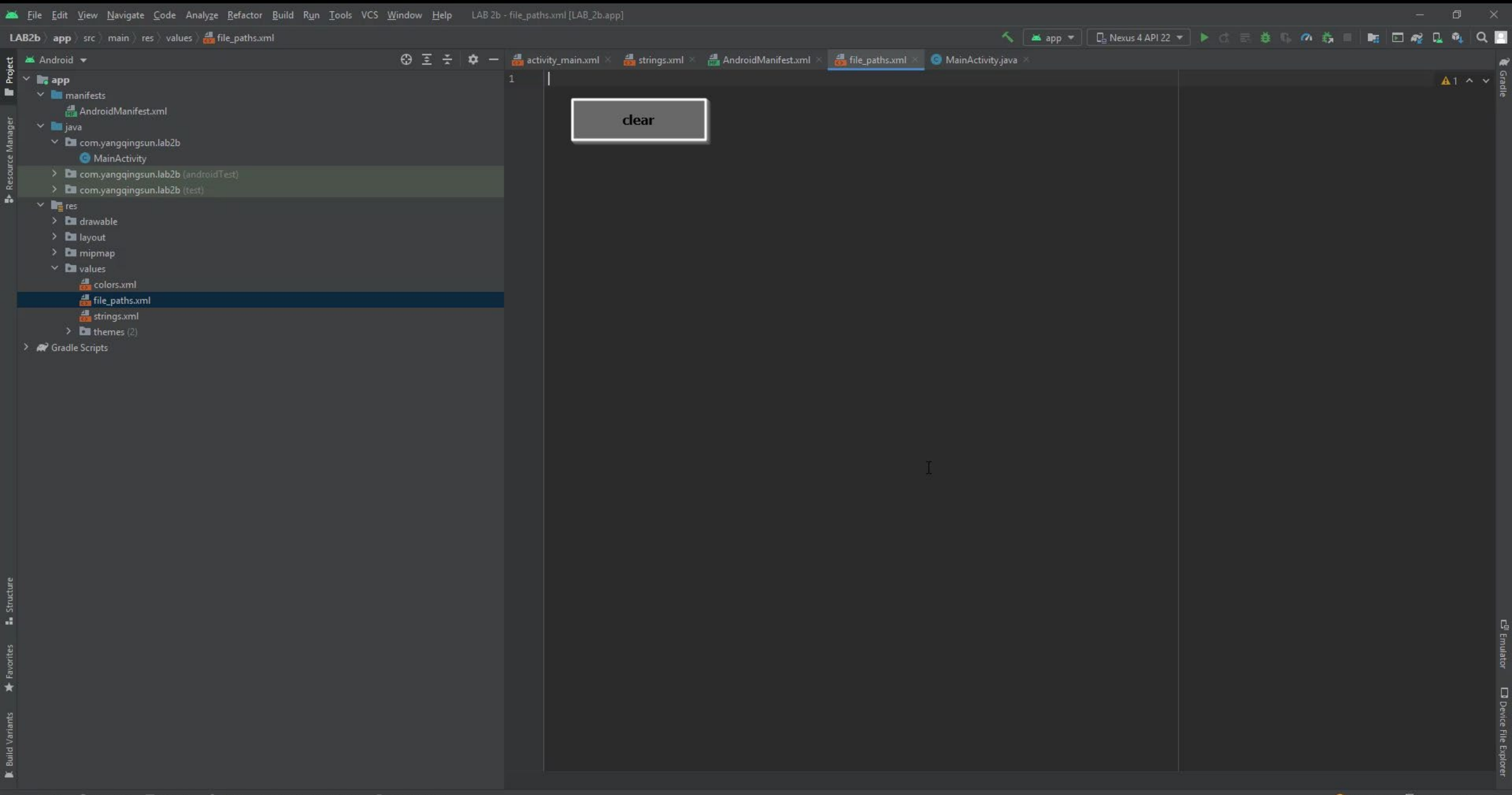
- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - file_paths.xml
      - strings.xml
      - themes (2)
- Gradle Scripts

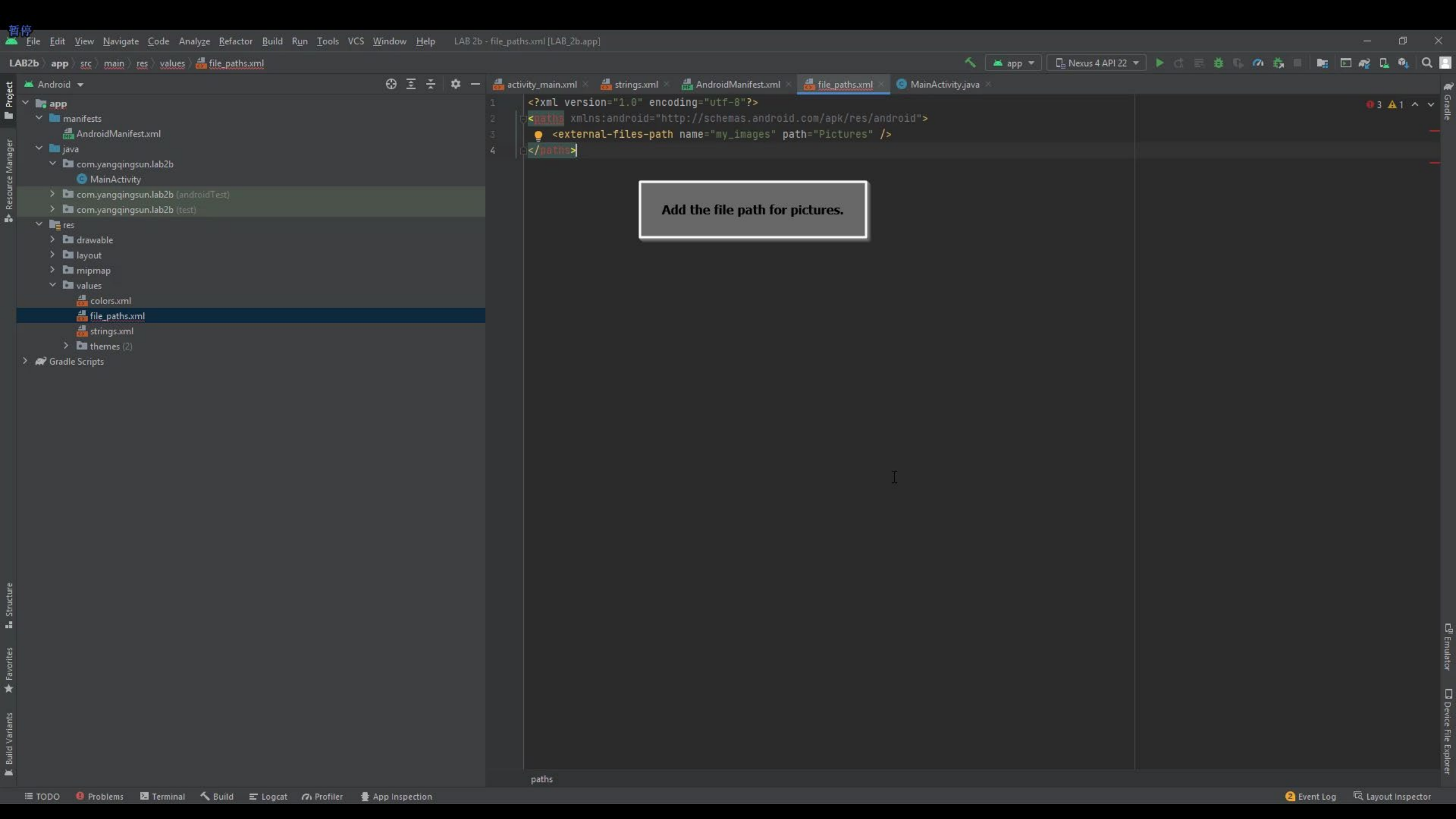
activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

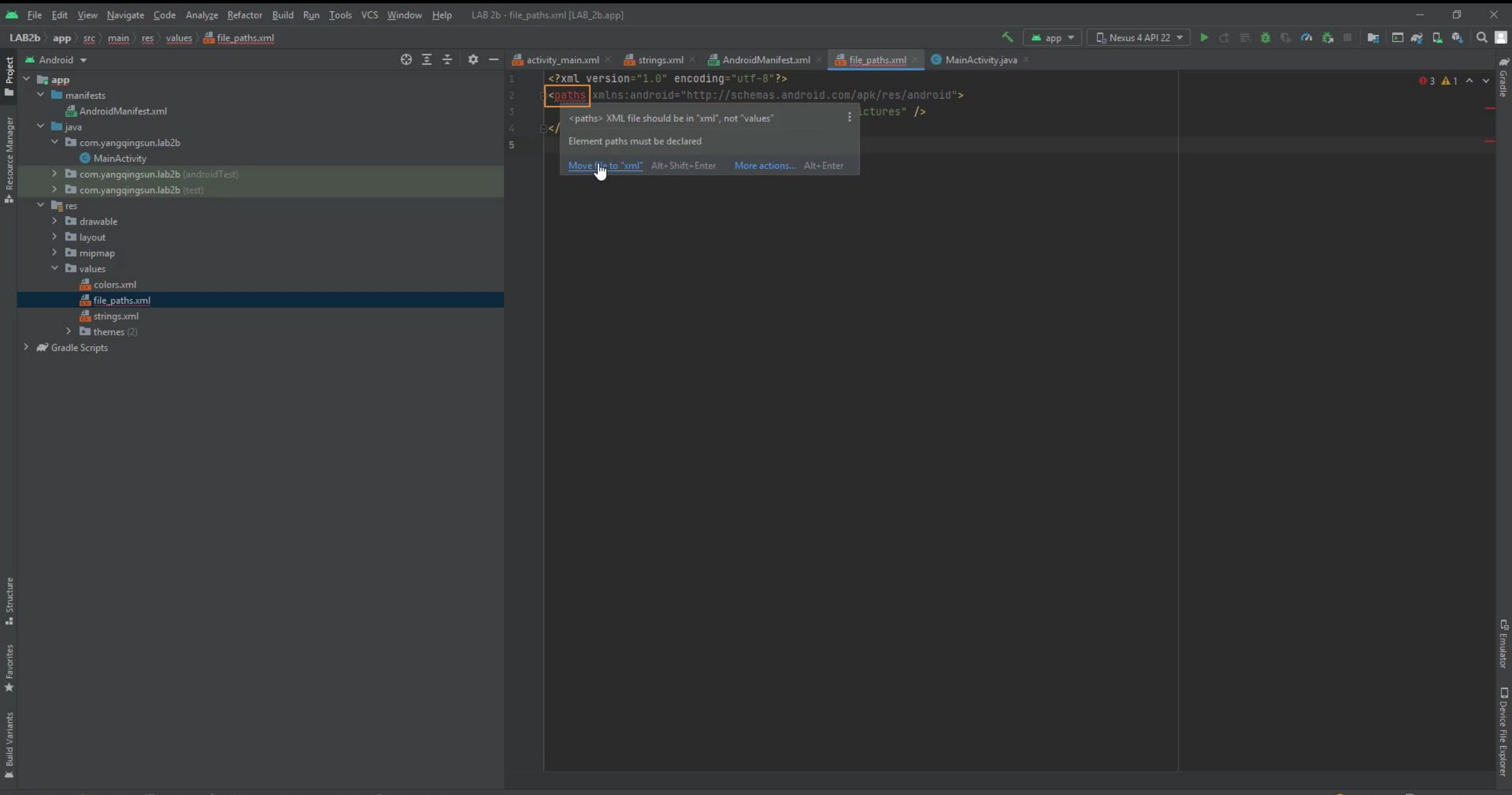
Gradle project sync in progress...

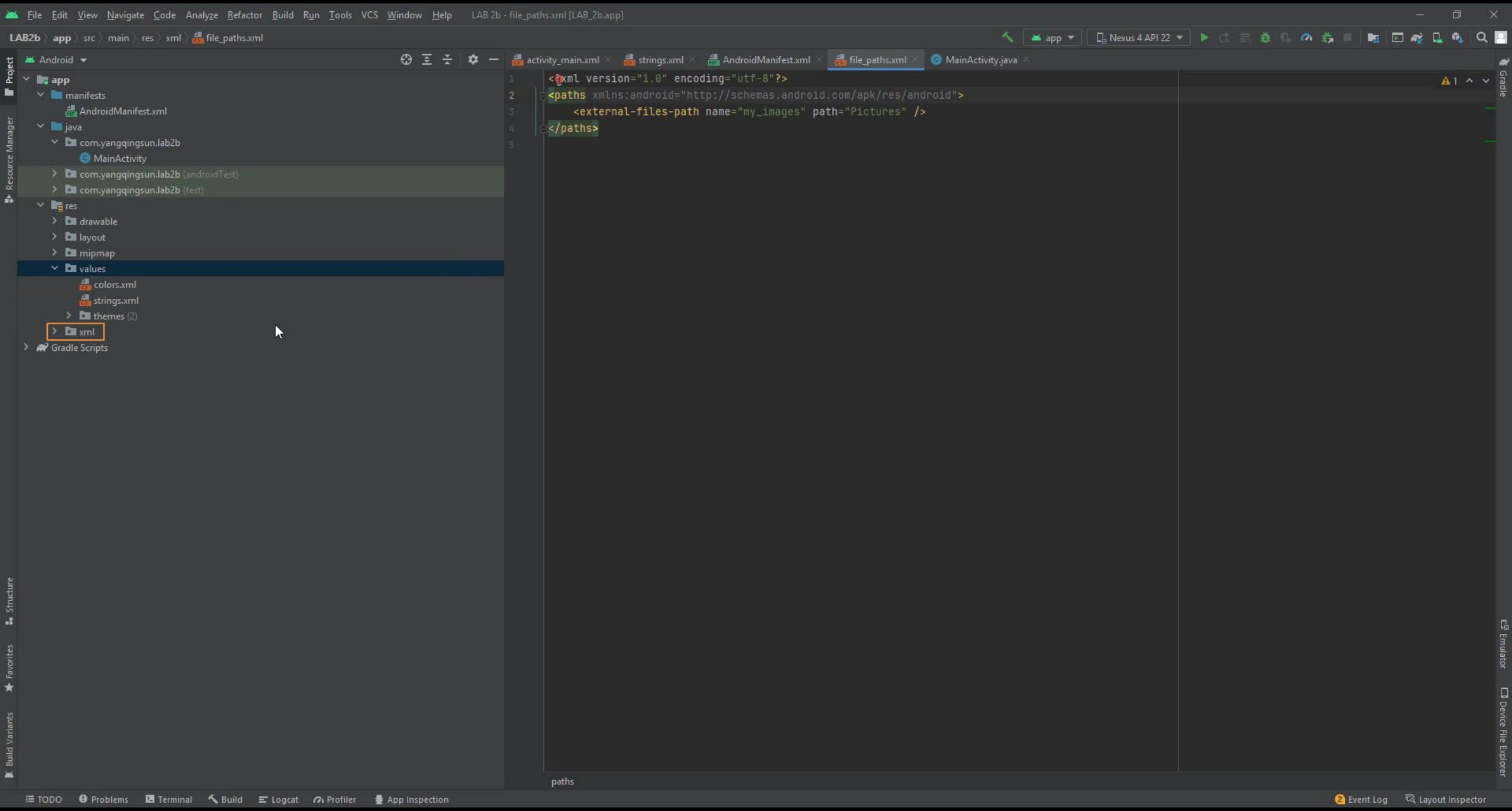
```
1  <?xml version="1.0" encoding="utf-8"?>
2  <resources></resources>
```

