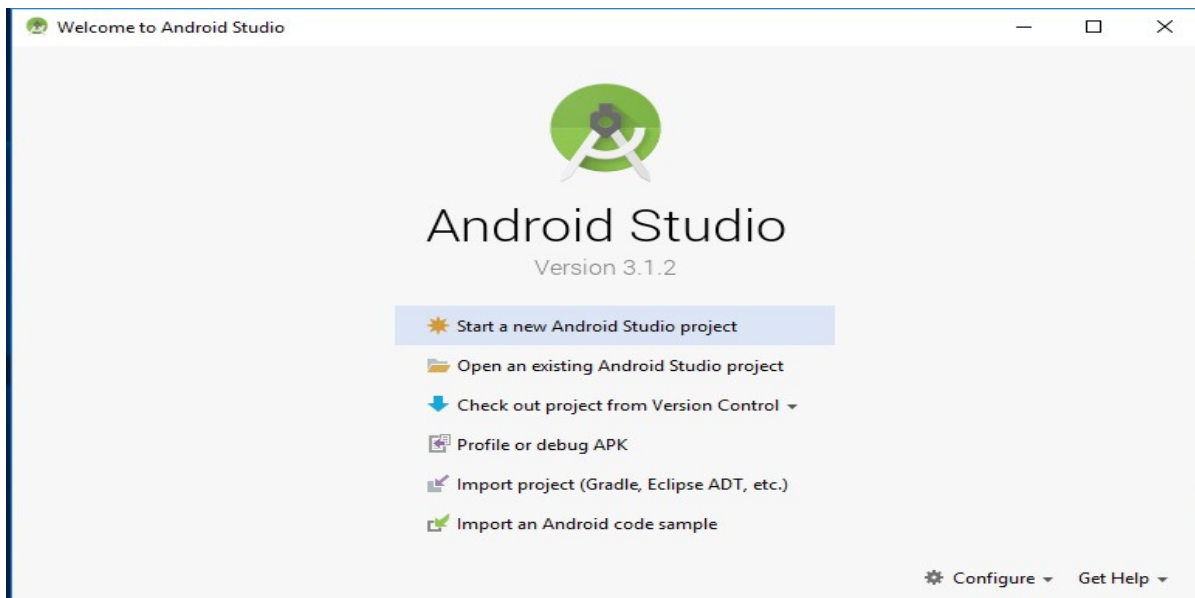


First Android Application

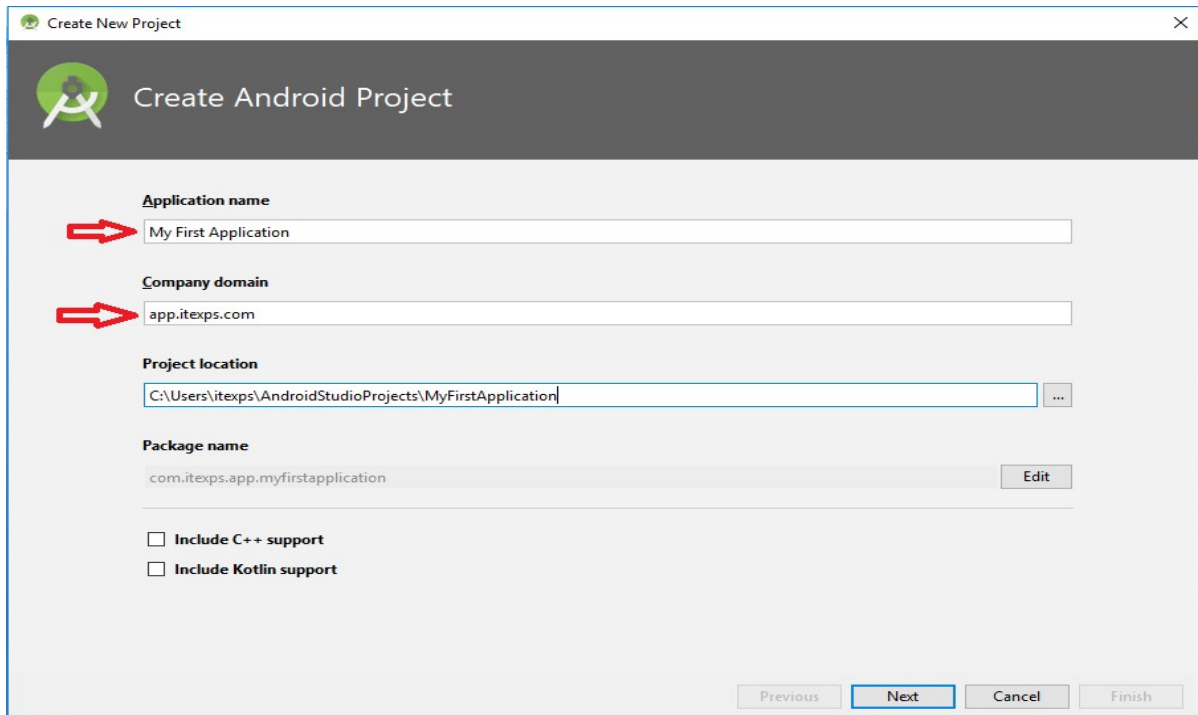
Agenda:

In this lab we are going to add a button and a text component in app. By clicking the button, the text will show up.

- 1- Run Android Studio in your computer.
- 2- Start a new Android Studio Project.



- 3- Name the project "My First Application" and Company domain="app.itexps.com"



Create New Project

Create Android Project

Application name
My First Application

Company domain
app.itexps.com

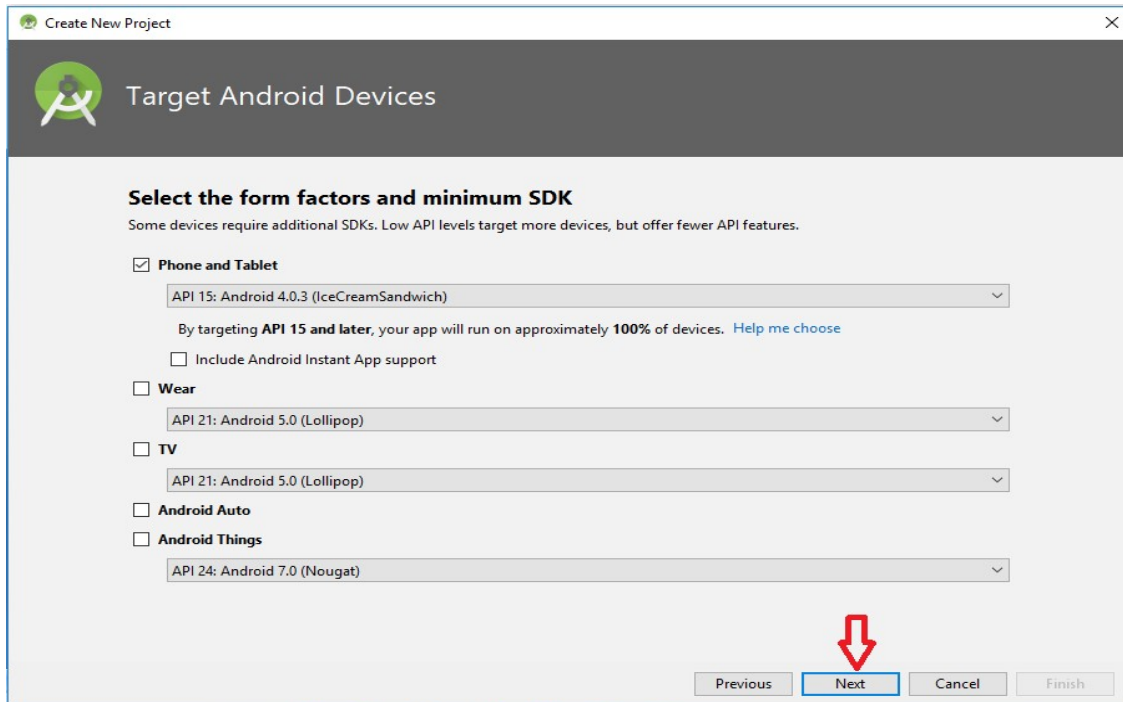
Project location
C:\Users\itexps\AndroidStudioProjects\MyFirstApplication

Package name
com.itexps.app.myfirstapplication

☐ Include C++ support
☐ Include Kotlin support

Previous Next Cancel Finish

4- Click the "Next" button



Create New Project

Target Android Devices

Select the form factors and minimum SDK
Some devices require additional SDKs. Low API levels target more devices, but offer fewer API features.