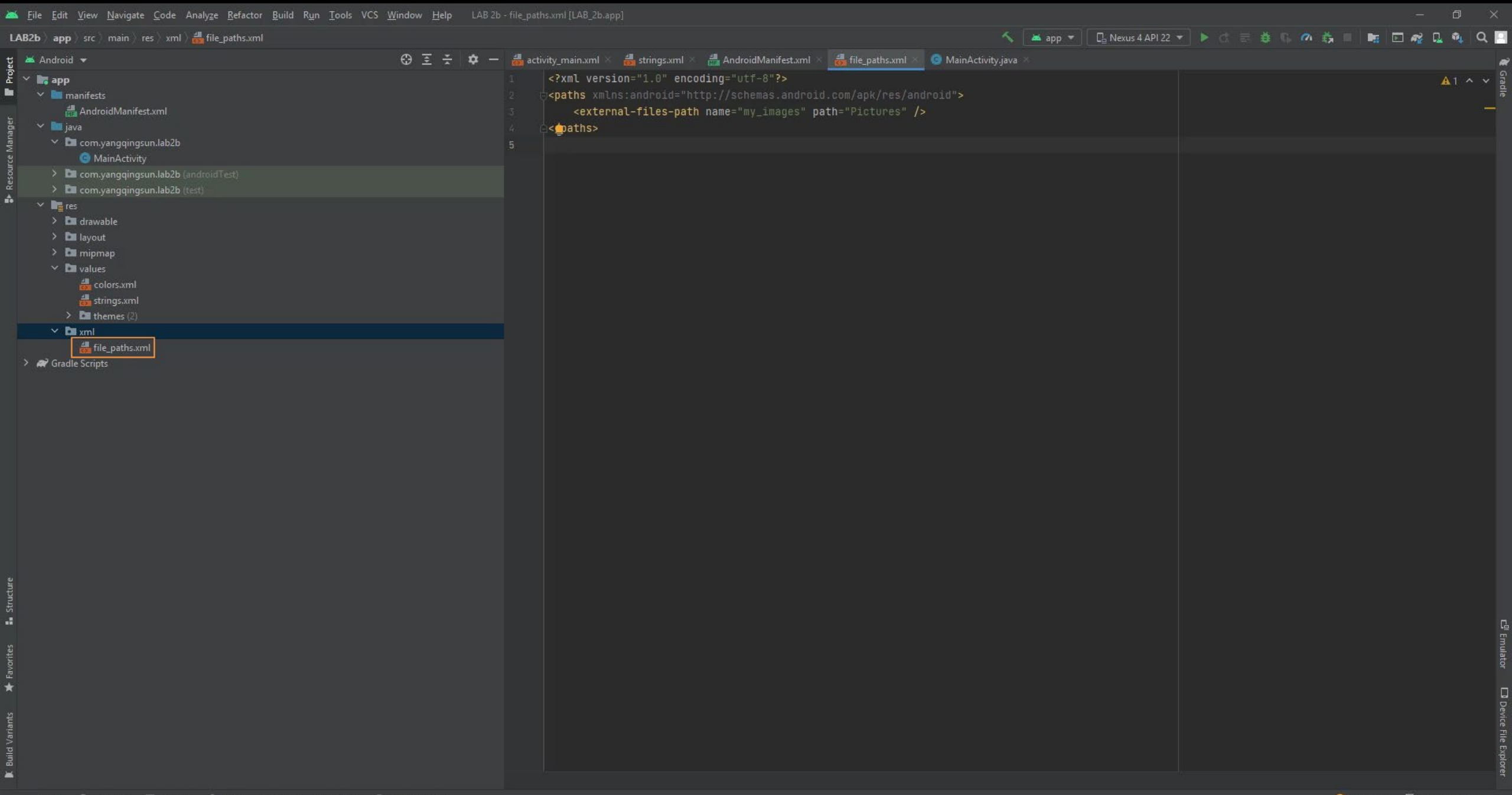
TODO Problems Terminal Build Logcat Profiler App Inspection Event Log Layout Inspector


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - file_paths.xml [LAB_2b.app]
LAB2b app src main res values file_paths.xml
app
Nexus 4 API 22
Android
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
file_paths.xml
strings.xml
themes (2)
Gradle Scripts
1
clear
TODO
Problems
Terminal
Build
Logcat
Profiler
App Inspection
Event Log
Layout Inspector


暂停
File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - file_paths.xml [LAB_2b.app]
LAB2b app src main res values file_paths.xml
app
Nexus 4 API 22
Android
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
file_paths.xml
strings.xml
themes (2)
Gradle Scripts
<?xml version="1.0" encoding="utf-8"?>
<paths xmlns:android="http://schemas.android.com/apk/res/android">
<external-files-path name="my_images" path="Pictures" />
</paths>
Add the file path for pictures.
paths
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 2b - file_paths.xml [LAB_2b.app]
LAB2b app src main res values file_paths.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
file_paths.xml
strings.xml
themes (2)
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
1 <?xml version="1.0" encoding="utf-8"?>
2 <paths xmlns:android="http://schemas.android.com/apk/res/android">
3 lctures" />
4 </
5
3 1
<paths> XML file should be in "xml", not "values"
Element paths must be declared
Move file to "xml" Alt+Shift+Enter
More actions... Alt+Enter
Project
Resource Manager
Structure
Favorites
Build Variants
Gradle
Emulator
Device File Explorer
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 2b - file_paths.xml [LAB_2b.app]
LAB2b app src main res xml file_paths.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
<?xml version="1.0" encoding="utf-8"?>
<paths xmlns:android="http://schemas.android.com/apk/res/android">
<external-files-path name="my_images" path="Pictures" />
</paths>
paths
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 2b - file_paths.xml [LAB_2b.app]
LAB2b app src main res xml file_paths.xml
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
xml
file_paths.xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
<?xml version="1.0" encoding="utf-8"?>
<paths xmlns:android="http://schemas.android.com/apk/res/android">
<external-files-path name="my_images" path="Pictures" />
</paths>
Project
Resource Manager
Structure
Favorites
Build Variants
Gradle
Emulator
Device File Explorer
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 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity

app | Nexus 4 API 22

Android

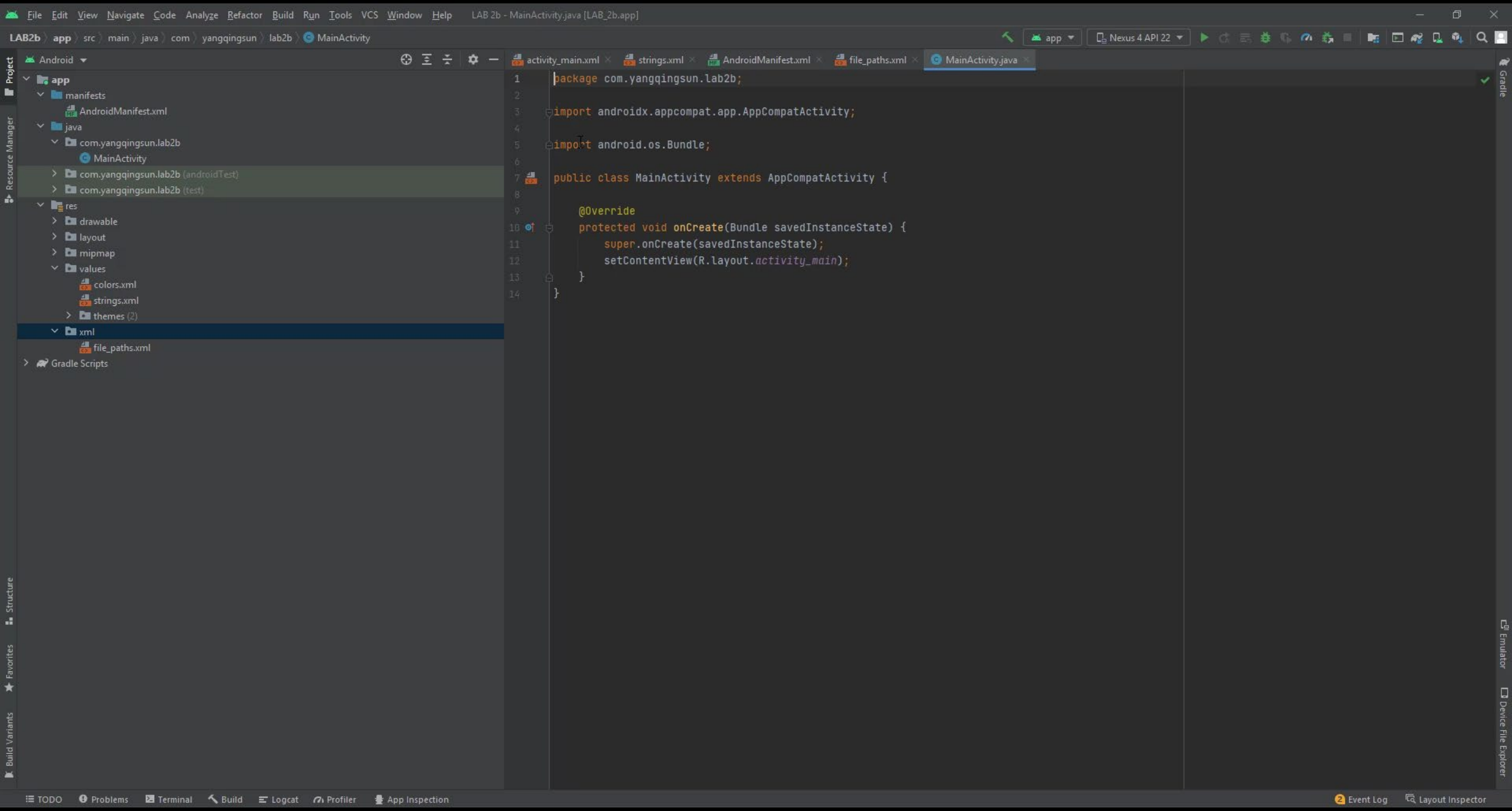
- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

Analyzing...

```java
package com.yangqingsun.lab2b;

import ...

public class MainActivity extends AppCompatActivity {

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

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 2b - MainActivity.java [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
xml
file_paths.xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
1 package com.yangqingsun.lab2b;
2
3 import androidx.appcompat.app.AppCompatActivity;
4
5 import android.os.Bundle;
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 }
Project
Resource Manager
Structure
Favorites
Build Variants
Gradle
Emulator
Device File Explorer
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 2b - MainActivity.java [LAB_2b.app]

LAB2b > app > src > main > java > com > yangqingsun > lab2b > MainActivity > photo

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

```java
package com.yangqingsun.lab2b;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    static final int REQUEST_IMAGE_CAPTURE = 1;
    String currentPhotoPath;

    // Declare objects
    Button takePhoto;
    ImageView photo;

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

2 4

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 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › photo

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

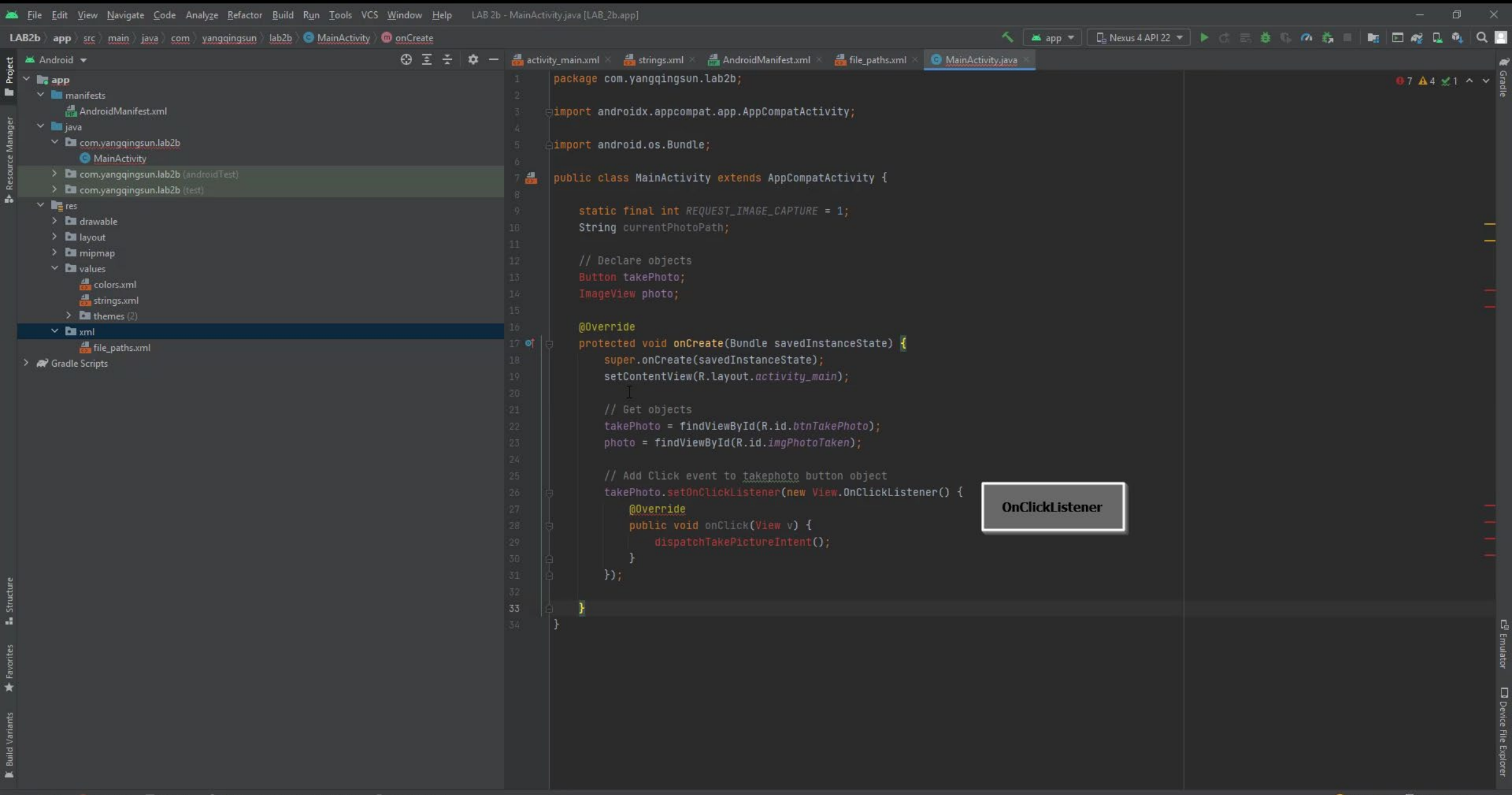
activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

```java
package com.yangqingsun.lab2b;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    static final int REQUEST_IMAGE_CAPTURE = 1;
    String currentPhotoPath;

    // Declare objects
    Button takePhoto;
    ImageView photo;

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

2 4

Project | Resource Manager | Structure | Favorites | Build Variants | Gradle | Emulator | Device File Explorer

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 2b - MainActivity.java [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity onCreate
app
Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
xml
file_paths.xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
package com.yangqingsun.lab2b;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
static final int REQUEST_IMAGE_CAPTURE = 1;
String currentPhotoPath;
// Declare objects
Button takePhoto;
ImageView photo;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
// Get objects
takePhoto = findViewById(R.id.btnTakePhoto);
photo = findViewById(R.id.imgPhotoTaken);
// Add Click event to takephoto button object
takePhoto.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
dispatchTakePictureIntent();
}
});
}
}
OnClickListener
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 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › onCreate

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

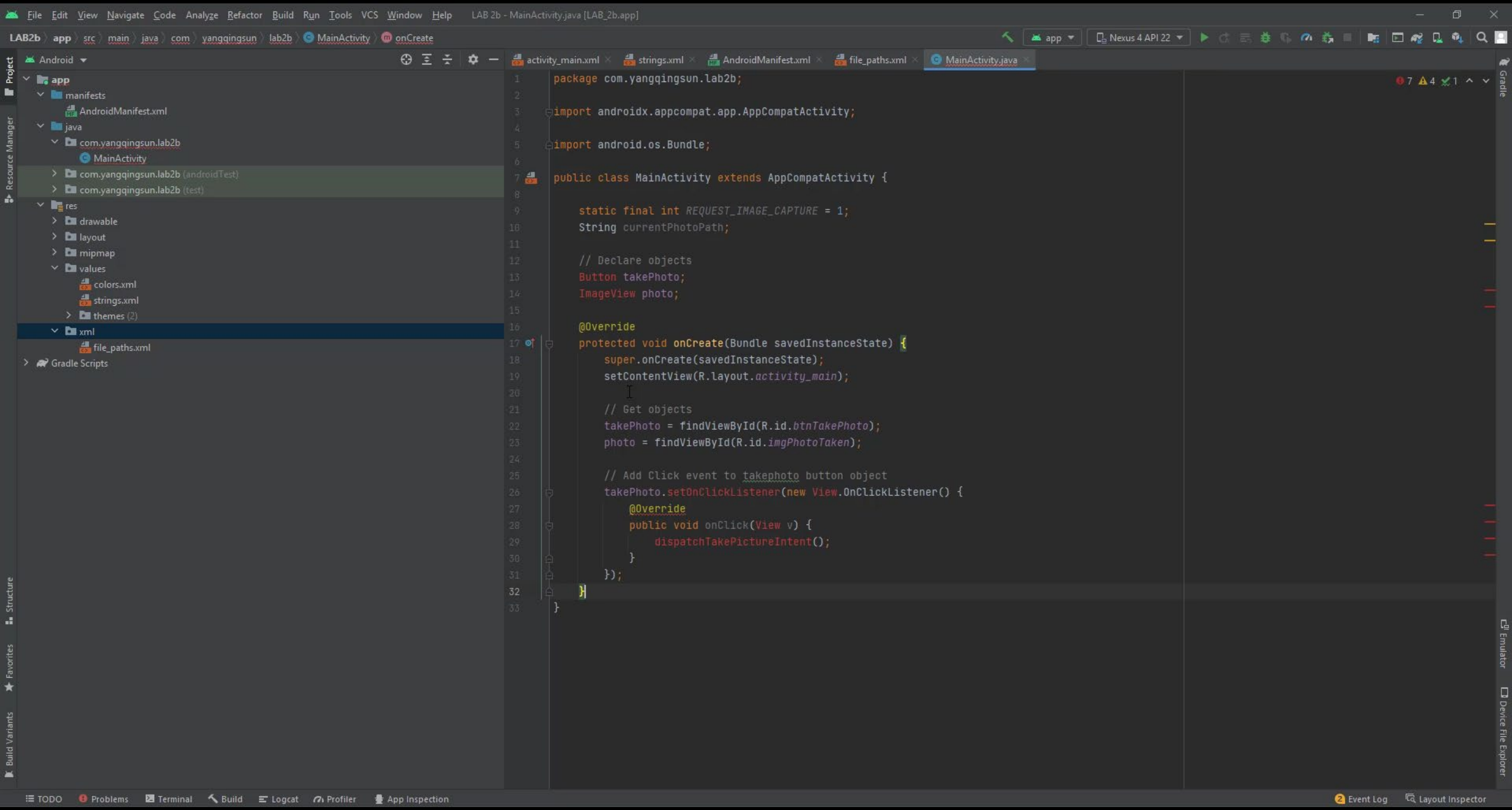
activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