☒ **Phone and Tablet**
API 15: Android 4.0.3 (IceCreamSandwich)
By targeting **API 15 and later**, your app will run on approximately **100%** of devices. [Help me choose](#)
☐ Include Android Instant App support

☐ **Wear**
API 21: Android 5.0 (Lollipop)

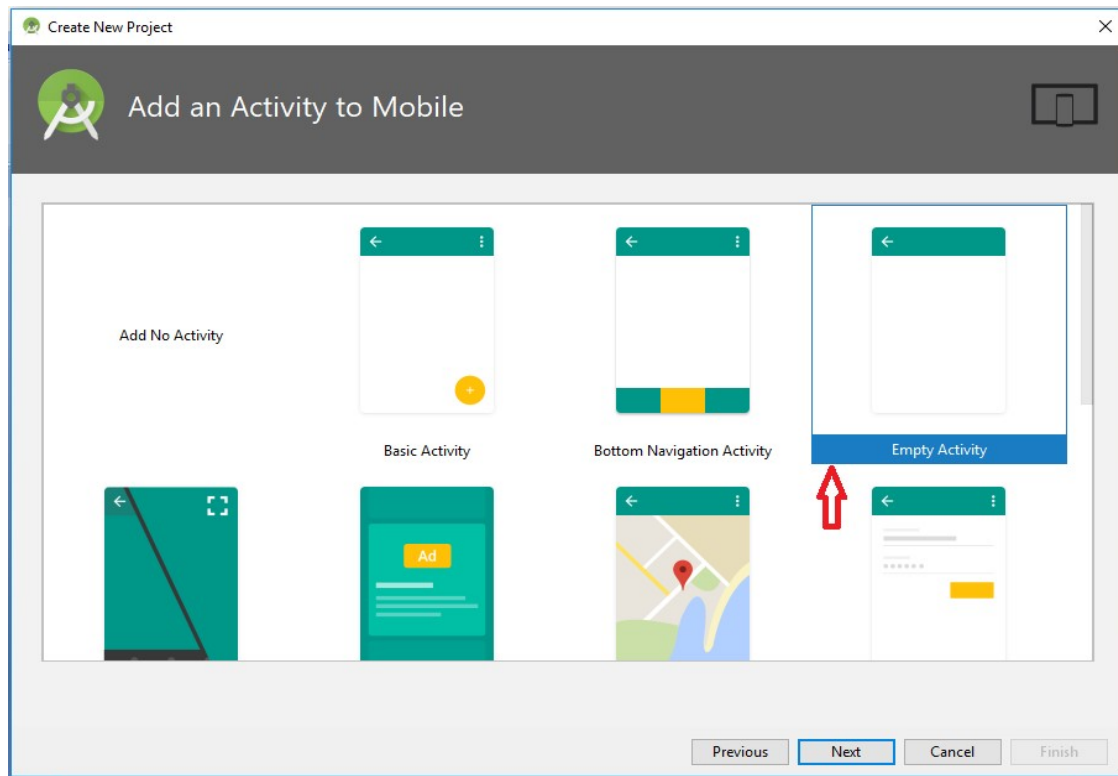
☐ **TV**
API 21: Android 5.0 (Lollipop)

☐ **Android Auto**

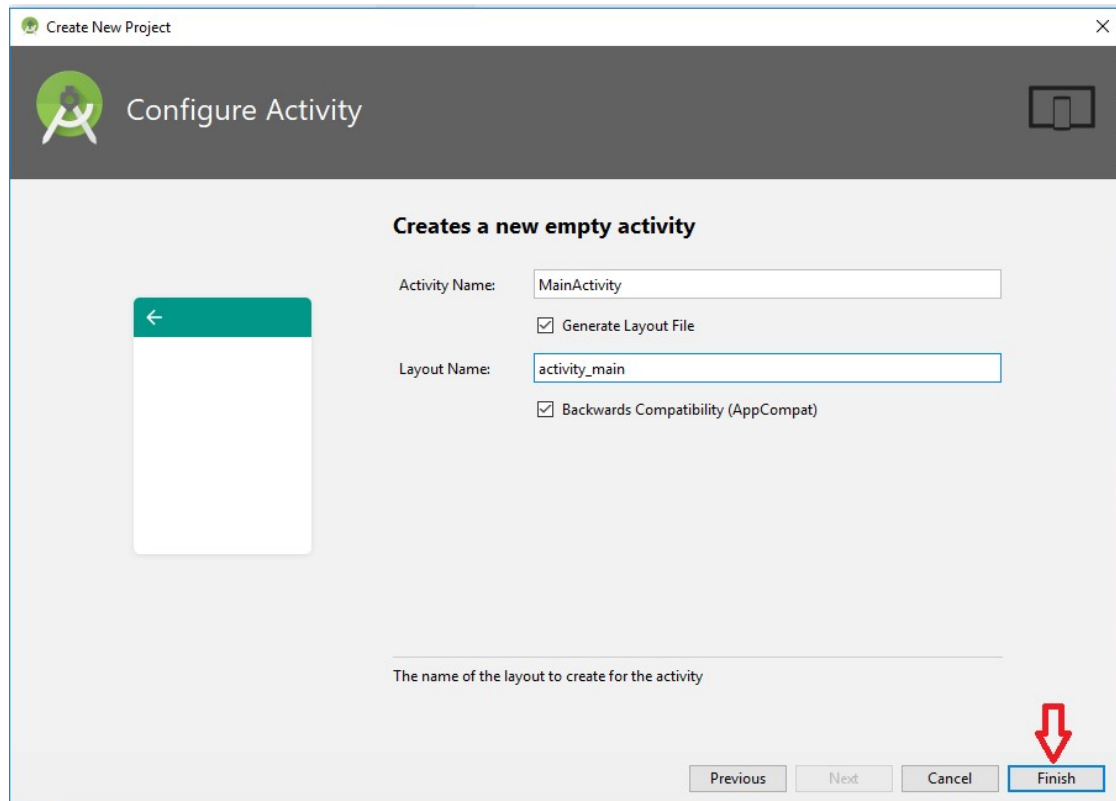
☐ **Android Things**
API 24: Android 7.0 (Nougat)

Previous **Next** Cancel Finish

5- Select the “Empty Activity” for the project.