```
1  package com.yangqingsun.lab2b;
2
3  import androidx.appcompat.app.AppCompatActivity;
4
5  import android.os.Bundle;
6
7  public class MainActivity extends AppCompatActivity {
8
9      static final int REQUEST_IMAGE_CAPTURE = 1;
10     String currentPhotoPath;
11
12     // Declare objects
13     Button takePhoto;
14     ImageView photo;
15
16     @Override
17     protected void onCreate(Bundle savedInstanceState) {
18         super.onCreate(savedInstanceState);
19         setContentView(R.layout.activity_main);
20
21         // Get objects
22         takePhoto = findViewById(R.id.btnTakePhoto);
23         photo = findViewById(R.id.imgPhotoTaken);
24
25         // Add Click event to takephoto button object
26         takePhoto.se                    .OnClickListener() {
27             @Overrid
28             public void onClick(View v) {
29                 dispatchTakePictureIntent();
30             }
31         });
32     }
33 }
```

android.view.View? Alt+Enter

7 4 1

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 2b - MainActivity.java [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity onCreate
app
Nexus 4 API 22
Android
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MainActivity
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com.yangqingsun.lab2b (test)
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strings.xml
themes (2)
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file_paths.xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
package com.yangqingsun.lab2b;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
static final int REQUEST_IMAGE_CAPTURE = 1;
String currentPhotoPath;
// Declare objects
Button takePhoto;
ImageView photo;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
// Get objects
takePhoto = findViewById(R.id.btnTakePhoto);
photo = findViewById(R.id.imgPhotoTaken);
// Add Click event to takephoto button object
takePhoto.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
dispatchTakePictureIntent();
}
});
}
}
TODO
Problems
Terminal
Build
Logcat
Profiler
App Inspection
Event Log
Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help — LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › dispatchTakePictureIntent

app | Nexus 4 API 22

Android

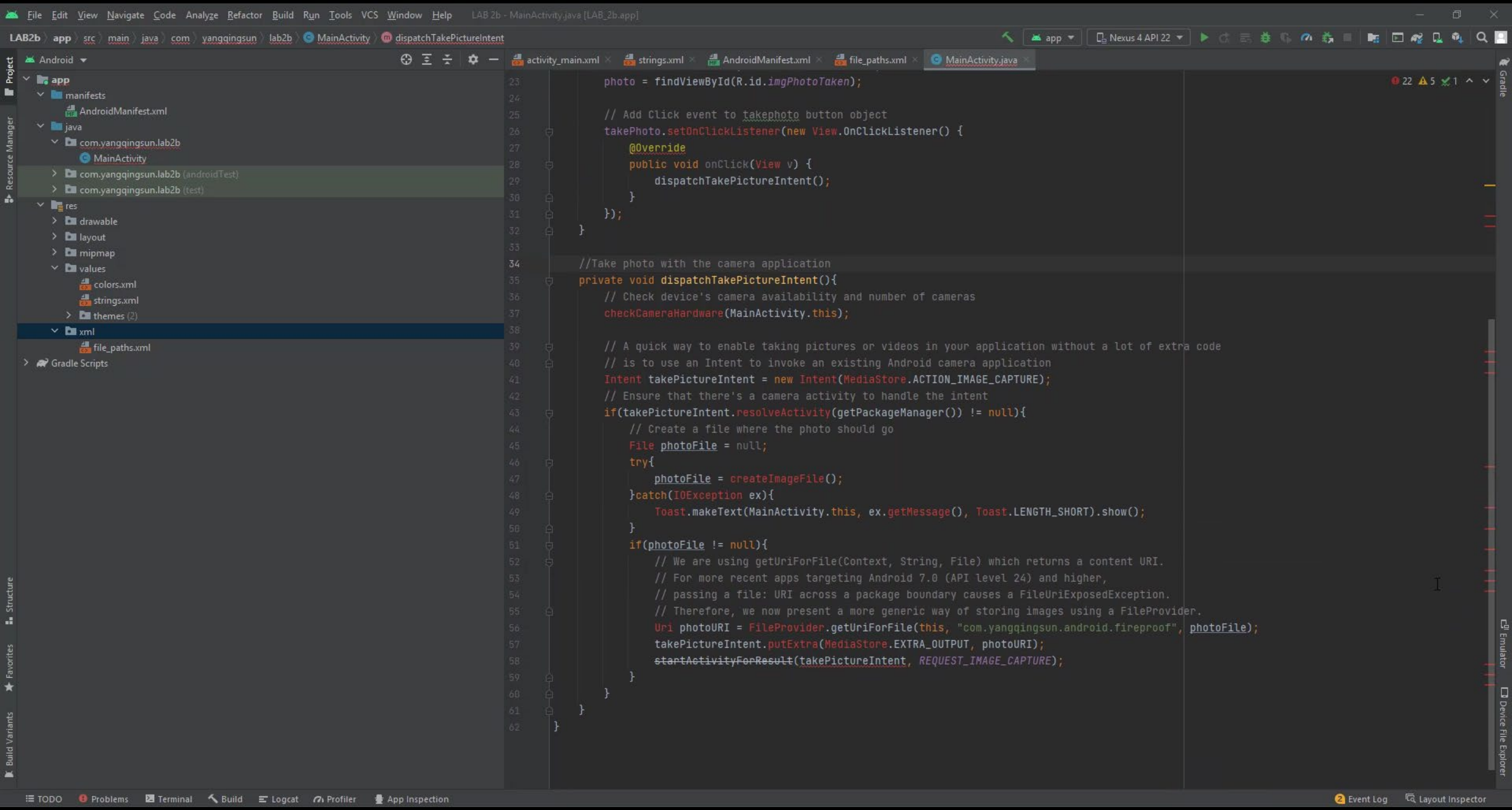
- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

22 5 1

```
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    static final int REQUEST_IMAGE_CAPTURE = 1;
    String currentPhotoPath;

    // Declare objects
    Button takePhoto;
    ImageView photo;

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

        // Get objects
        takePhoto = findViewById(R.id.btnTakePhoto);
        photo = findViewById(R.id.imgPhotoTaken);

        // Add Click event to takephoto button object
        takePhoto.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                dispatchTakePictureIntent();
            }
        });
    }

    //Take photo with the camera application
    private void dispatchTakePictureIntent(){
        // Check device's camera availability and number of cameras
        checkCameraHardware(MainActivity.this);

        // A quick way to enable taking pictures or videos in your application without a lot of extra code
        // is to use an Intent to invoke an existing Android camera application
        Intent takePictureIntent = new Intent(MediaStore.ACTION_IMAGE_CAPTURE);
        // Ensure that there's a camera activity to handle the intent
        if(takePictureIntent.resolveActivity(getPackageManager()) != null){
            // Create a file where the photo should go
```

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 2b - MainActivity.java [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity dispatchTakePictureIntent
app Nexus 4 API 22
Android
app
manifests
AndroidManifest.xml
java
com.yangqingsun.lab2b
MainActivity
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com.yangqingsun.lab2b (test)
res
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mipmap
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colors.xml
strings.xml
themes (2)
xml
file_paths.xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
22 5 1
photo = findViewById(R.id.imgPhotoTaken);
// Add Click event to takephoto button object
takePhoto.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
dispatchTakePictureIntent();
}
});
}
//Take photo with the camera application
private void dispatchTakePictureIntent(){
// Check device's camera availability and number of cameras
checkCameraHardware(MainActivity.this);
// A quick way to enable taking pictures or videos in your application without a lot of extra code
// is to use an Intent to invoke an existing Android camera application
Intent takePictureIntent = new Intent(MediaStore.ACTION_IMAGE_CAPTURE);
// Ensure that there's a camera activity to handle the intent
if(takePictureIntent.resolveActivity(getPackageManager()) != null){
// Create a file where the photo should go
File photoFile = null;
try{
photoFile = createImageFile();
}catch(IOException ex){
Toast.makeText(MainActivity.this, ex.getMessage(), Toast.LENGTH_SHORT).show();
}
if(photoFile != null){
// We are using getUriForFile(Context, String, File) which returns a content URI.
// For more recent apps targeting Android 7.0 (API level 24) and higher,
// passing a file: URI across a package boundary causes a FileUriExposedException.
// Therefore, we now present a more generic way of storing images using a FileProvider.
Uri photoURI = FileProvider.getUriForFile(this, "com.yangqingsun.android.fireproof", photoFile);
takePictureIntent.putExtra(MediaStore.EXTRA_OUTPUT, photoURI);
startActivityForResult(takePictureIntent, REQUEST_IMAGE_CAPTURE);
}
}
}
}
TODO Problems Terminal Build Logcat Profiler App Inspection
Event Log Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help — LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › createImageFile

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

30 4 2

```
        takePhoto.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                dispatchTakePictureIntent();
            }
        });
    }

    //Take photo with the camera application
    private void dispatchTakePictureIntent(){
        // Check device's camera availability and number of cameras
        checkCameraHardware(MainActivity.this);

        // A quick way to enable taking pictures or videos in your application without a lot of extra code
        // is to use an Intent to invoke an existing Android camera application
        Intent takePictureIntent = new Intent(MediaStore.ACTION_IMAGE_CAPTURE);
        // Ensure that there's a camera activity to handle the intent
        if(takePictureIntent.resolveActivity(getPackageManager()) != null){
            // Create a file where the photo should go
            File photoFile = null;
            try{
                photoFile = createImageFile();
            }catch(IOException ex){
                Toast.makeText(MainActivity.this, ex.getMessage(), Toast.LENGTH_SHORT).show();
            }
            if(photoFile != null){
                // We are using getUriForFile(Context, String, File) which returns a content URI.
                // For more recent apps targeting Android 7.0 (API level 24) and higher,
                // passing a file: URI across a package boundary causes a FileUriExposedException.
                // Therefore, we now present a more generic way of storing images using a FileProvider.
                Uri photoURI = FileProvider.getUriForFile(this, "com.yangqingsun.android.fireproof", photoFile);
                takePictureIntent.putExtra(MediaStore.EXTRA_OUTPUT, photoURI);
                startActivityForResult(takePictureIntent, REQUEST_IMAGE_CAPTURE);
            }
        }
    }

    // Create a time-based file name
    private File createImageFile() throws IOException{
        // Create an image file name
        String timeStamp = new SimpleDateFormat("yyyyMMdd_HHmmss").format(new Date());
        String imageFileName = "JPEG_" + timeStamp + "_";
        File storageDir = getExternalFilesDir(Environment.DIRECTORY_PICTURES);
```

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help — LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › createImageFile

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

30 4 2

```
43          if(takePictureIntent.resolveActivity(getPackageManager()) != null){
44              // Create a file where the photo should go
45              File photoFile = null;
46              try{
47                  photoFile = createImageFile();
48              }catch(IOException ex){
49                  Toast.makeText(MainActivity.this, ex.getMessage(), Toast.LENGTH_SHORT).show();
50              }
51              if(photoFile != null){
52                  // We are using getUriForFile(Context, String, File) which returns a content URI.
53                  // For more recent apps targeting Android 7.0 (API level 24) and higher,
54                  // passing a file: URI across a package boundary causes a FileUriExposedException.
55                  // Therefore, we now present a more generic way of storing images using a FileProvider.
56                  Uri photoURI = FileProvider.getUriForFile(this, "com.yangqingsun.android.fireproof", photoFile);
57                  takePictureIntent.putExtra(MediaStore.EXTRA_OUTPUT, photoURI);
58                  startActivityForResult(takePictureIntent, REQUEST_IMAGE_CAPTURE);
59              }
60          }
61      }
62
63      // Create a time-based file name
64      private File createImageFile() throws IOException{
65          // Create an image file name
66          String timeStamp = new SimpleDateFormat("yyyyMMdd_HHmmss").format(new Date());
67          String imageFileName = "JPEG_" + timeStamp + "_";
68          File storageDir = getExternalFilesDir(Environment.DIRECTORY_PICTURES);
69          File image = File.createTempFile(
70                  imageFileName, /* prefix */
71                  ".jpg", /* suffix */
72                  storageDir      /* directory */
73          );
74
75          // Save a file; path for use with ACTION_VIEW intents
76          currentPhotoPath = image.getAbsolutePath();
77          //Toast.makeText(MainActivity.this, currentPhotoPath,Toast.LENGTH_SHORT).show();
78          return image;
79      }
80  }
```

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector