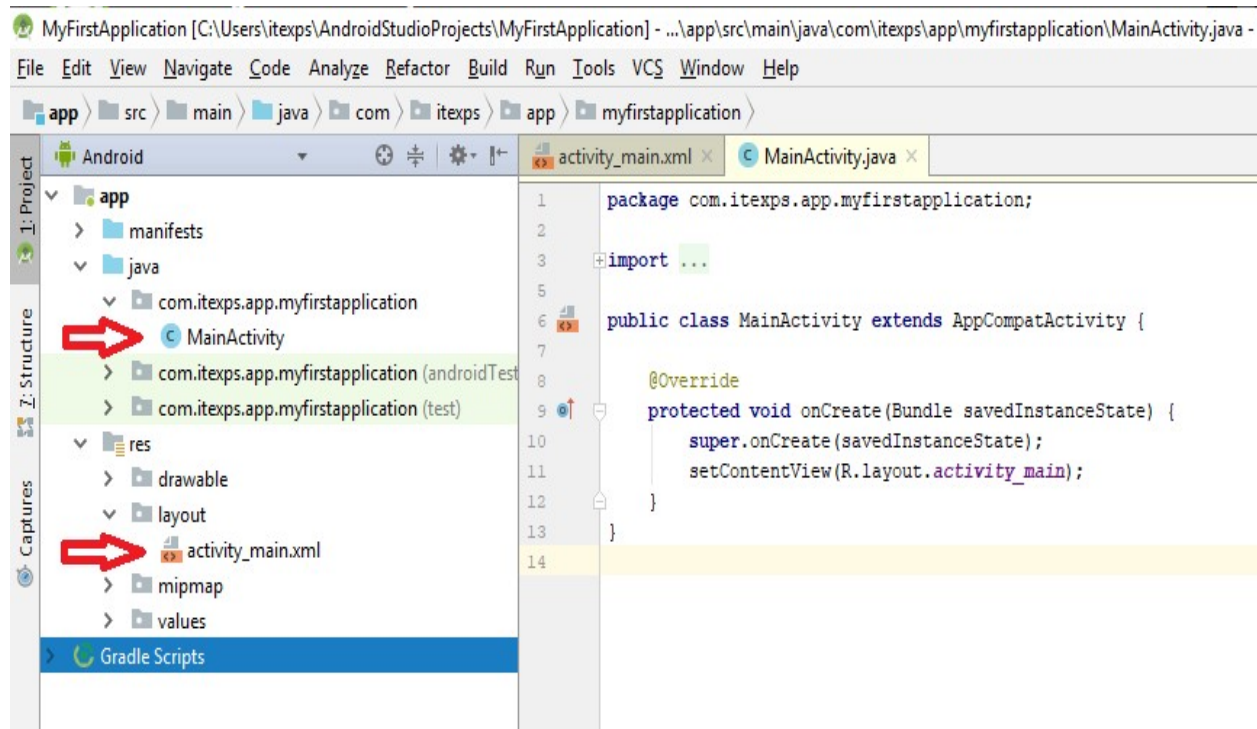


6- Click the “Finish” button



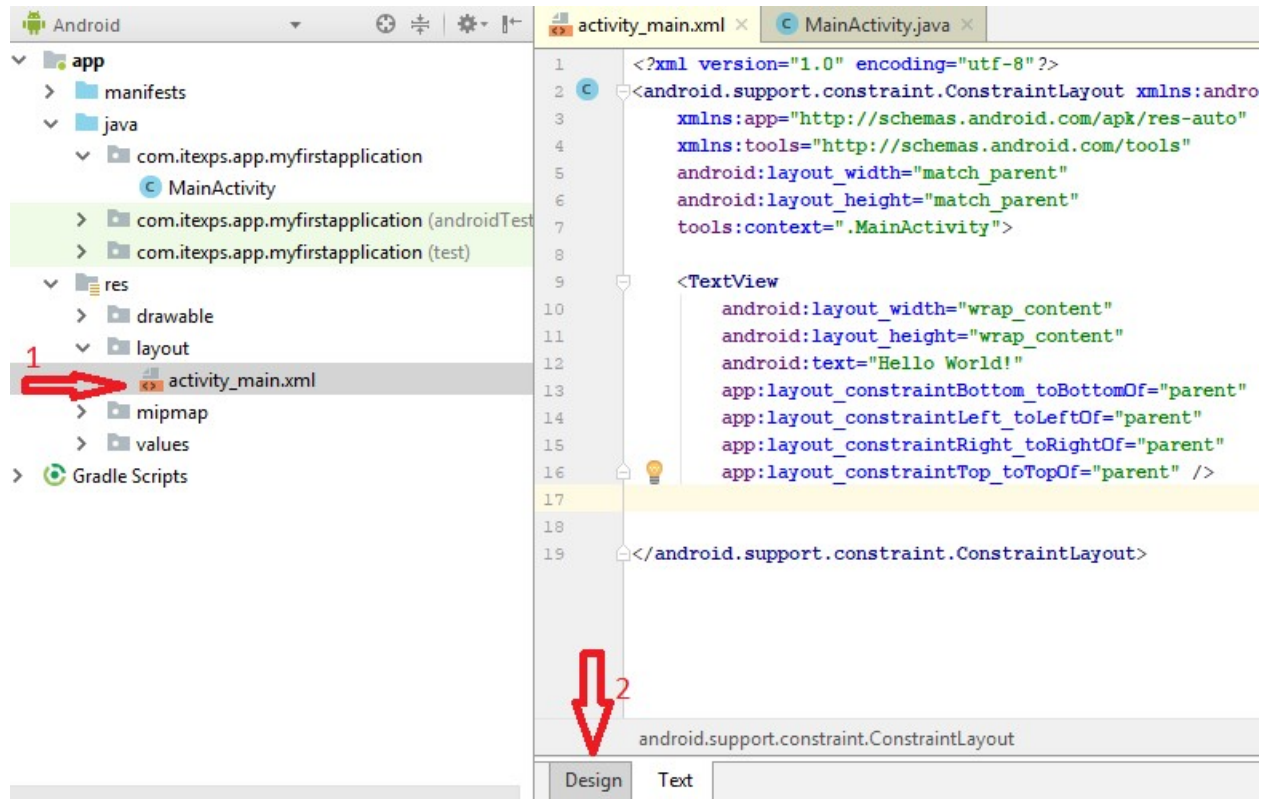
7- Android Studio project will be opened and the project structure will be like bellow:

First Android Application



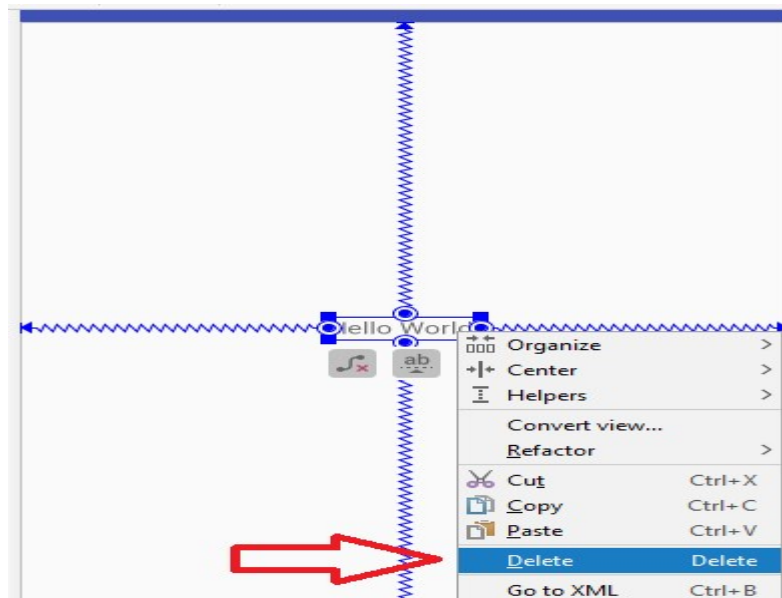
8- Click the “activity_main.xml” in left pane (navigation bar) and go to” Design” tab

First Android Application



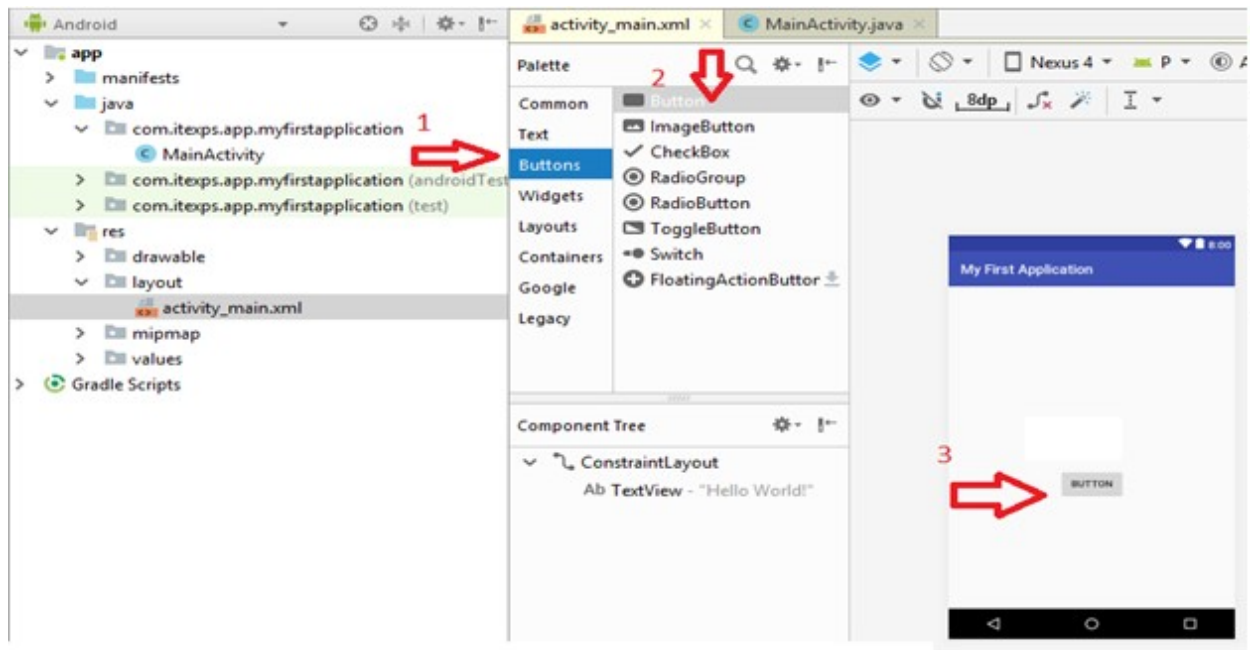
9- Right click on the “HelloWorld” component if it is there and delete that.