```
        // Create a file where the photo should go
        File photoFile = null;
        try{
            photoFile = createImageFile();
        }catch(IOException ex){
            Toast.makeText(MainActivity.this, ex.getMessage(), Toast.LENGTH_SHORT).show();
        }
        if(photoFile != null){
            // We are using getUriForFile(Context, String, File) which returns a content URI.
            // For more recent apps targeting Android 7.0 (API level 24) and higher,
            // passing a file: URI across a package boundary causes a FileUriExposedException.
            // Therefore, we now present a more generic way of storing images using a FileProvider.
            Uri photoURI = FileProvider.getUriForFile(this, "com.yangqingsun.android.fireproof", photoFile);
            takePictureIntent.putExtra(MediaStore.EXTRA_OUTPUT, photoURI);
            startActivityForResult(takePictureIntent, REQUEST_IMAGE_CAPTURE);
        }
    }
}

// Create a time-based file name
private File createImageFile() throws IOException{
    // Create an image file name
    String timeStamp = new SimpleDateFormat("yyyyMMdd_HHmmss").format(new Date());
    String imageFileName = "JPEG_" + timeStamp + "_";
    File storageDir = getExternalFilesDir(Environment.DIRECTORY_PICTURES);
    File image = File.createTempFile(
            imageFileName, /* prefix */
            ".jpg", /* suffix */
            storageDir      /* directory */
    );

    // Save a file; path for use with ACTION_VIEW intents
    currentPhotoPath = image.getAbsolutePath();
    //Toast.makeText(MainActivity.this, currentPhotoPath,Toast.LENGTH_SHORT).show();
    return image;
}

// Get the thumbnail of image captured and store in photo object
// The Android Camera application encodes the photo in the return Intent
// delivered to onActivityResult() as a small Bitmap in the extras, under the key "data"
@SuppressLint("MissingSuperCall")
@Override
protected void onActivityResult(int requestCode, int resultCode, Intent data){
```

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help — LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › onActivityResult

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

34 6 1 3

```
    }

    // Create a time-based file name
    private File createImageFile() throws IOException{
        // Create an image file name
        String timeStamp = new SimpleDateFormat("yyyyMMdd_HHmmss").format(new Date());
        String imageFileName = "JPEG_" + timeStamp + "_";
        File storageDir = getExternalFilesDir(Environment.DIRECTORY_PICTURES);
        File image = File.createTempFile(
                imageFileName, /* prefix */
                ".jpg", /* suffix */
                storageDir      /* directory */
        );

        // Save a file; path for use with ACTION_VIEW intents
        currentPhotoPath = image.getAbsolutePath();
        //Toast.makeText(MainActivity.this, currentPhotoPath,Toast.LENGTH_SHORT).show();
        return image;
    }

    // Get the thumbnail of image captured and store in photo object
    // The Android Camera application encodes the photo in the return Intent
    // delivered to onActivityResult() as a small Bitmap in the extras, under the key "data"
    @SuppressLint("MissingSuperCall")
    @Override
    protected void onActivityResult(int requestCode, int resultCode, Intent data){
        if(requestCode == REQUEST_IMAGE_CAPTURE && resultCode == RESULT_OK){
            /*Bundle extras = data.getExtras();
            Bitmap imageBitmap = (Bitmap) extras.get("data");
            photo.setImageBitmap(imageBitmap);*/

            // Invoke media'scanner
            // galleryAddPic();

            setPic();
        }
    }
}
```

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help — LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › setPic

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
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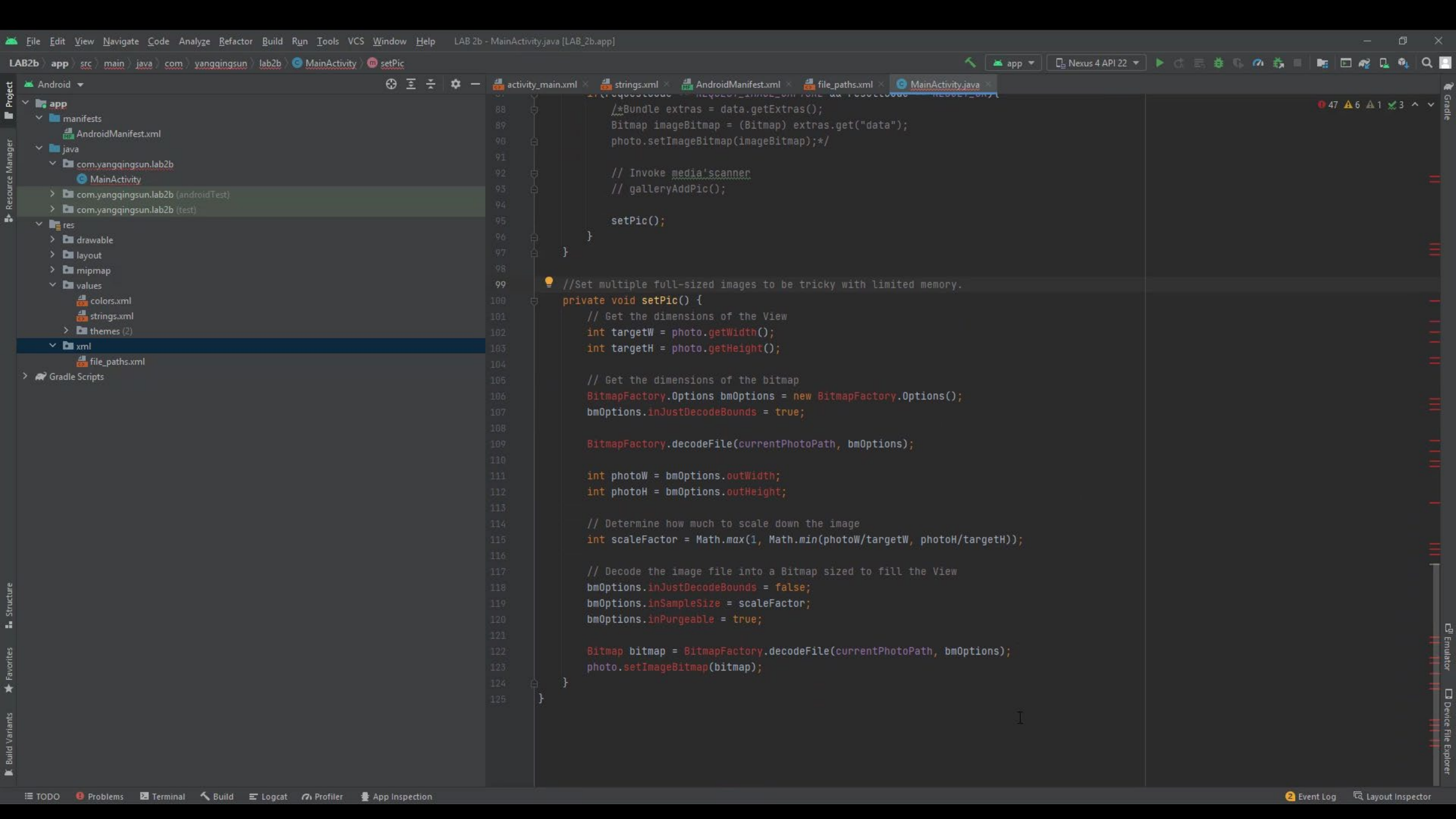
      - colors.xml
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

47 6 1 3

```
62
63      // Create a time-based file name
64  @   private File createImageFile() throws IOException{
65          // Create an image file name
66          String timeStamp = new SimpleDateFormat("yyyyMMdd_HHmmss").format(new Date());
67          String imageFileName = "JPEG_" + timeStamp + "_";
68          File storageDir = getExternalFilesDir(Environment.DIRECTORY_PICTURES);
69          File image = File.createTempFile(
70                  imageFileName, /* prefix */
71                  ".jpg", /* suffix */
72                  storageDir      /* directory */
73          );
74
75          // Save a file; path for use with ACTION_VIEW intents
76          currentPhotoPath = image.getAbsolutePath();
77          //Toast.makeText(MainActivity.this, currentPhotoPath,Toast.LENGTH_SHORT).show();
78          return image;
79      }
80
81      // Get the thumbnail of image captured and store in photo object
82      // The Android Camera application encodes the photo in the return Intent
83      // delivered to onActivityResult() as a small Bitmap in the extras, under the key "data"
84      @SuppressLint("MissingSuperCall")
85      @Override
86      protected void onActivityResult(int requestCode, int resultCode, Intent data){
87          if(requestCode == REQUEST_IMAGE_CAPTURE && resultCode == RESULT_OK){
88              /*Bundle extras = data.getExtras();
89              Bitmap imageBitmap = (Bitmap) extras.get("data");
90              photo.setImageBitmap(imageBitmap);*/
91
92              // Invoke media'scanner
93              // galleryAddPic();
94
95              setPic();
96          }
97      }
98
99      //Set multiple full-sized images to be tricky with limited memory.
100     private void setPic() {
101         // Get the dimensions of the View
102         int targetW = photo.getWidth();
103         int targetH = photo.getHeight();
104
105         // Get the dimensions of the bitmap
```

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 2b - MainActivity.java [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity setPic
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Nexus 4 API 22
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MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
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drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
xml
file_paths.xml
Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
47 6 1 3
/*Bundle extras = data.getExtras();
Bitmap imageBitmap = (Bitmap) extras.get("data");
photo.setImageBitmap(imageBitmap);*/
// Invoke media'scanner
// galleryAddPic();
setPic();
}
}
//Set multiple full-sized images to be tricky with limited memory.
private void setPic() {
// Get the dimensions of the View
int targetW = photo.getWidth();
int targetH = photo.getHeight();
// Get the dimensions of the bitmap
BitmapFactory.Options bmOptions = new BitmapFactory.Options();
bmOptions.inJustDecodeBounds = true;
BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
int photoW = bmOptions.outWidth;
int photoH = bmOptions.outHeight;
// Determine how much to scale down the image
int scaleFactor = Math.max(1, Math.min(photoW/targetW, photoH/targetH));
// Decode the image file into a Bitmap sized to fill the View
bmOptions.inJustDecodeBounds = false;
bmOptions.inSampleSize = scaleFactor;
bmOptions.inPurgeable = true;
Bitmap bitmap = BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
photo.setImageBitmap(bitmap);
}
}
TODO Problems Terminal Build Logcat Profiler App Inspection
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暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help — LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
    - com.yangqingsun.lab2b (test)
  - res
    - drawable
    - layout
    - mipmap
    - values
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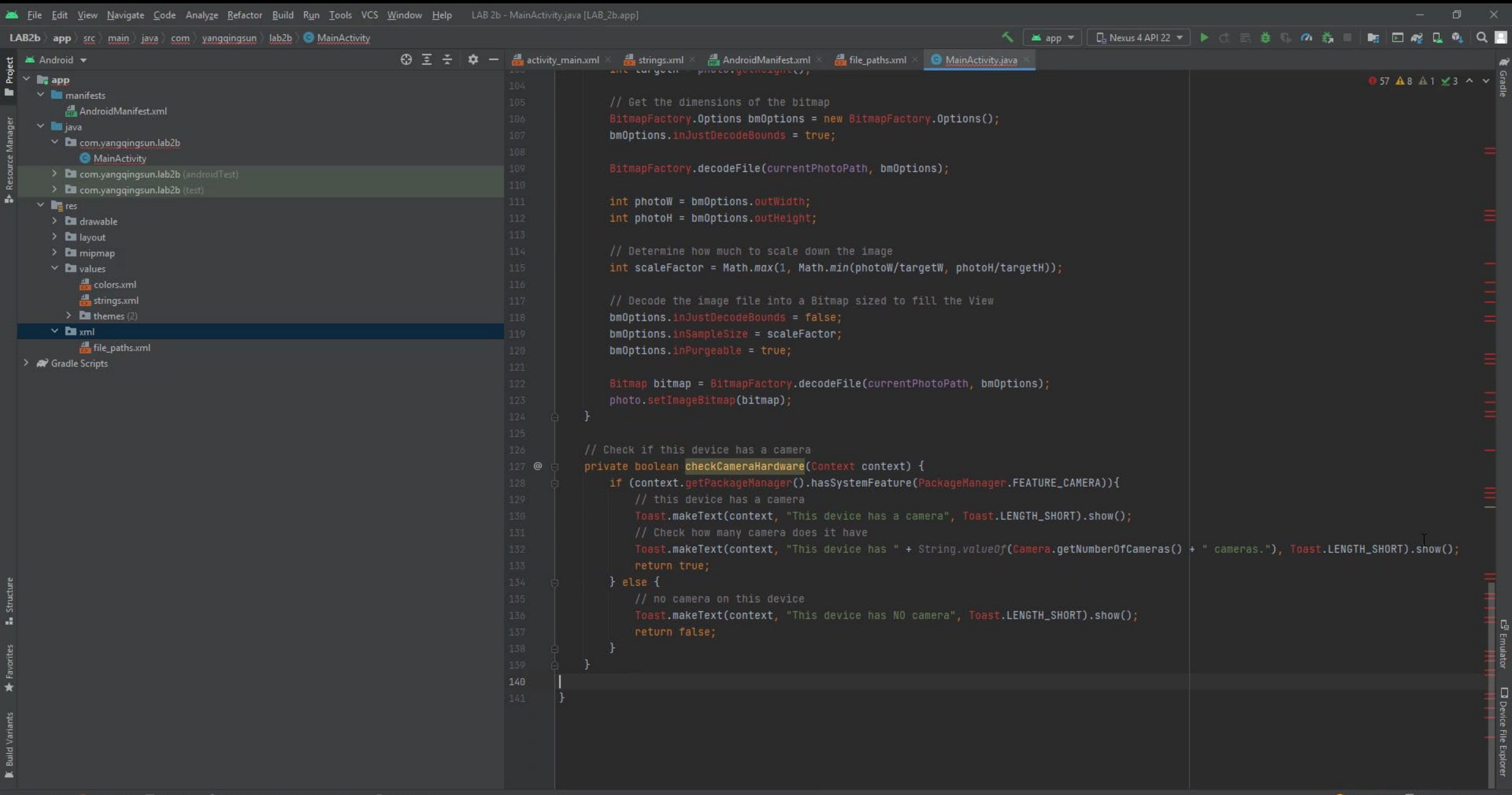
      - strings.xml
      - themes (2)
    - xml
      - file_paths.xml
- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

57 8 1 3

```
90              photo.setImageBitmap(imageBitmap);*/
91
92              // Invoke media'scanner
93              // galleryAddPic();
94
95              setPic();
96          }
97      }
98
99      //Set multiple full-sized images to be tricky with limited memory.
100     private void setPic() {
101         // Get the dimensions of the View
102         int targetW = photo.getWidth();
103         int targetH = photo.getHeight();
104
105         // Get the dimensions of the bitmap
106         BitmapFactory.Options bmOptions = new BitmapFactory.Options();
107         bmOptions.inJustDecodeBounds = true;
108
109         BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
110
111         int photoW = bmOptions.outWidth;
112         int photoH = bmOptions.outHeight;
113
114         // Determine how much to scale down the image
115         int scaleFactor = Math.max(1, Math.min(photoW/targetW, photoH/targetH));
116
117         // Decode the image file into a Bitmap sized to fill the View
118         bmOptions.inJustDecodeBounds = false;
119         bmOptions.inSampleSize = scaleFactor;
120         bmOptions.inPurgeable = true;
121
122         Bitmap bitmap = BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
123         photo.setImageBitmap(bitmap);
124     }
125
126     // Check if this device has a camera
127 @   private boolean checkCameraHardware(Context context) {
128         if (context.getPackageManager().hasSystemFeature(PackageManager.FEATURE_CAMERA)){
129             // this device has a camera
130             Toast.makeText(context, "This device has a camera", Toast.LENGTH_SHORT).show();
131             // Check how many camera does it have
132             Toast.makeText(context, "This device has " + String.valueOf(Camera.getNumberOfCameras() + " cameras."), Toast.LENGTH_SHORT).show();
```

TODO | Problems | Terminal | Build | Logcat | Profiler | App Inspection | Event Log | Layout Inspector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activity_main.xml
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MainActivity.java
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BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
int photoW = bmOptions.outWidth;
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// Determine how much to scale down the image
int scaleFactor = Math.max(1, Math.min(photoW/targetW, photoH/targetH));
// Decode the image file into a Bitmap sized to fill the View
bmOptions.inJustDecodeBounds = false;
bmOptions.inSampleSize = scaleFactor;
bmOptions.inPurgeable = true;
Bitmap bitmap = BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
photo.setImageBitmap(bitmap);
}
// Check if this device has a camera
private boolean checkCameraHardware(Context context) {
if (context.getPackageManager().hasSystemFeature(PackageManager.FEATURE_CAMERA)){
// this device has a camera
Toast.makeText(context, "This device has a camera", Toast.LENGTH_SHORT).show();
// Check how many camera does it have
Toast.makeText(context, "This device has " + String.valueOf(Camera.getNumberOfCameras() + " cameras."), Toast.LENGTH_SHORT).show();
return true;
} else {
// no camera on this device
Toast.makeText(context, "This device has NO camera", Toast.LENGTH_SHORT).show();
return false;
}
}
}
TODO Problems Terminal Build Logcat Profiler App Inspection
Event Log Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b > app > src > main > java > com > yangqingsun > lab2b > MainActivity

app | Nexus 4 API 22

Android

- app
  - manifests
    - AndroidManifest.xml
  - java
    - com.yangqingsun.lab2b
      - MainActivity
    - com.yangqingsun.lab2b (androidTest)
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- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

57 8 1 3

```
1  package com.yangqingsun.lab2b;
2
3  import androidx.appcompat.app.AppCompatActivity;
4
5  import android.os.Bundle;
6
7  public class MainActivity extends AppCompatActivity {
8
9      static final int REQUEST_IMAGE_CAPTURE = 1;
10     String currentPhotoPath;
11
12     // Declare objects
13     Button takePhoto;
14     I
15
16     @
17     protected void onCreate(Bundle savedInstanceState) {
18         super.onCreate(savedInstanceState);
19         setContentView(R.layout.activity_main);
20
21         // Get objects
22         takePhoto = findViewById(R.id.btnTakePhoto);
23         photo = findViewById(R.id.imgPhotoTaken);
24
25         // Add Click event to takephoto button object
26         takePhoto.setOnClickListener(new View.OnClickListener() {
27             @Override
28             public void onClick(View v) {
29                 dispatchTakePictureIntent();
30             }
31         });
32     }
33
34     //Take photo with the camera application
35     private void dispatchTakePictureIntent(){
36         // Check device's camera availability and number of cameras
37         checkCameraHardware( context: MainActivity.this);
38
39         // A quick way to enable taking pictures or videos in your application without a lot of extra code
40         // is to use an Intent to invoke an existing Android camera application
41         Intent takePictureIntent = new Intent(MediaStore.ACTION_IMAGE_CAPTURE);
42         // Ensure that there's a camera activity to handle the intent
43         if(takePictureIntent.resolveActivity(getPackageManager()) != null){
```

Cannot resolve symbol 'Button'

Import class Alt+Shift+Enter More actions... Alt+Enter

Import necessary classes.

TODO Problems Terminal Build Logcat Profiler App Inspection Event Log Layout Inspector

暂停

File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help LAB 2b - MainActivity.java [LAB_2b.app]

LAB2b › app › src › main › java › com › yangqingsun › lab2b › MainActivity › checkCameraHardware

app | Nexus 4 API 22

Android

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      - themes (2)
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- Gradle Scripts

activity_main.xml | strings.xml | AndroidManifest.xml | file_paths.xml | MainActivity.java