First Android Application



10-In Design page, click the “Buttons” from Palette pane, drag a “Button” and drop it in your page in right side pane.

First Android Application

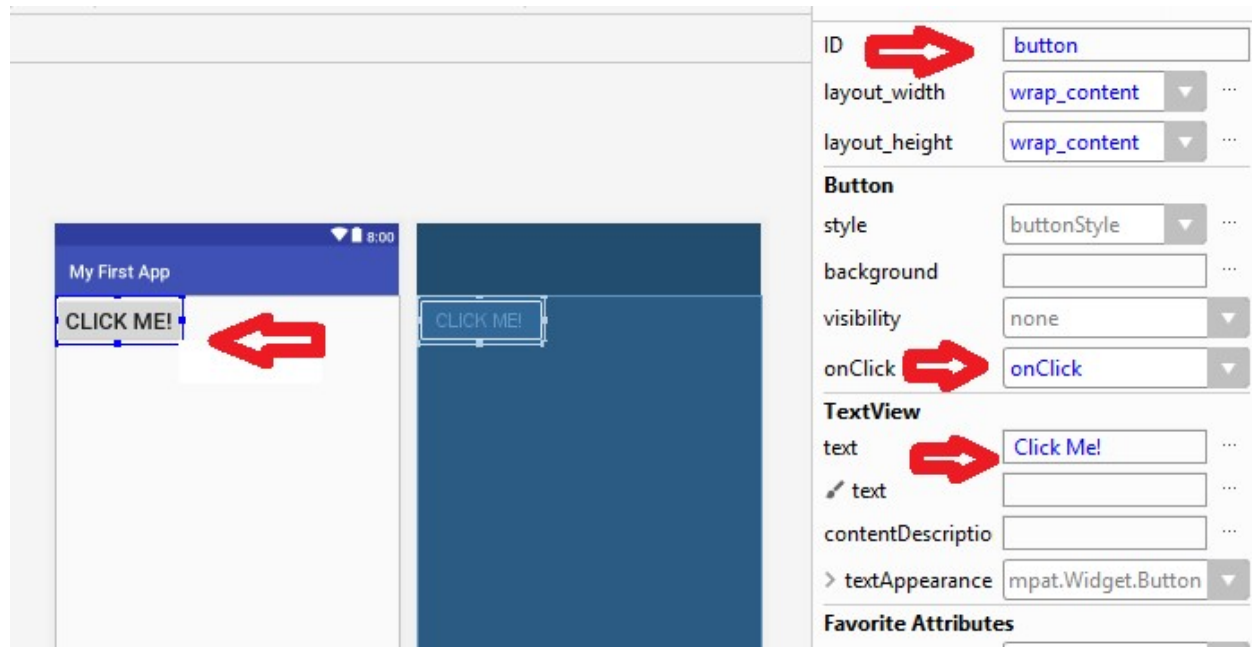


11- Click on the button and change attributes:

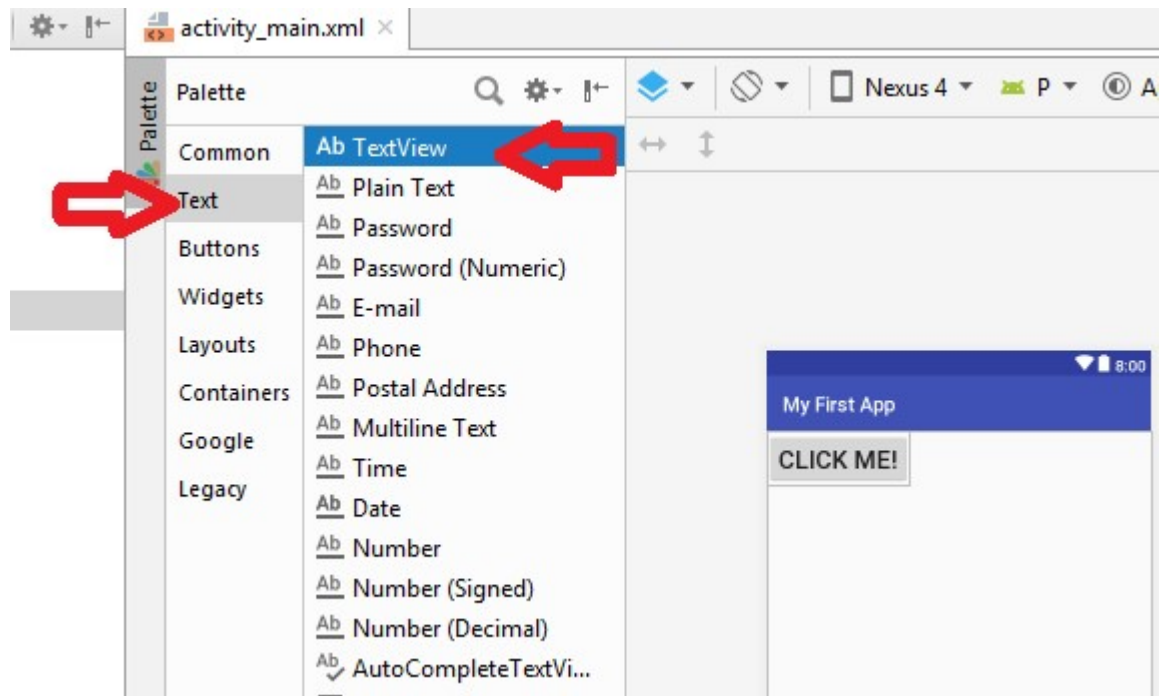
ID=button

OnClick=onClick

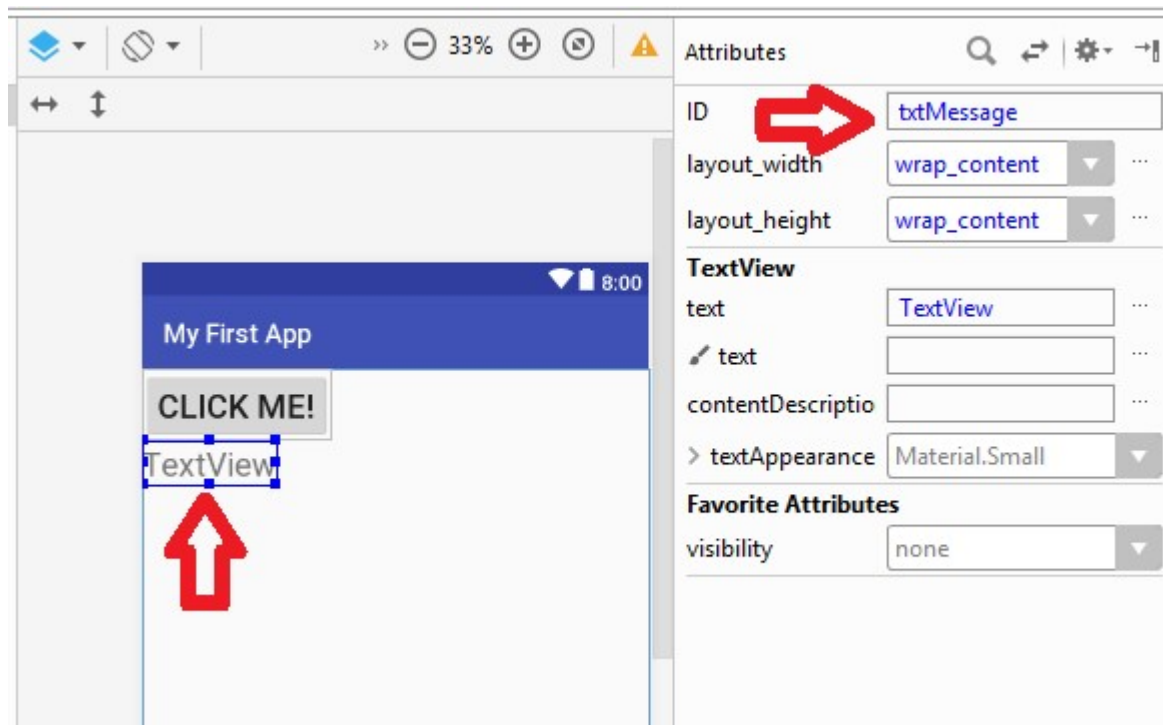
We are going to refer to this component later in code by its ID. Make sure if you change the ID in attribute window, your code needs to be changed.