```
123
124         // Get the dimensions of the bitmap
125         BitmapFactory.Options bmOptions = new BitmapFactory.Options();
126         bmOptions.inJustDecodeBounds = true;
127
128         BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
129
130         int photoW = bmOptions.outWidth;
131         int photoH = bmOptions.outHeight;
132
133         // Determine how much to scale down the image
134         int scaleFactor = Math.max(1, Math.min(photoW/targetW, photoH/targetH));
135
136         // Decode the image file into a Bitmap sized to fill the View
137         bmOptions.inJustDecodeBounds = false;
138         bmOptions.inSampleSize = scaleFactor;
139         bmOptions.inPurgeable = true;
140
141         Bitmap bitmap = BitmapFactory.decodeFile(currentPhotoPath, bmOptions);
142         ph
143     }
144
145     // Check if this device has a camera
146 @   private boolean checkCameraHardware(Context context) {
147         if (context.getPackageManager().hasSystemFeature(PackageManager.FEATURE_CAMERA)){
148             // this device has a camera
149             Toast.makeText(context, text: "This device has a camera", Toast.LENGTH_SHORT).show();
150             // Check how many camera does it have
151             Toast.makeText(context, text: "This device has " + String.valueOf(Camera.getNumberOfCameras() + " cameras."), Toast.LENGTH_SHORT).show();
152             return true;
153         } else {
154             // no camera on this device
155             Toast.makeText(context, text: "This device has NO camera", Toast.LENGTH_SHORT).show();
156             return false;
157         }
158     }
159
160 }
```

Cannot resolve symbol 'Bitmap'

Import class Alt+Shift+Enter More actions... Alt+Enter

Import necessary classes.

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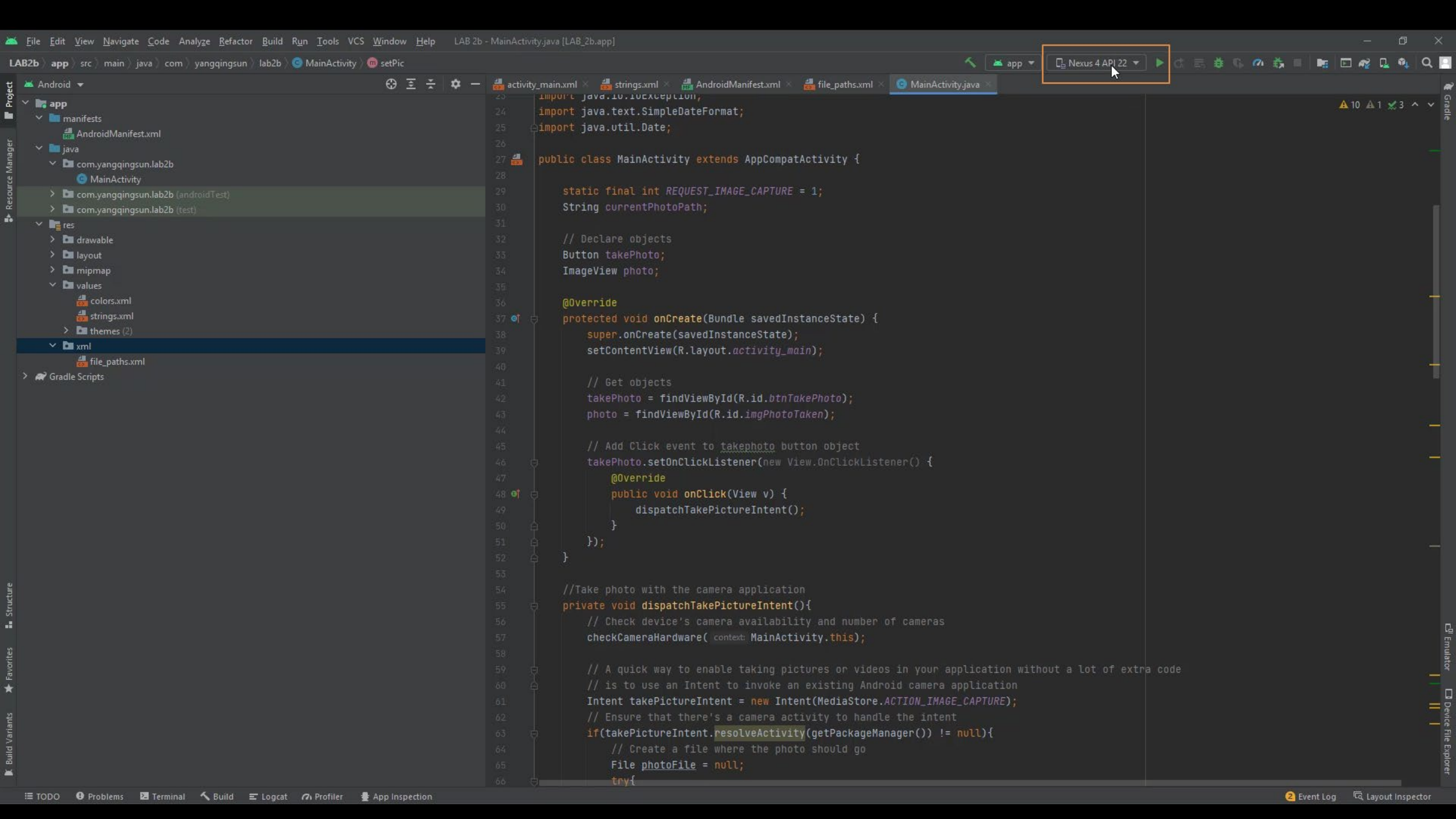
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Gradle Scripts
activity_main.xml
strings.xml
AndroidManifest.xml
file_paths.xml
MainActivity.java
import java.text.SimpleDateFormat;
import java.util.Date;
public class MainActivity extends AppCompatActivity {
static final int REQUEST_IMAGE_CAPTURE = 1;
String currentPhotoPath;
// Declare objects
Button takePhoto;
ImageView photo;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
// Get objects
takePhoto = findViewById(R.id.btnTakePhoto);
photo = findViewById(R.id.imgPhotoTaken);
// Add Click event to takephoto button object
takePhoto.setOnClickListener(new View.OnClickListener() {
@Override
public void onClick(View v) {