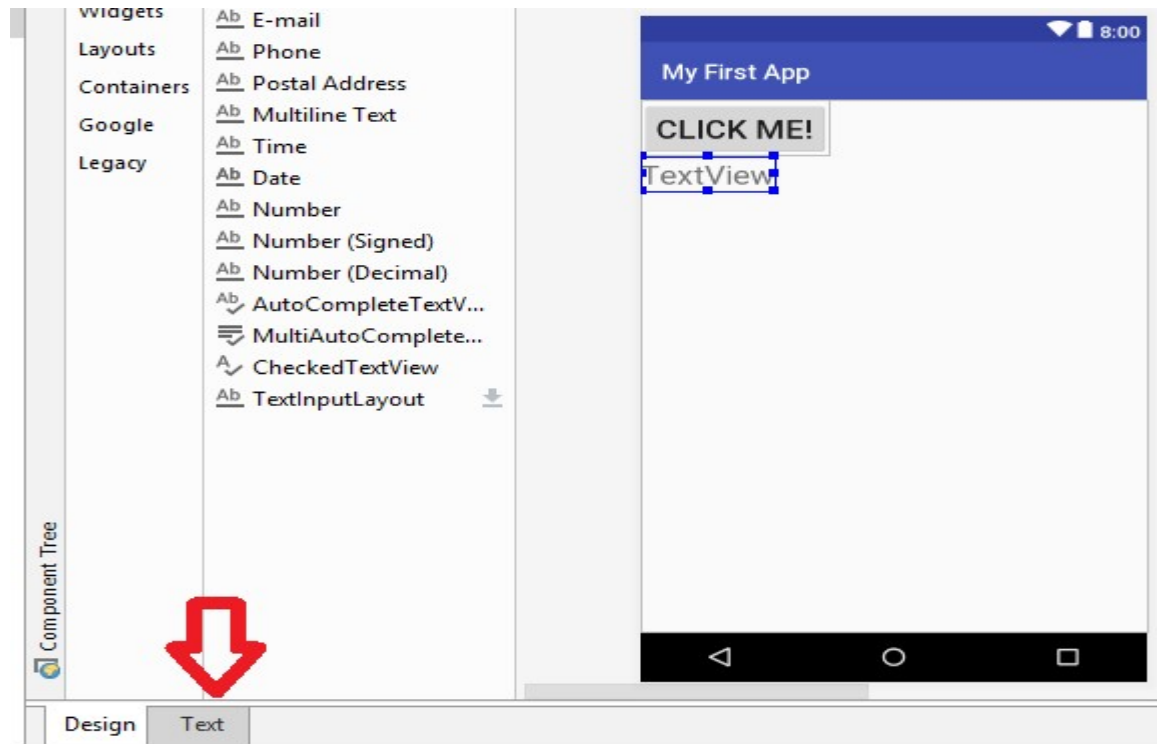
12-Add a "TextView" component.



13-Click the textbox and change attributes.
ID= txtMessage



- 14- You can change the font size for button component and “TextView” component.
To do that go to “Text”



15-Add bellow line of code to components.

```
android:textSize="25dp"
```

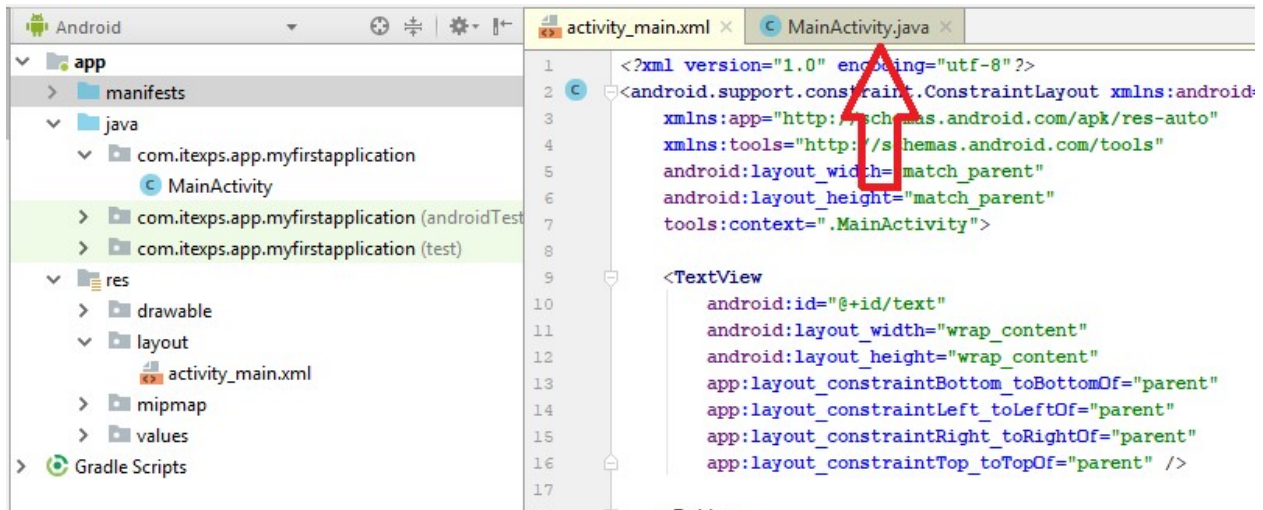
First Android Application

```
8
9
10 <Button
11     android:id="@+id/button"
12     android:textSize="25dp"
13     android:layout_width="wrap_content"
14     android:layout_height="wrap_content"
15     android:layout_column="0"
16     android:layout_row="0"
17     android:onClick="onClick"
18     android:text="Click Me!" />
19
20 <TextView
21     android:id="@+id/txtMessage"
22     android:layout_width="wrap_content"
23     android:layout_height="wrap_content"
24     android:layout_column="0"
25     android:layout_row="1"
26     android:text="TextView"
27     android:textSize="25dp" />
28 </android.widget.GridLayout>
```

16-Now you have a textbox and a button in your app.

17-Click the "MainActivity.java" to change the code.

First Android Application



18-In main activity, Create a method name it `onClick` .and add this code.

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

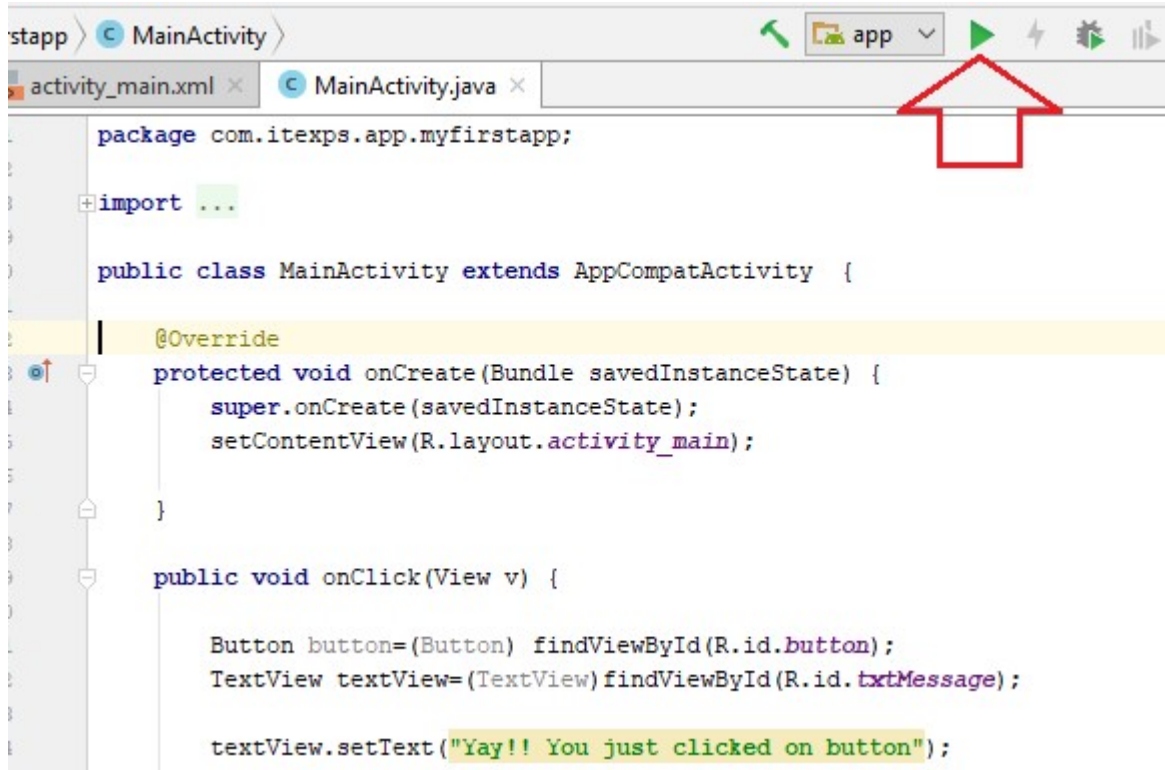
```
    Button button=(Button) findViewById(R.id.button);
    TextView textView=(TextView)findViewById(R.id.txtMessage);
```

```
    textView.setText("Yay!! You just clicked on button");
```

```
}
```

19-Run your application by clicking the green Play Icon .