dispatchTakePictureIntent();
}
});
}
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private void dispatchTakePictureIntent(){
// Check device's camera availability and number of cameras
checkCameraHardware(context: MainActivity.this);
// A quick way to enable taking pictures or videos in your application without a lot of extra code
// is to use an Intent to invoke an existing Android camera application
Intent takePictureIntent = new Intent(MediaStore.ACTION_IMAGE_CAPTURE);
// Ensure that there's a camera activity to handle the intent
if(takePictureIntent.resolveActivity(getPackageManager()) != null){
// Create a file where the photo should go
File photoFile = null;
try{
10 1 3
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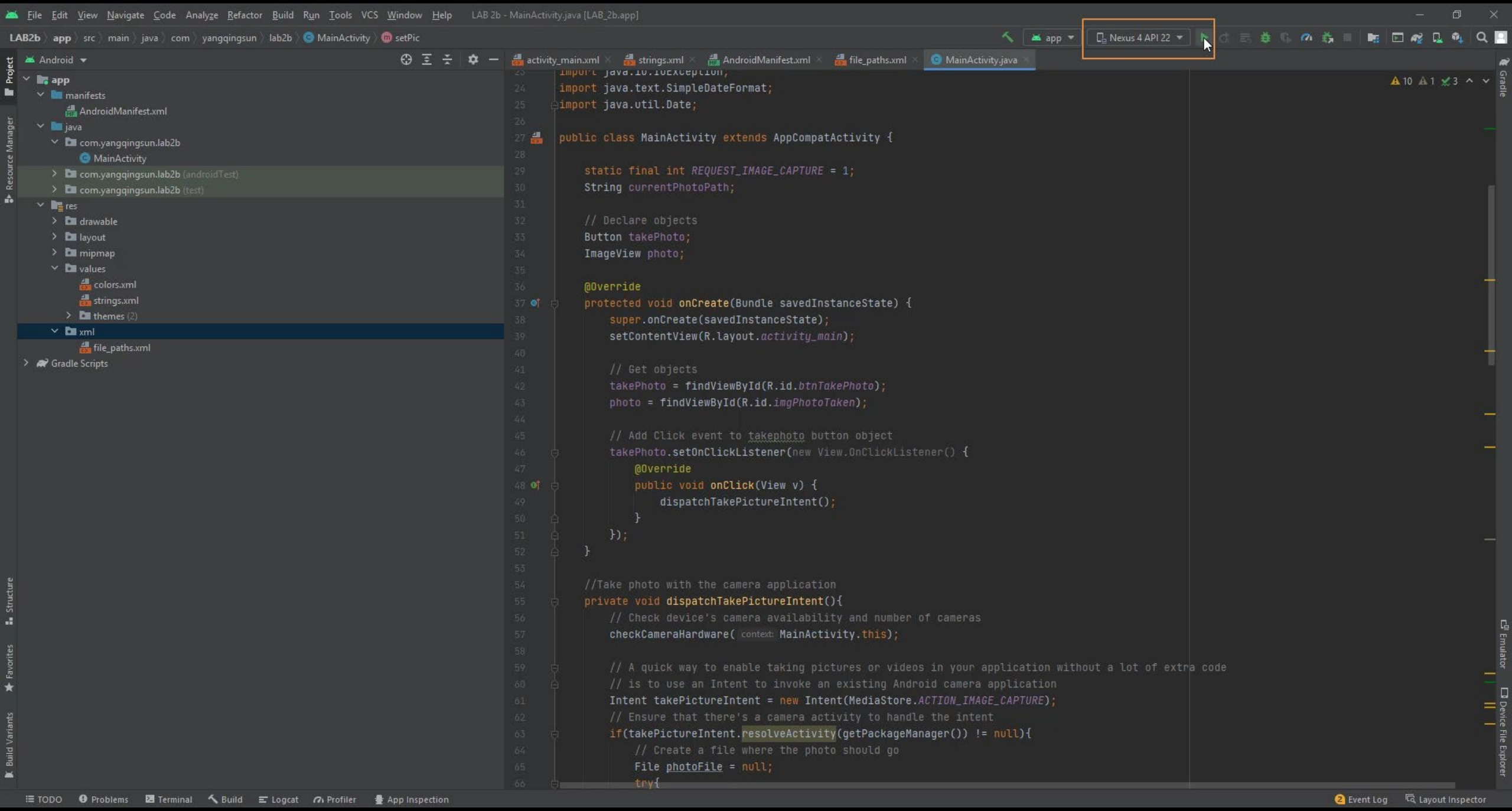
Resource Manager
Project
Structure
Favorites
Build Variants
Emulator
Device File Explorer
TODO
Problems
Terminal
Build
Logcat
Profiler
App Inspection
Event Log
Layout Inspector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});
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// Create a file where the photo should go
File photoFile = null;
try{
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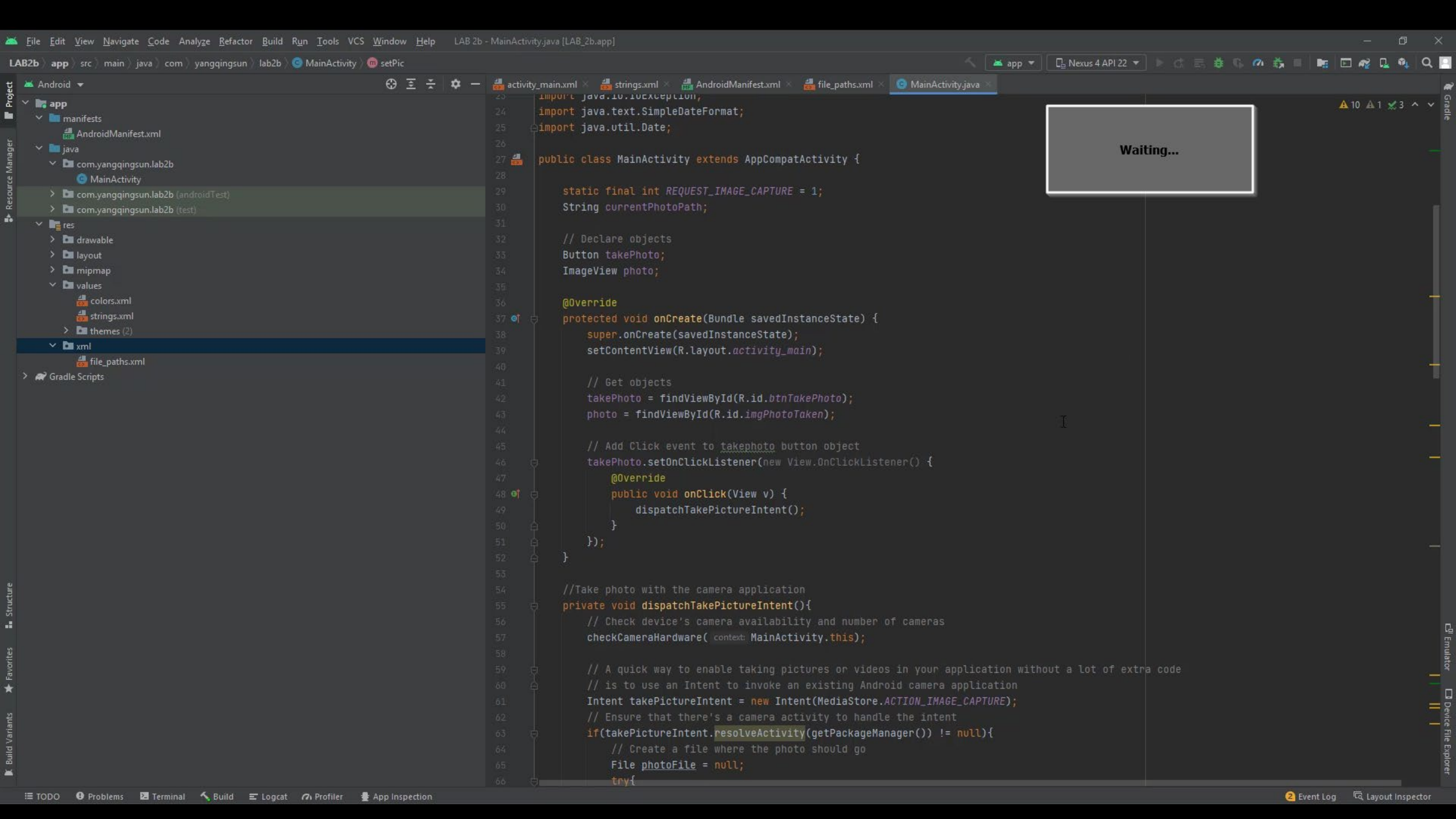
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public void onClick(View v) {
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//Take photo with the camera application
private void dispatchTakePictureIntent(){
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// Ensure that there's a camera activity to handle the intent
if(takePictureIntent.resolveActivity(getPackageManager()) != null){
// Create a file where the photo should go
File photoFile = null;
try{
Waiting...
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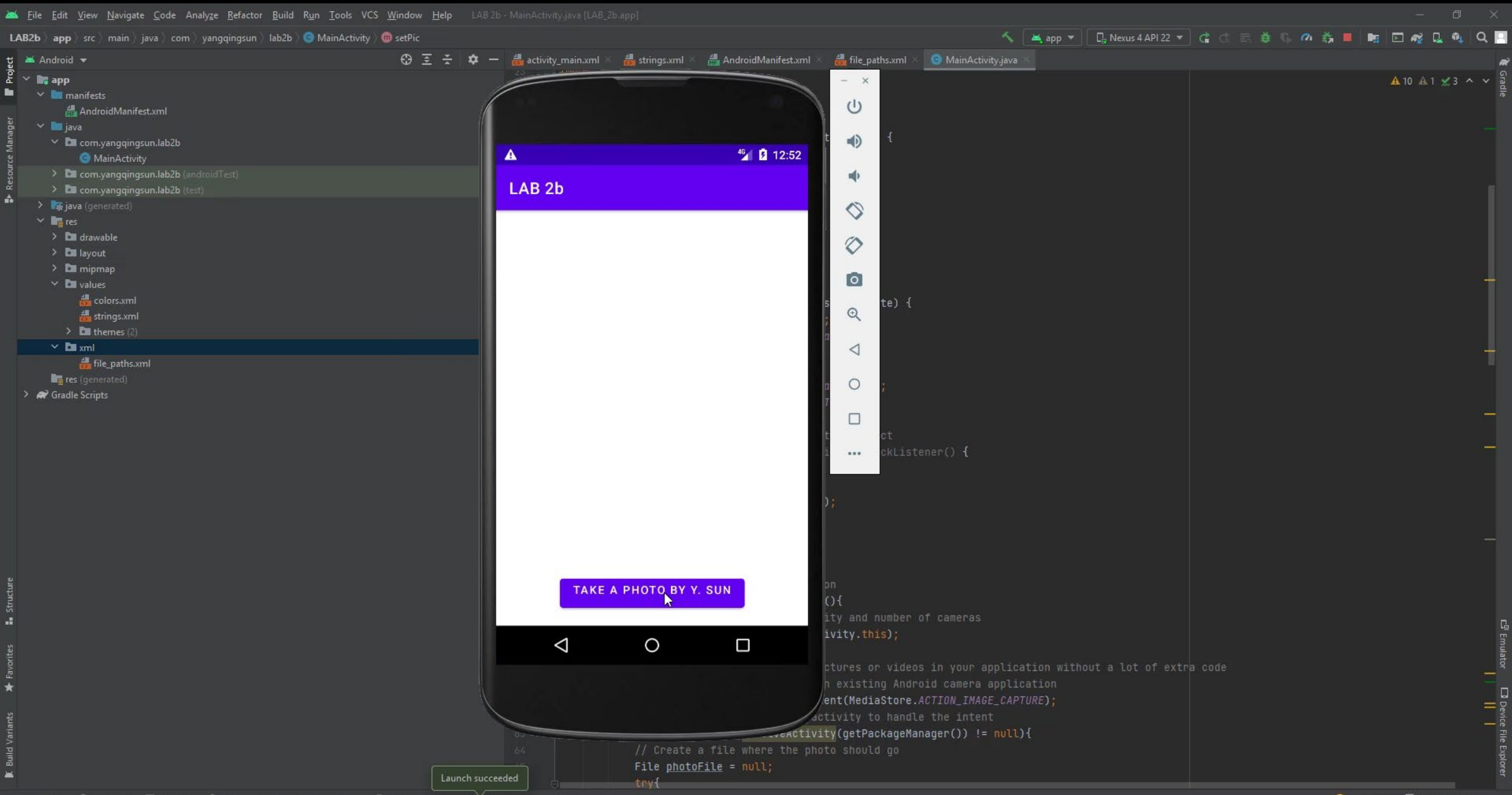
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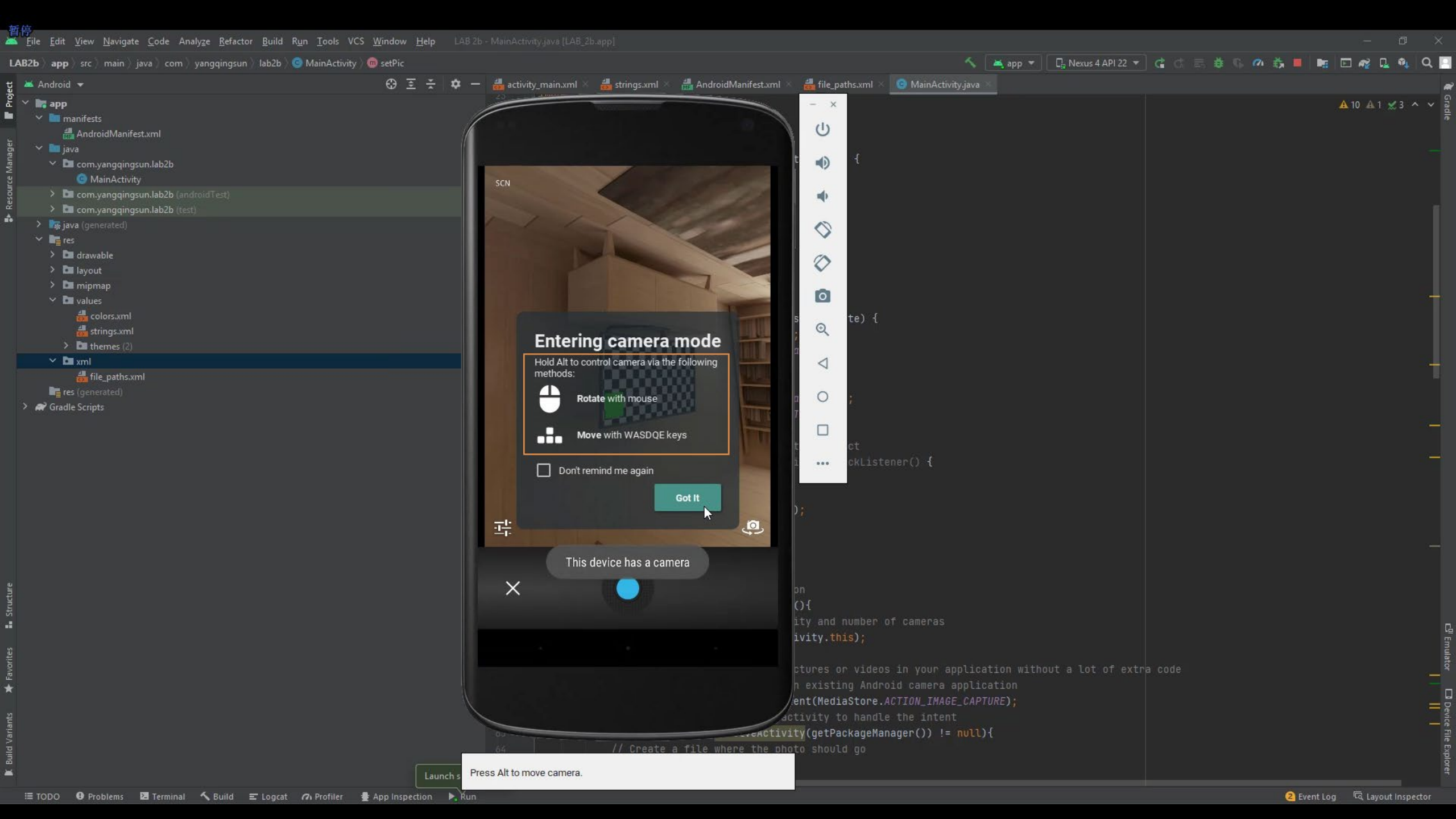
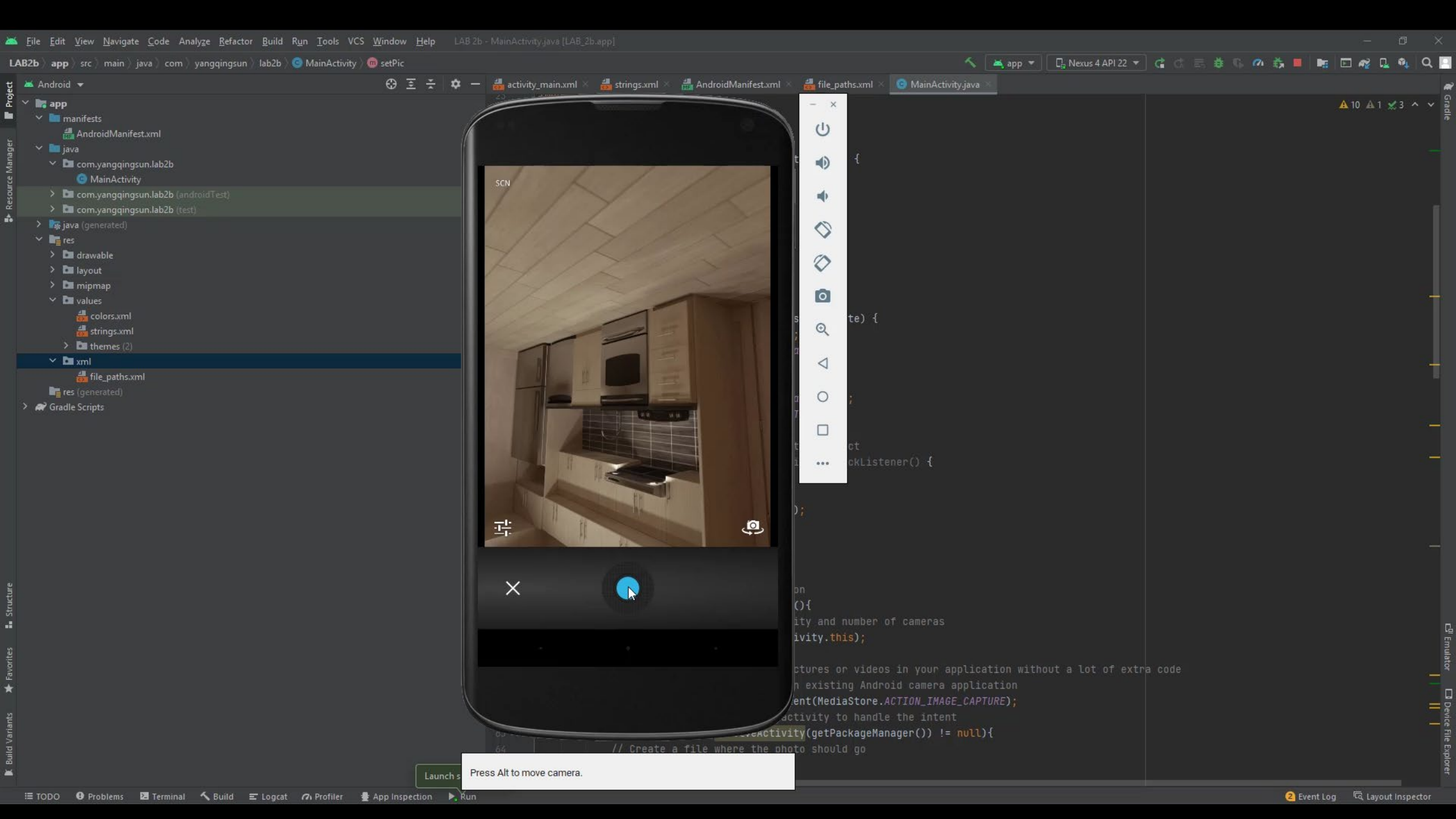
res (generated)
Gradle Scripts
12:52
LAB 2b
TAKE A PHOTO BY Y. SUN
// Create a file where the photo should go
File photoFile = null;
try{
Launch succeeded
TODO Problems Terminal Build Logcat Profiler App Inspection Run
Event Log Layout Inspector


SCN
Entering camera mode
Hold Alt to control camera via the following methods:
Rotate with mouse
Move with WASDQE keys
Don't remind me again
Got It
This device has a camera
Press Alt to move camera.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Launch s
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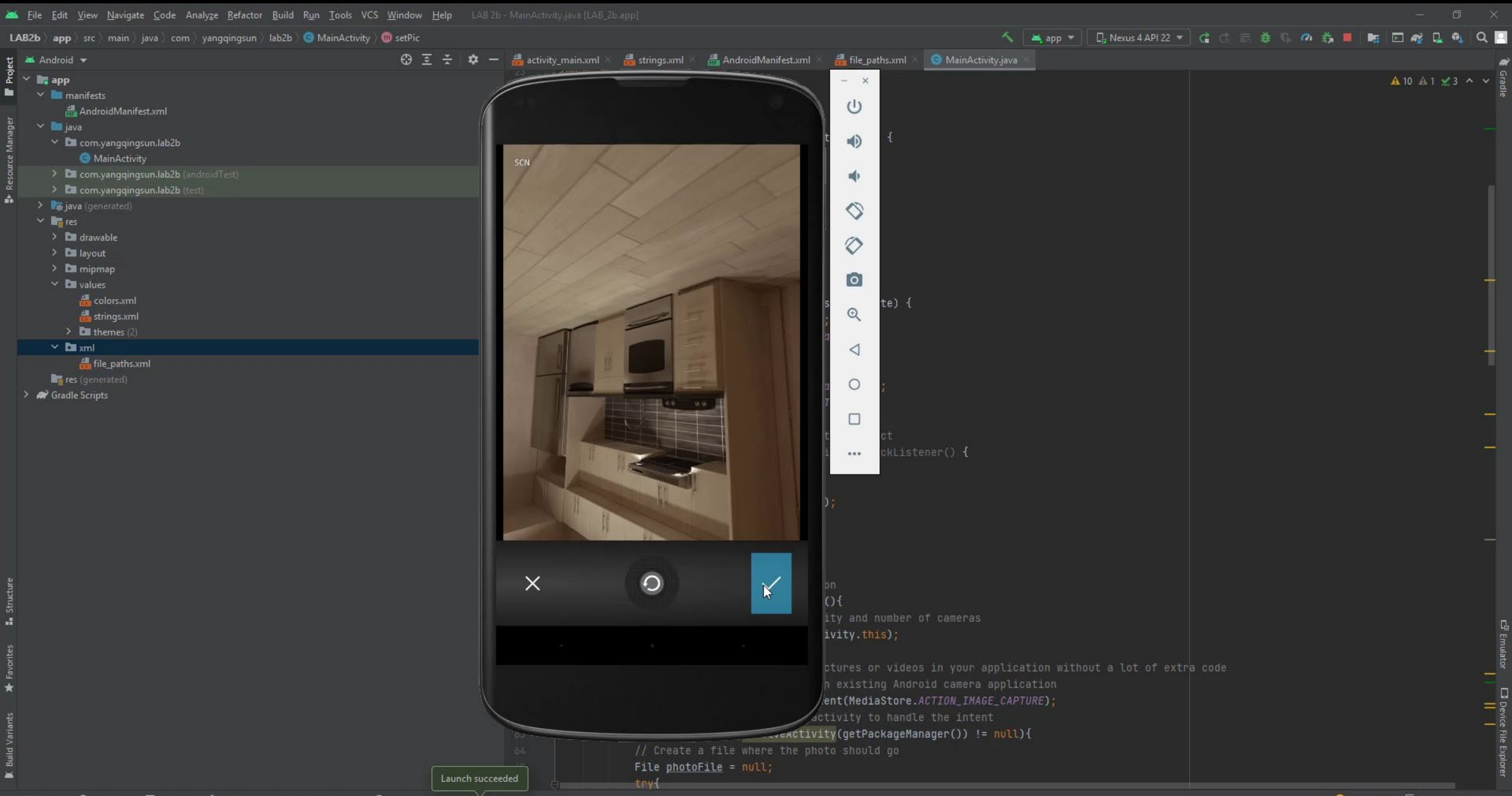