First Android Application



```
stapp > MainActivity >
activity_main.xml x MainActivity.java x
package com.itexps.app.myfirstapp;

import ...

public class MainActivity extends AppCompatActivity {

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

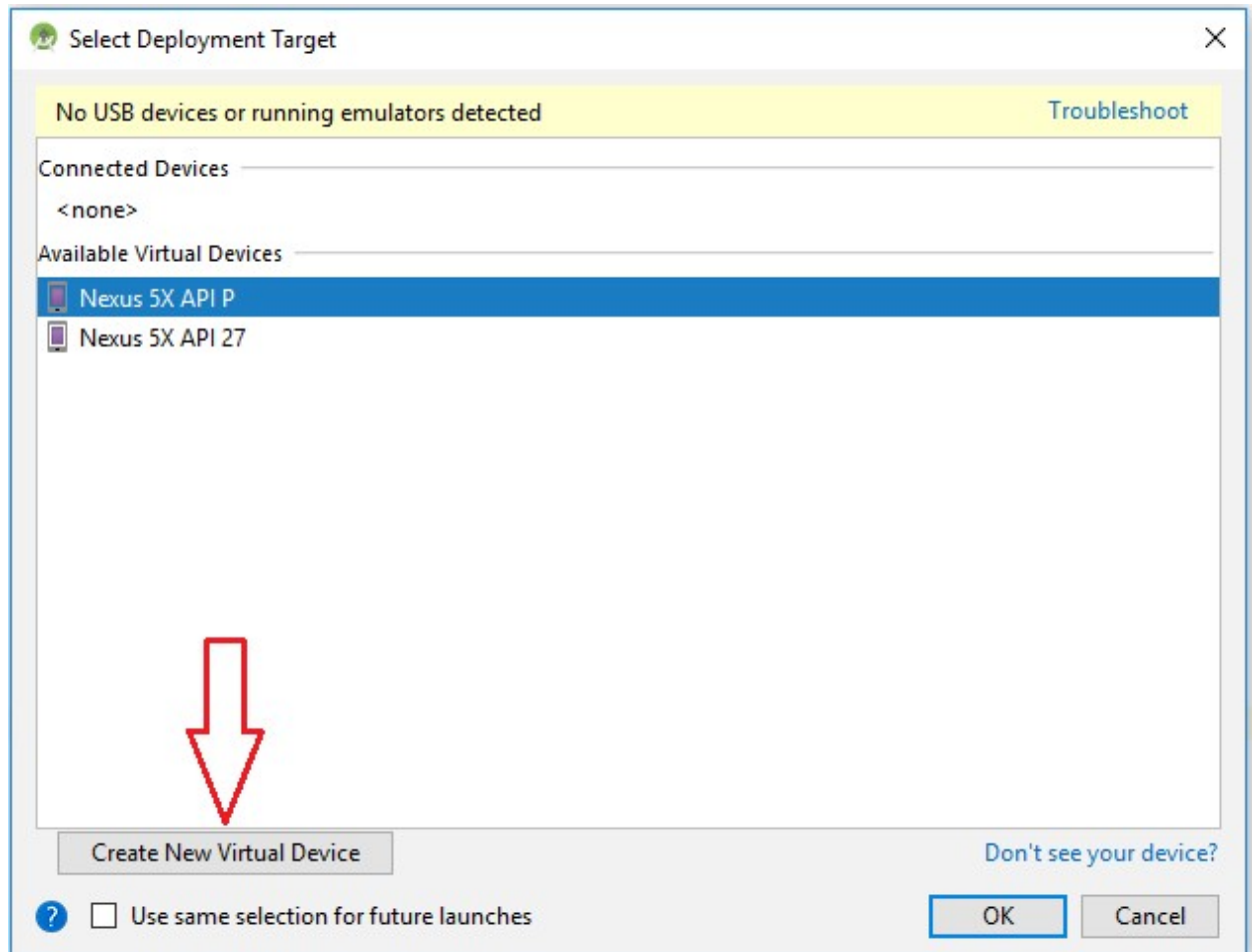
    public void onClick(View v) {

        Button button=(Button) findViewById(R.id.button);
        TextView textView=(TextView) findViewById(R.id.txtMessage);

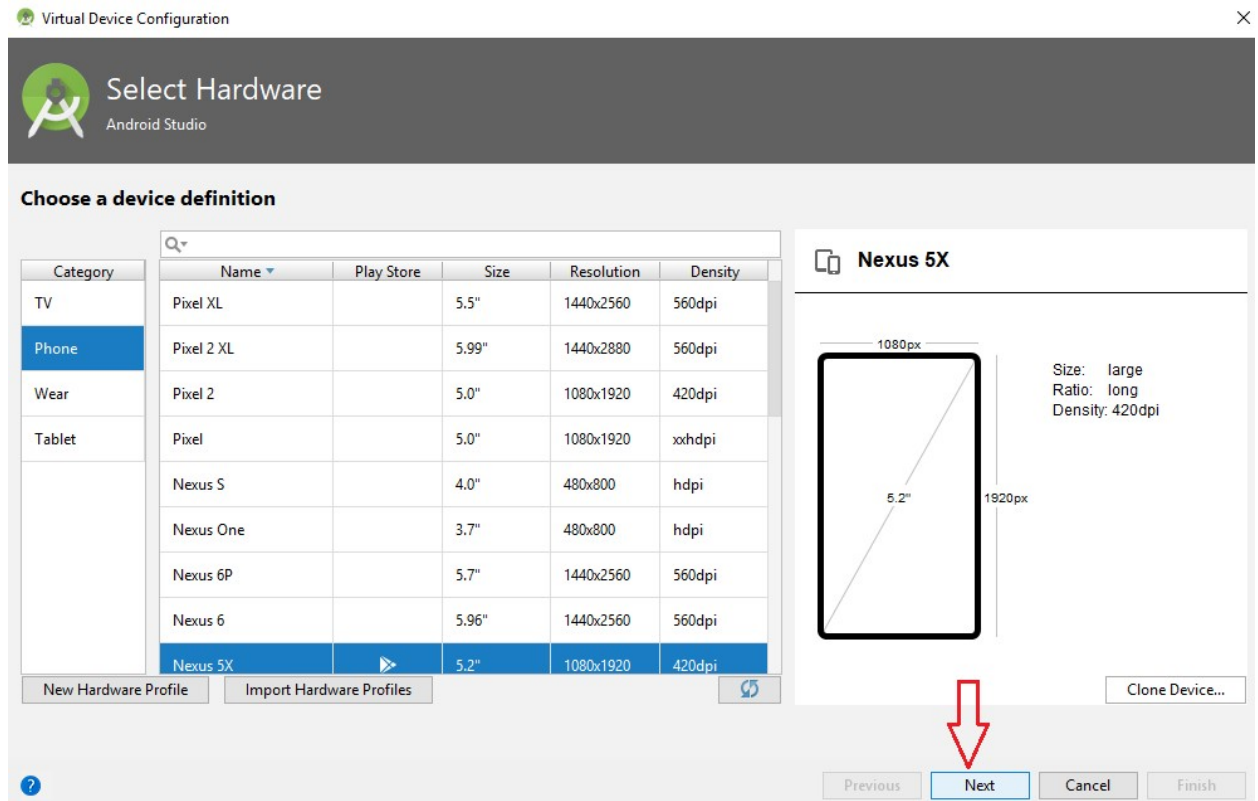
        textView.setText("Yay!! You just clicked on button");
    }
}
```

20-You need a virtual device to run the code. Bellow window will show up to chose the virtual device.