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Gradle Scripts
SCN
// Create a file where the photo should go
File photoFile = null;
try{
Launch succeeded
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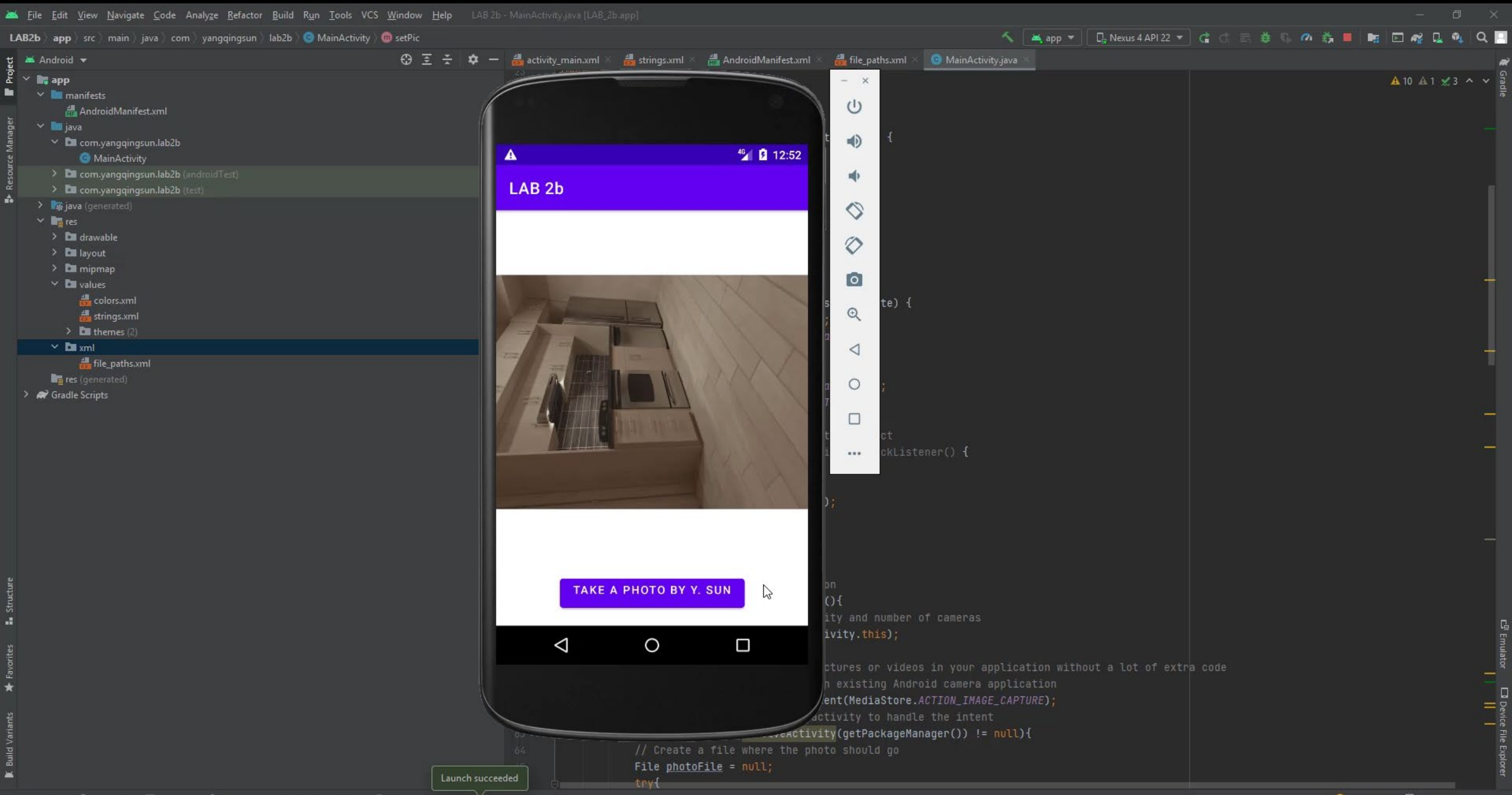
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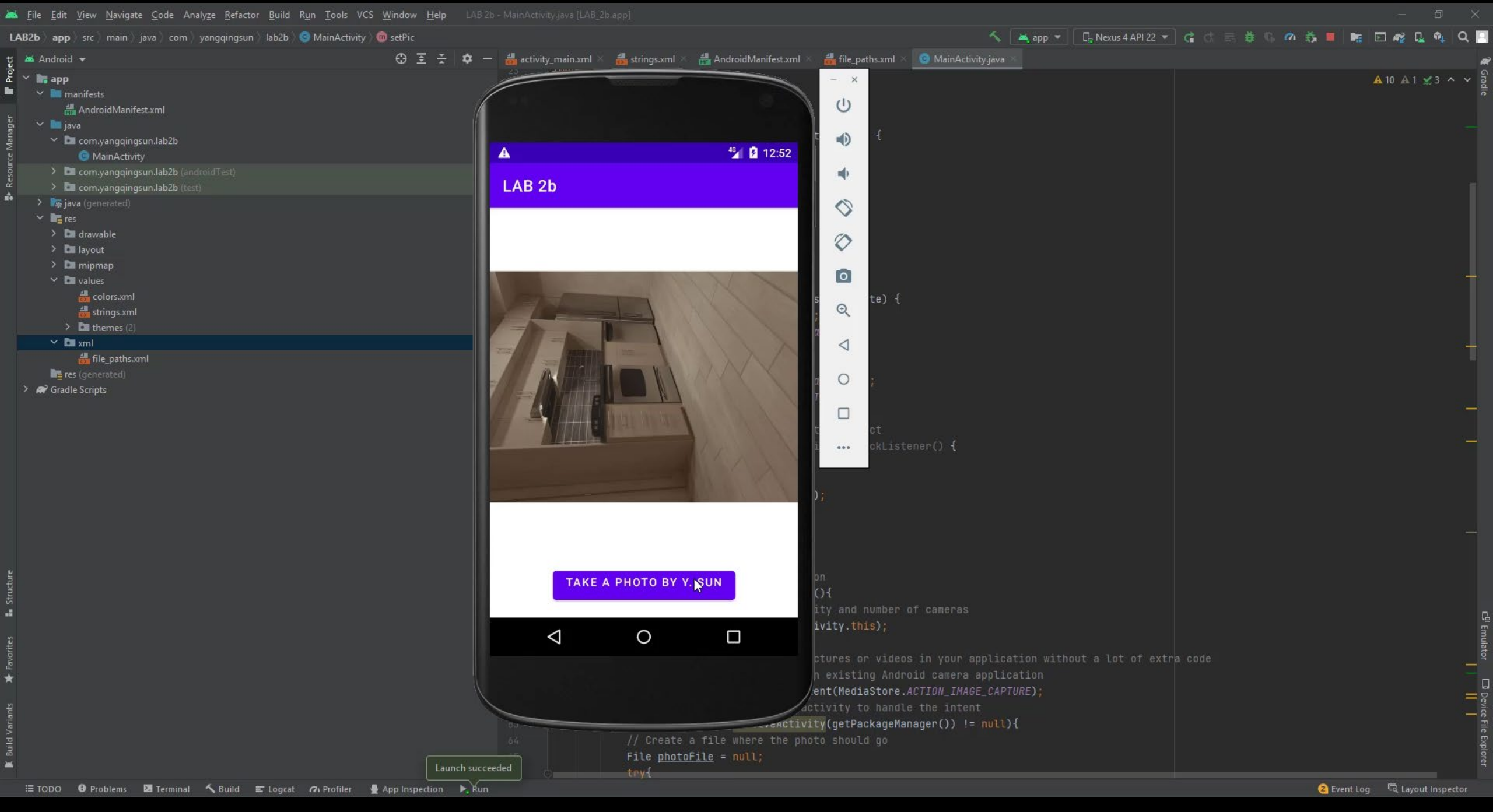
TAKE A PHOTO BY Y. SUN
Launch succeeded
TODO Problems Terminal Build Logcat Profiler App Inspection Run
Event Log Layout Inspector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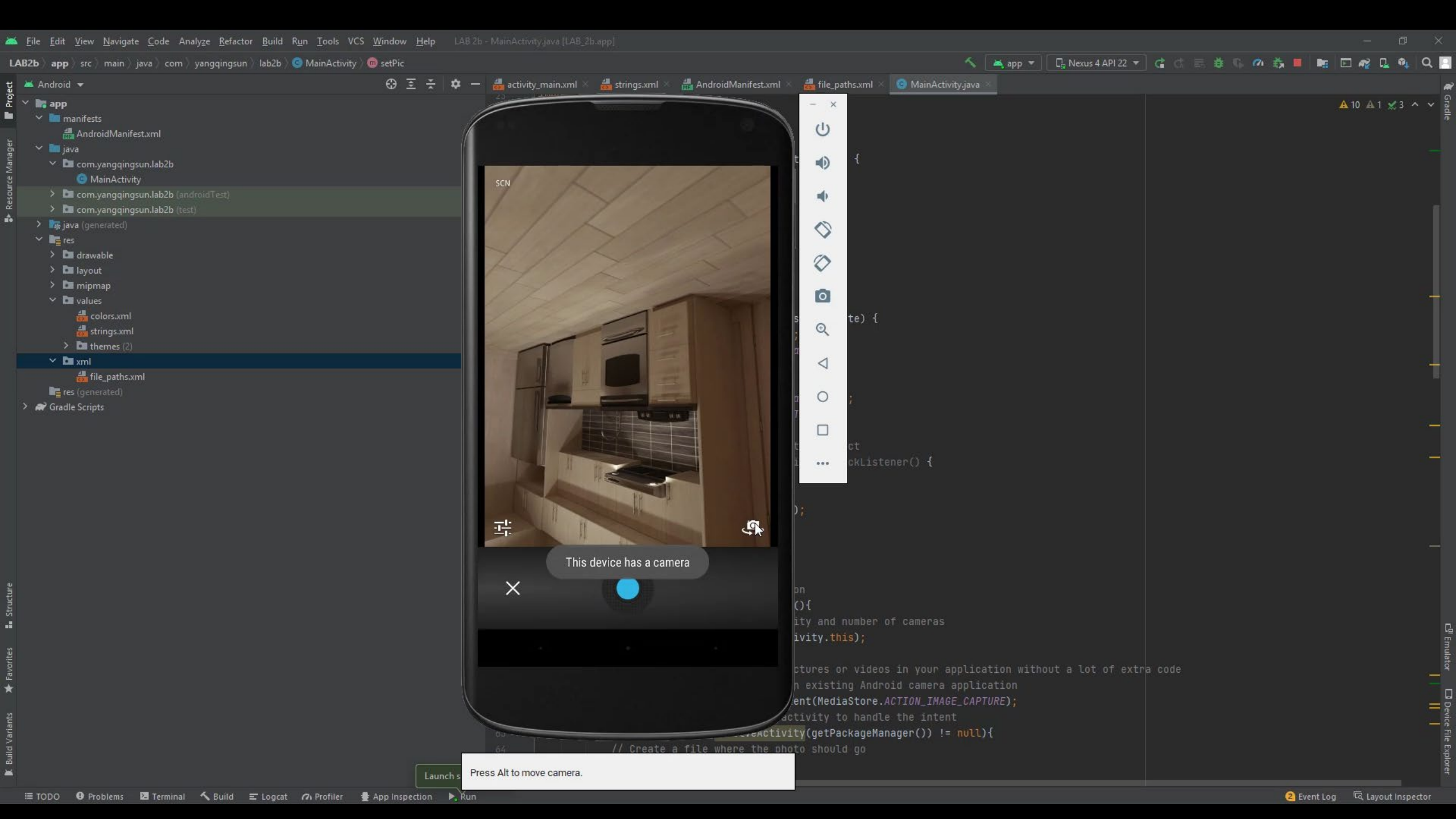
java
com.yangqingsun.lab2b
MainActivity
com.yangqingsun.lab2b (androidTest)
com.yangqingsun.lab2b (test)
java (generated)
res
drawable
layout
mipmap
values
colors.xml
strings.xml
themes (2)
xml
file_paths.xml
res (generated)
Gradle Scripts
12:52
LAB 2b
TAKE A PHOTO BY Y. SUN
Launch succeeded
TODO Problems Terminal Build Logcat Profiler App Inspection Run
Event Log Layout Inspector


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
LAB 2b - MainActivity.java [LAB_2b.app]
LAB2b app src main java com yangqingsun lab2b MainActivity setPic
app Nexus 4 API 22
Android
activity_main.xml strings.xml AndroidManifest.xml file_paths.xml MainActivity.java
app
manifests
AndroidManifest.xml
java
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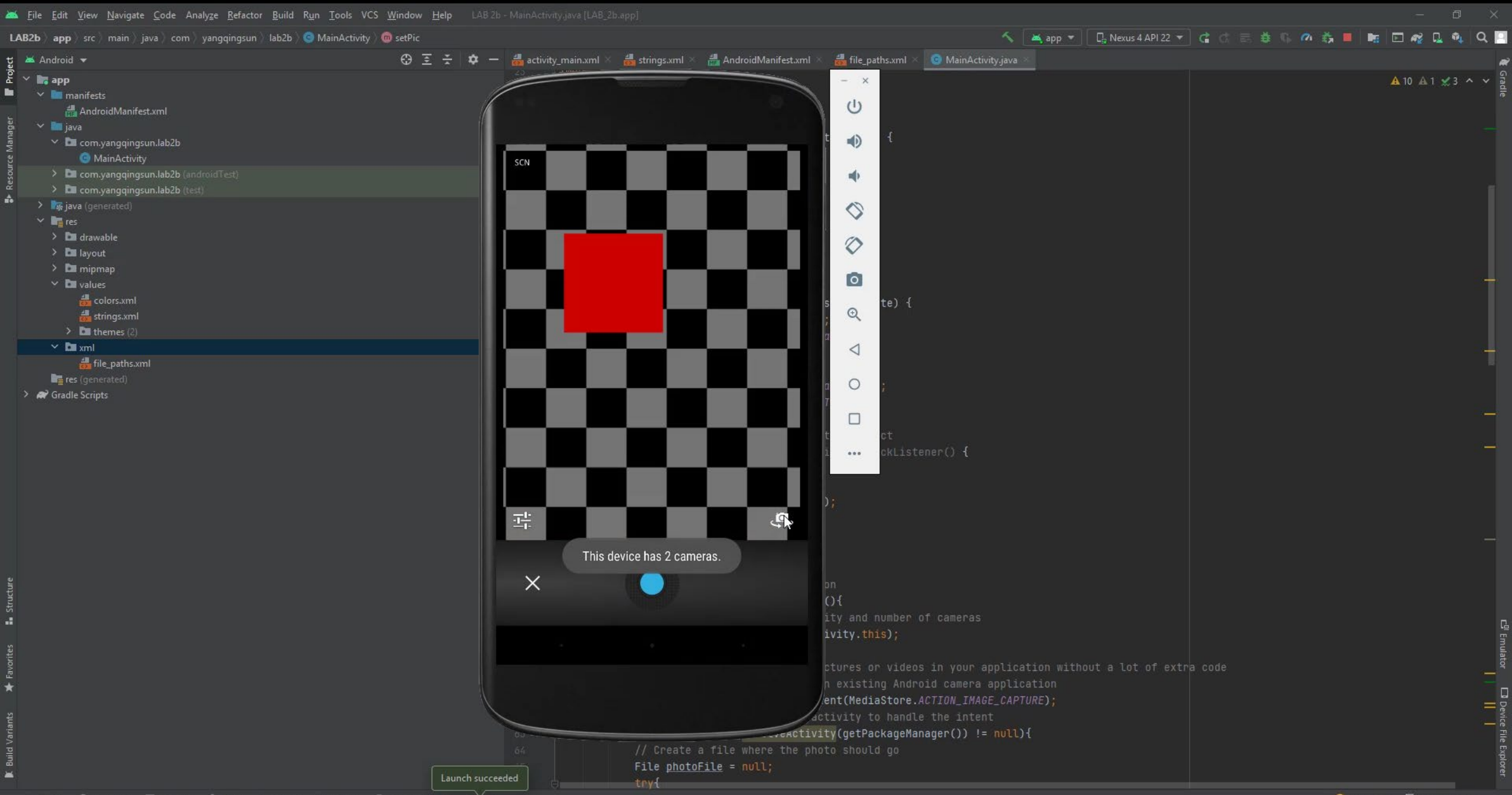
res (generated)
Gradle Scripts
SCN
This device has a camera
Press Alt to move camera.
Launch s
TODO Problems Terminal Build Logcat Profiler App Inspection Run
Event Log Layout Inspector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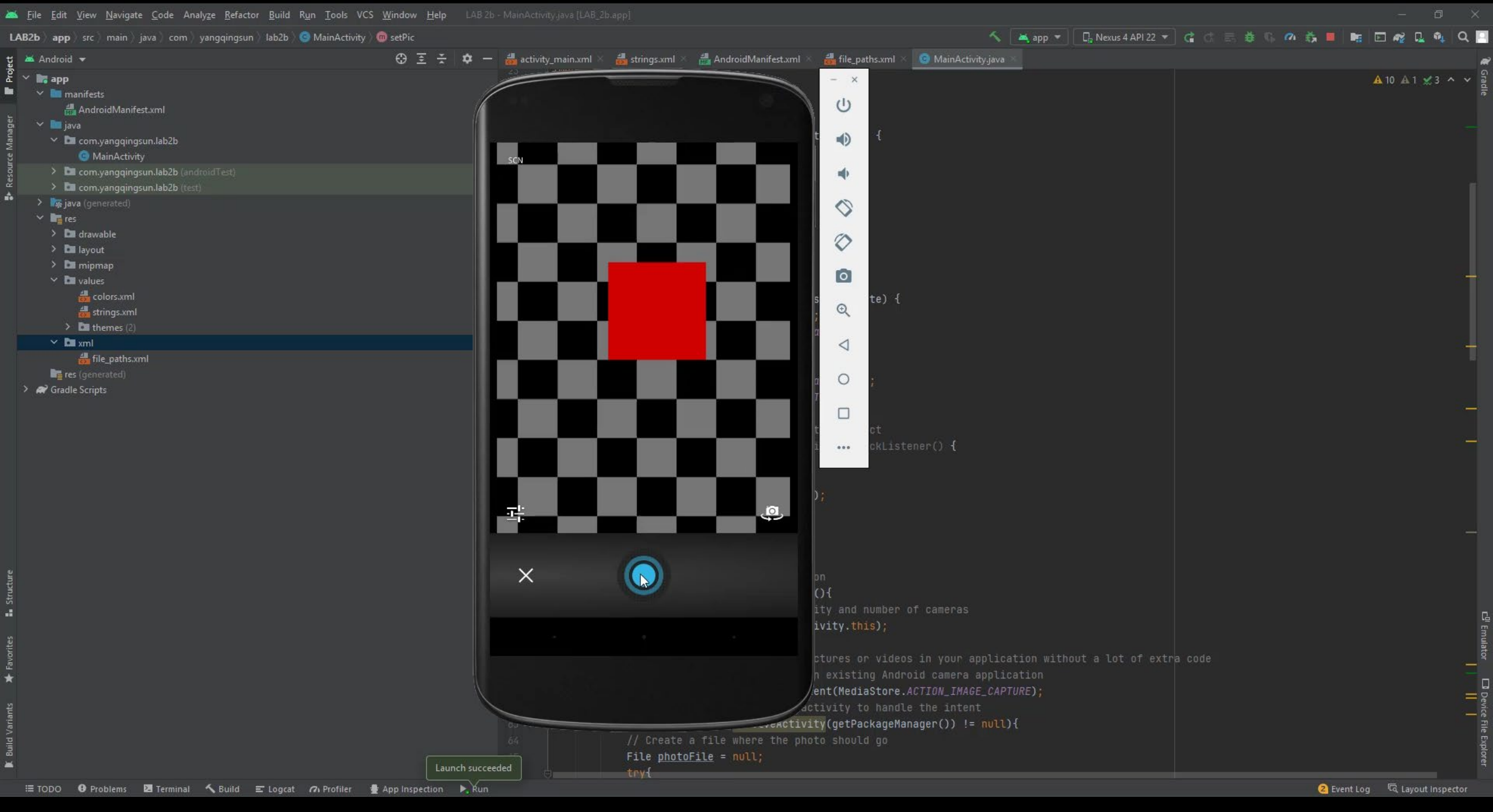
file_paths.xml
res (generated)
Gradle Scripts
SCN
This device has 2 cameras.
// Create a file where the photo should go
File photoFile = null;
try{
Launch succeeded
TODO Problems Terminal Build Logcat Profiler App Inspection Run
Event Log Layout Inspector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SCN
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File photoFile = null;
try{
Launch succeeded
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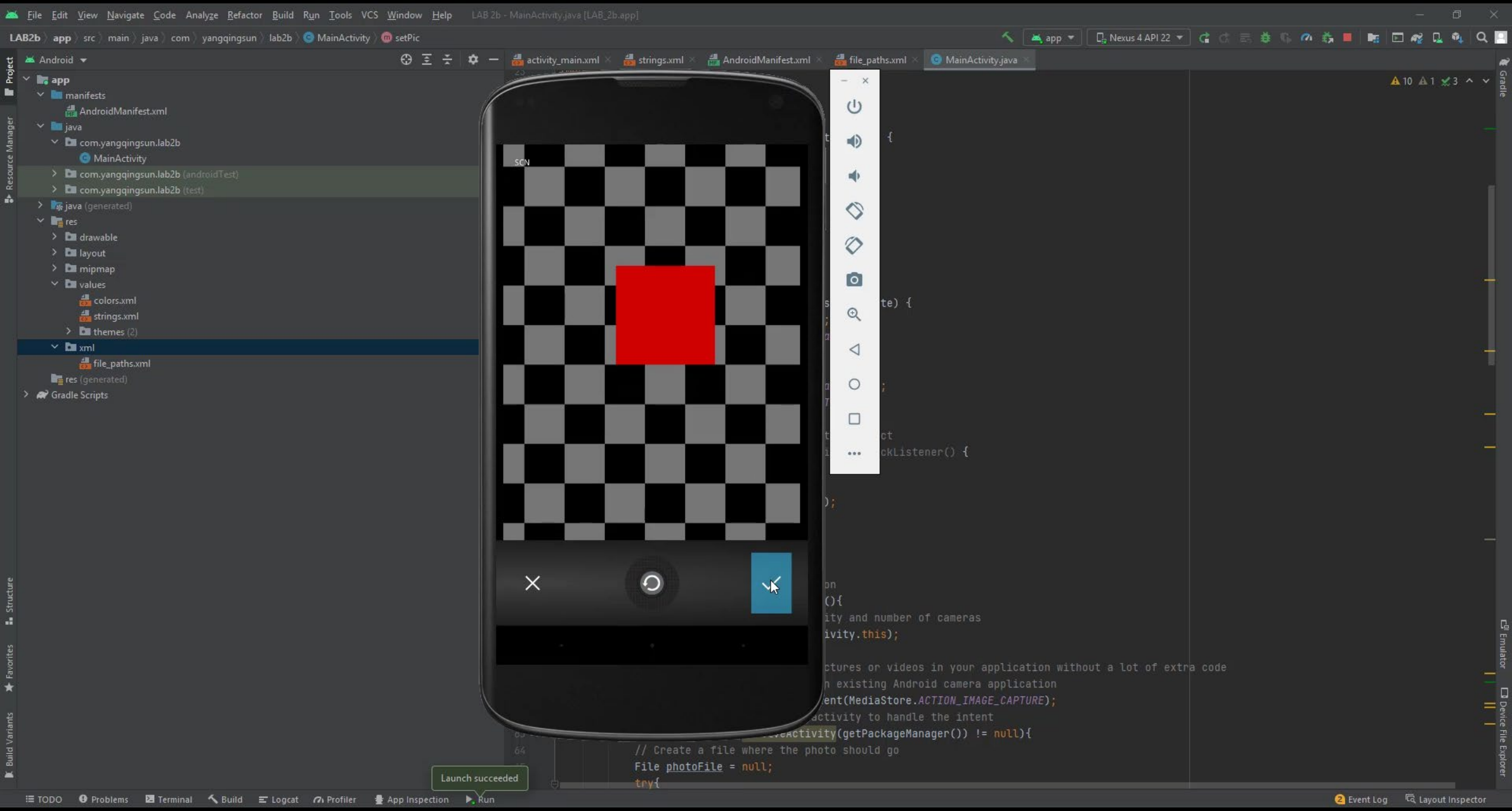
Event Log Layout Inspector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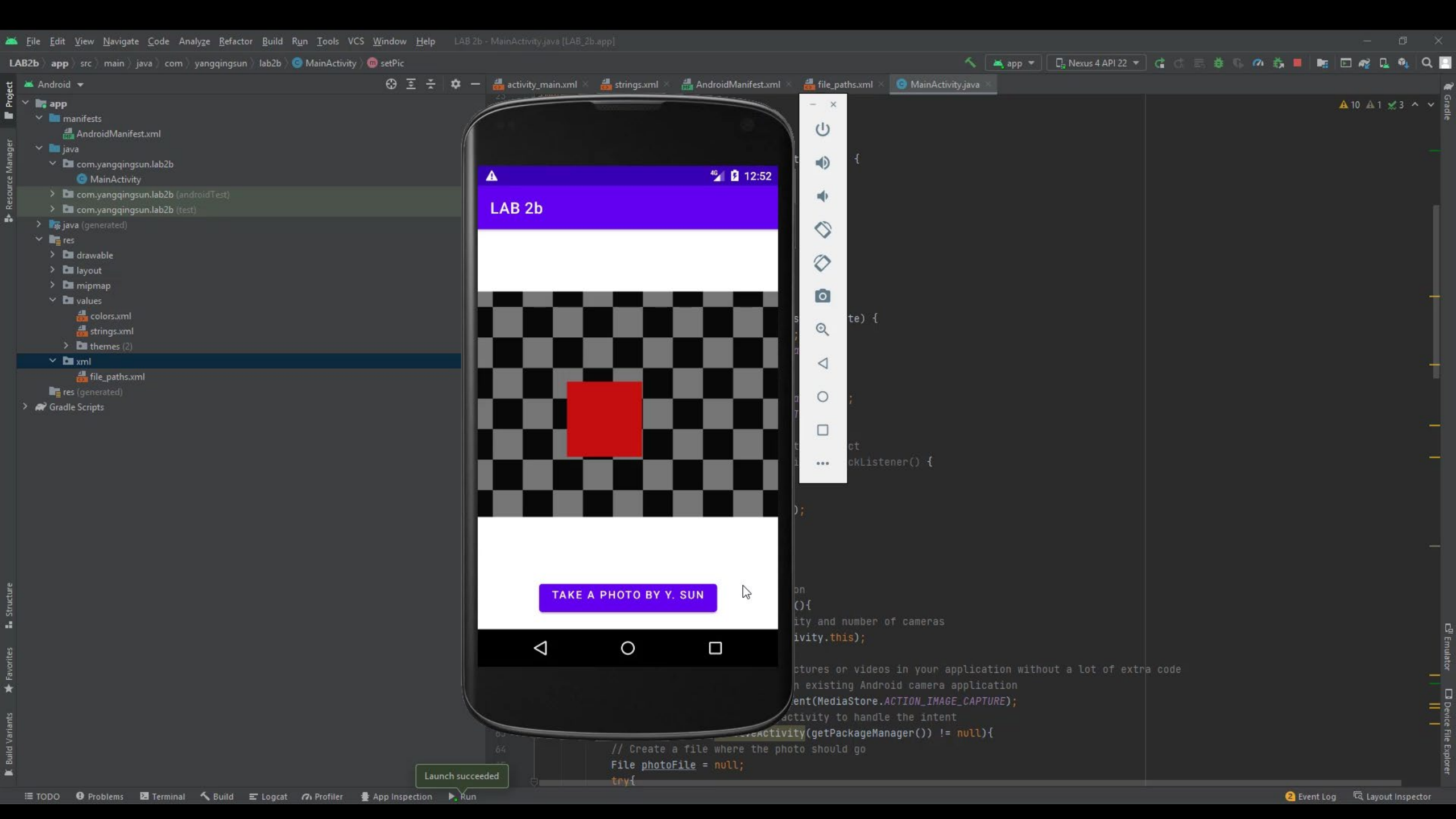
Gradle Scripts
SCN
// Create a file where the photo should go
File photoFile = null;
try{
Launch succeeded
TODO
Problems
Terminal
Build
Logcat
Profiler
App Inspection
Run
Event Log
Layout Inspector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