If there is no Installed VirtualDevice to choose, you can install one by clicking the“Install the new Virtual Device”



21-Click the “Next” button.




22-Download the last release version listed in table and click the "Next" button

Select a system image

Recommended x86 Images Other Images

Release Name	API Level	ABI	Target
P Download	P	x86	Android API P (Google Play)
Oreo Download	27	x86	Android 8.1 (Google Play)
Oreo Download	26	x86	Android 8.0 (Google Play)
Nougat Download	25	x86	Android 7.1.1 (Google Play)
Nougat Download	24	x86	Android 7.0 (Google Play)

P

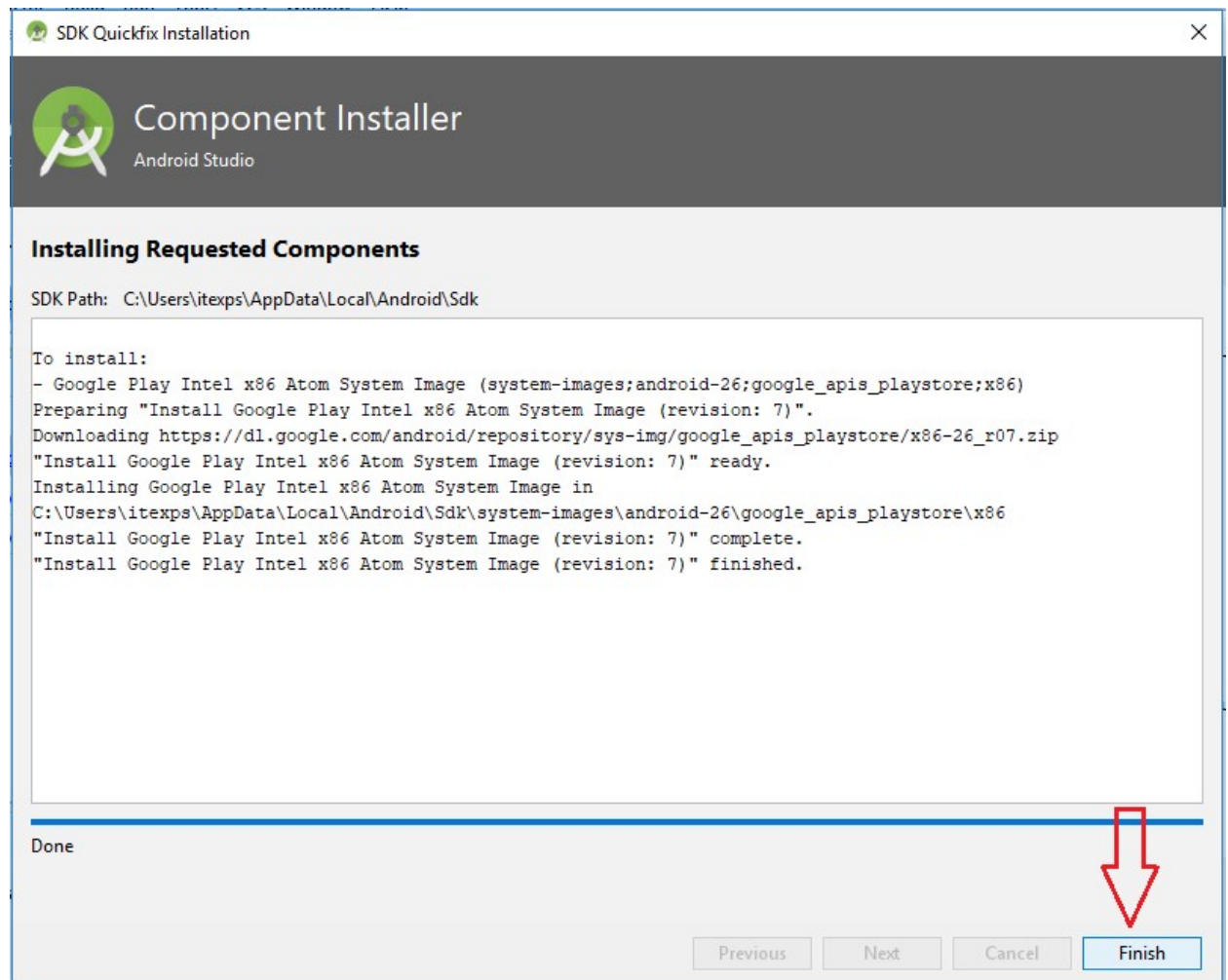
 API Level
P
Android
Google Inc.
System Image
x86

We recommend these Google Play images because this device is compatible with Google Play.

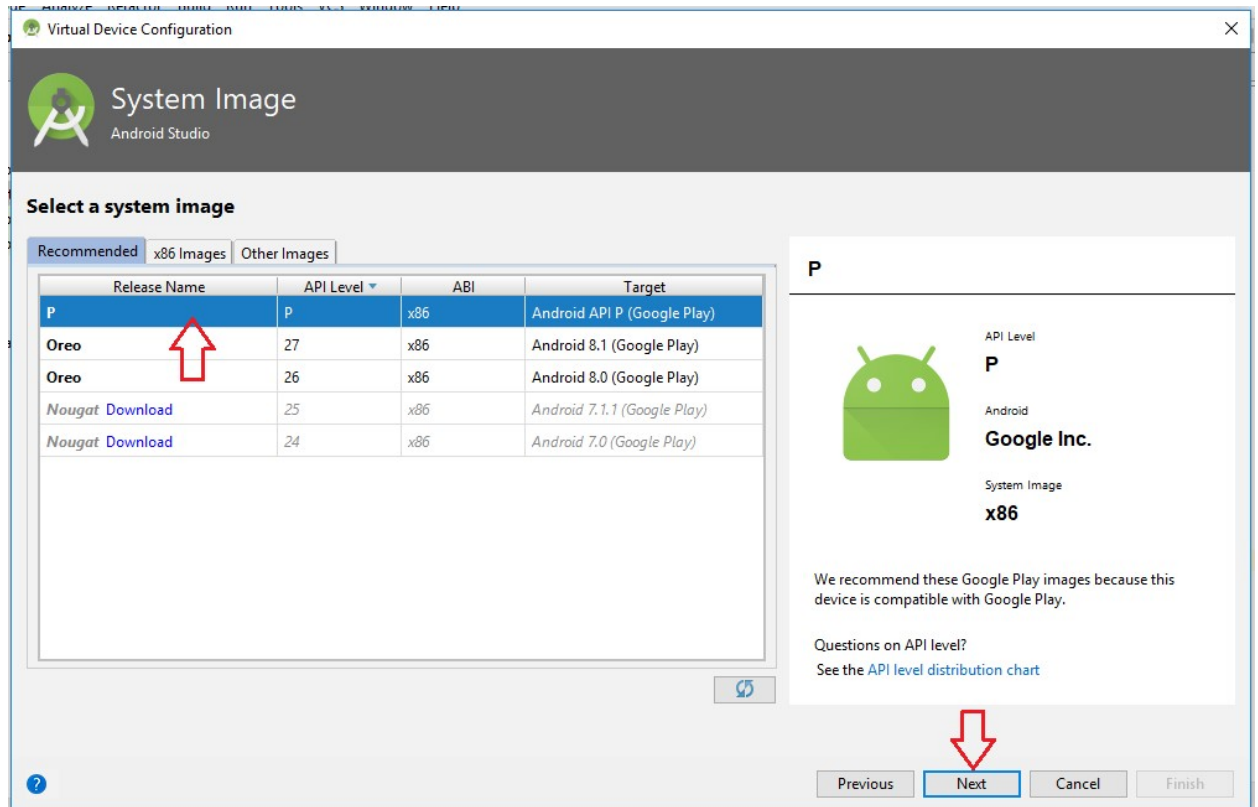
Questions on API level?
[See the API level distribution chart](#)

Previous **Next** Cancel Finish

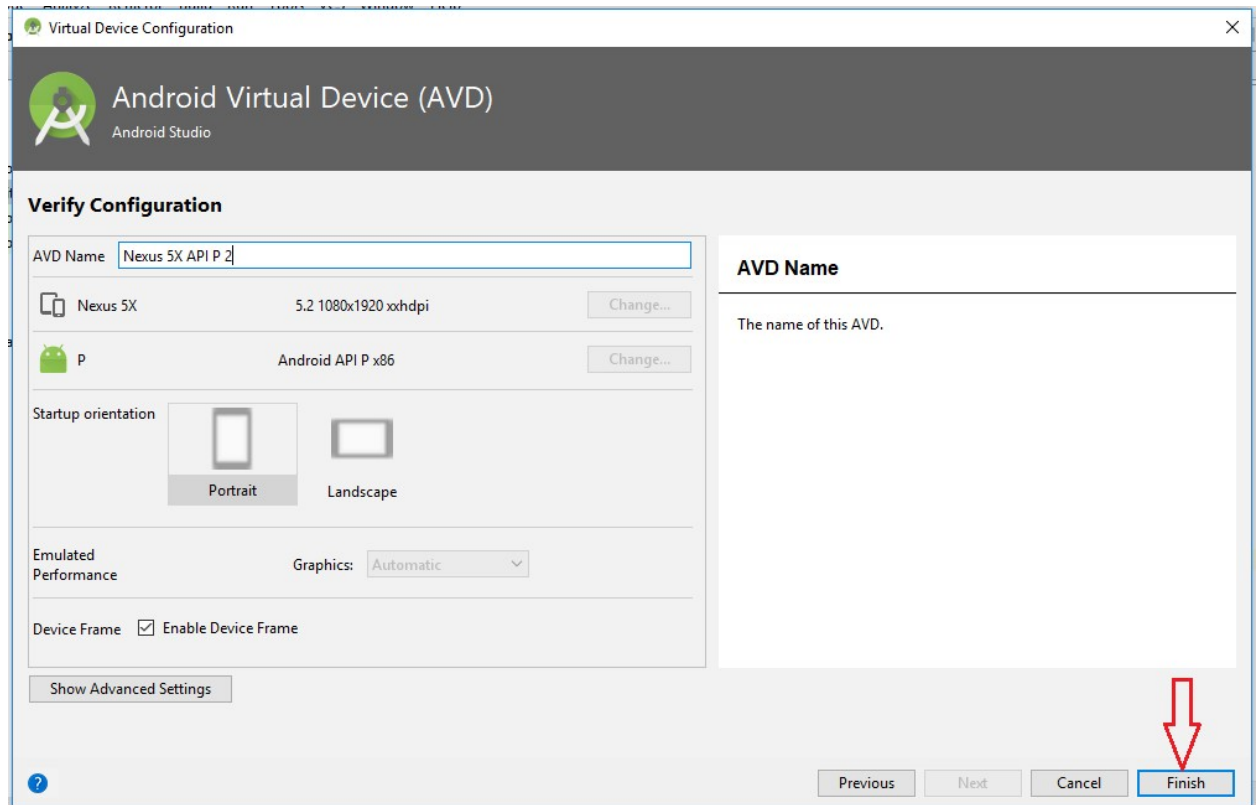
23-Click the “Finish “ Button



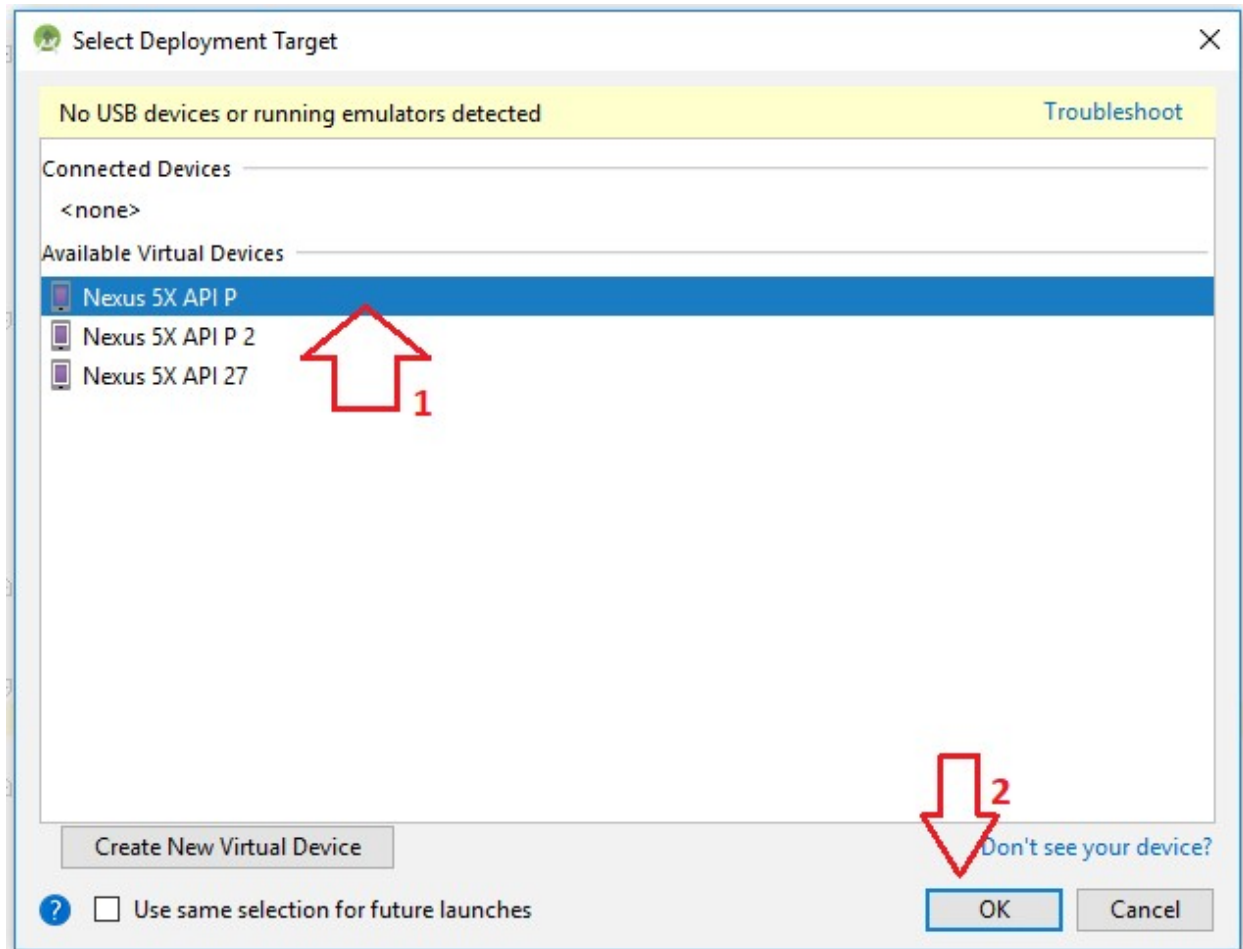
24-Select the virtual Device that you already downloaded and click the "Next" button



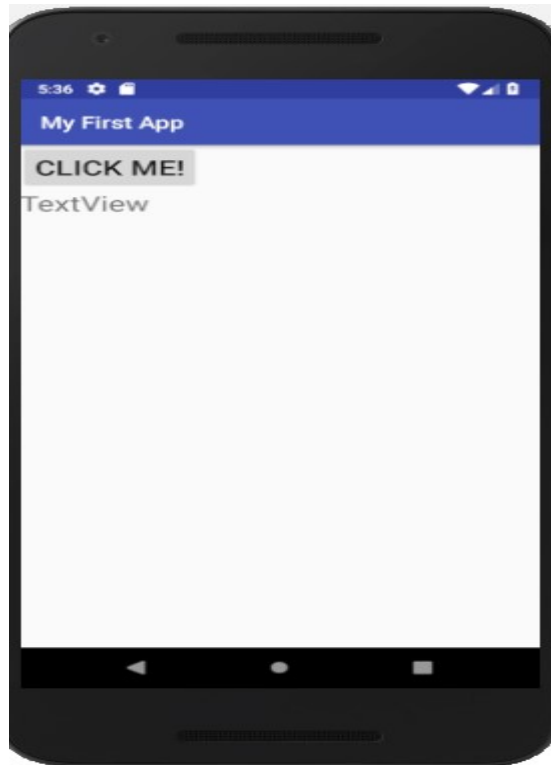
25-Click the "Finish" button.



26-In this window. You can see list of the Android Virtual Devices that you have installed. Select one of them and click the “OK” button.



22- Virtual Device will start running and you can see your first app.



27-Now click the “Click Me!” button. The text will show up.

