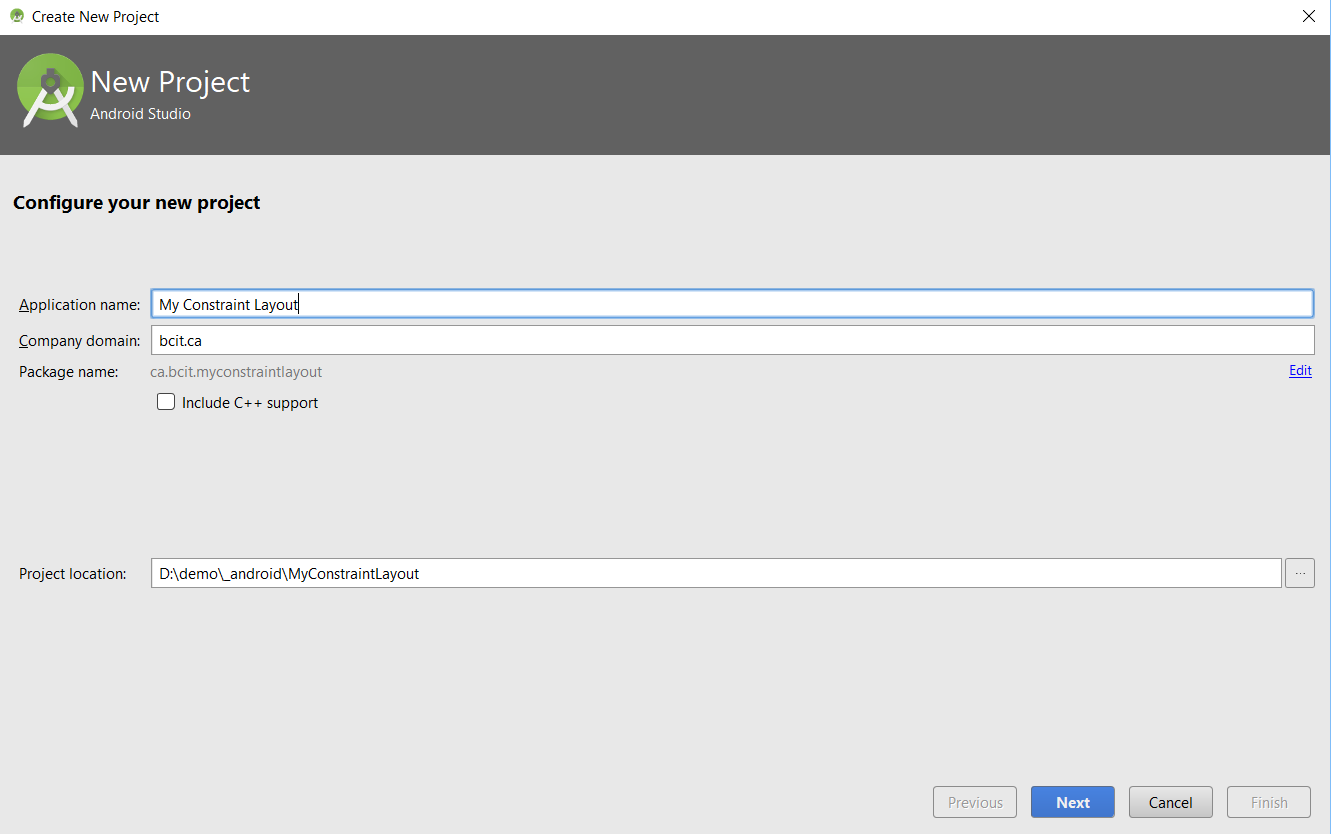
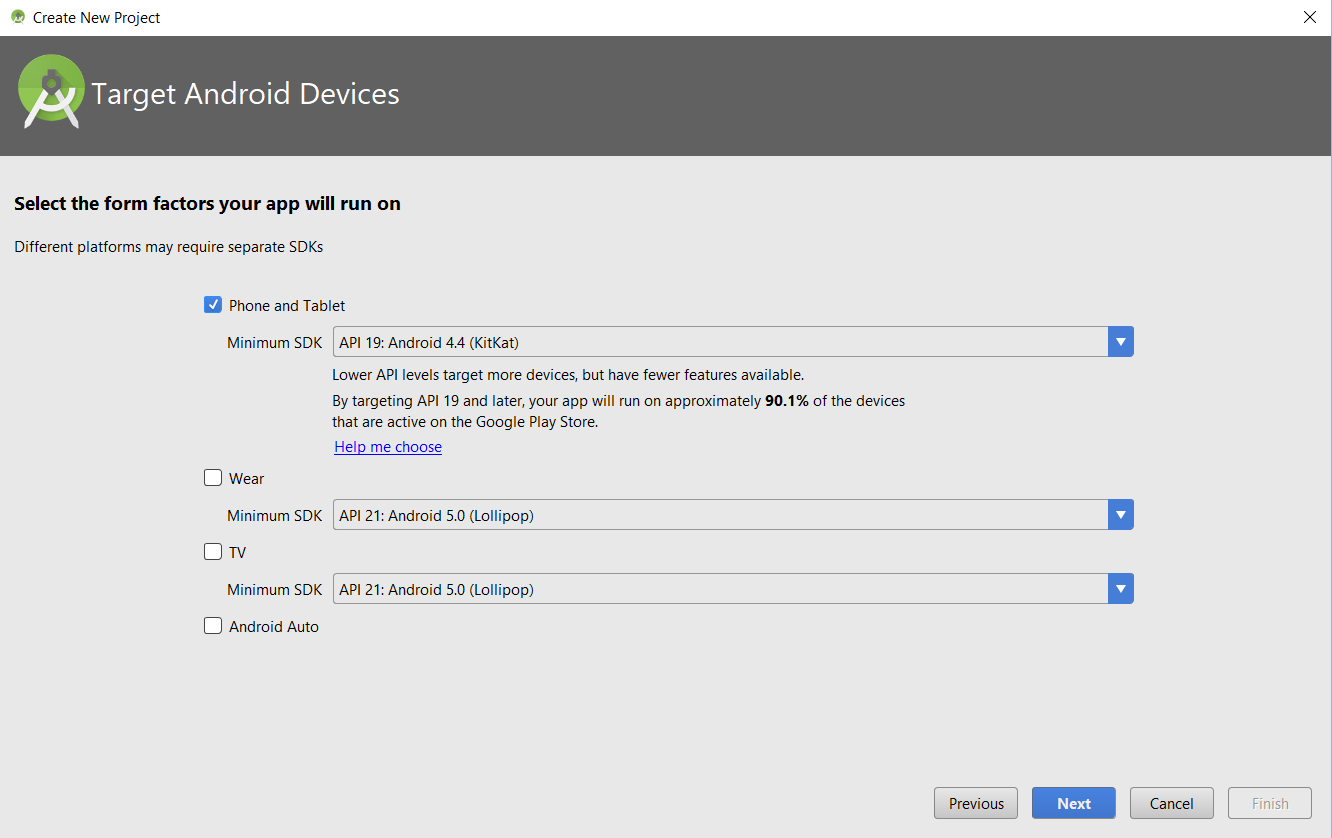
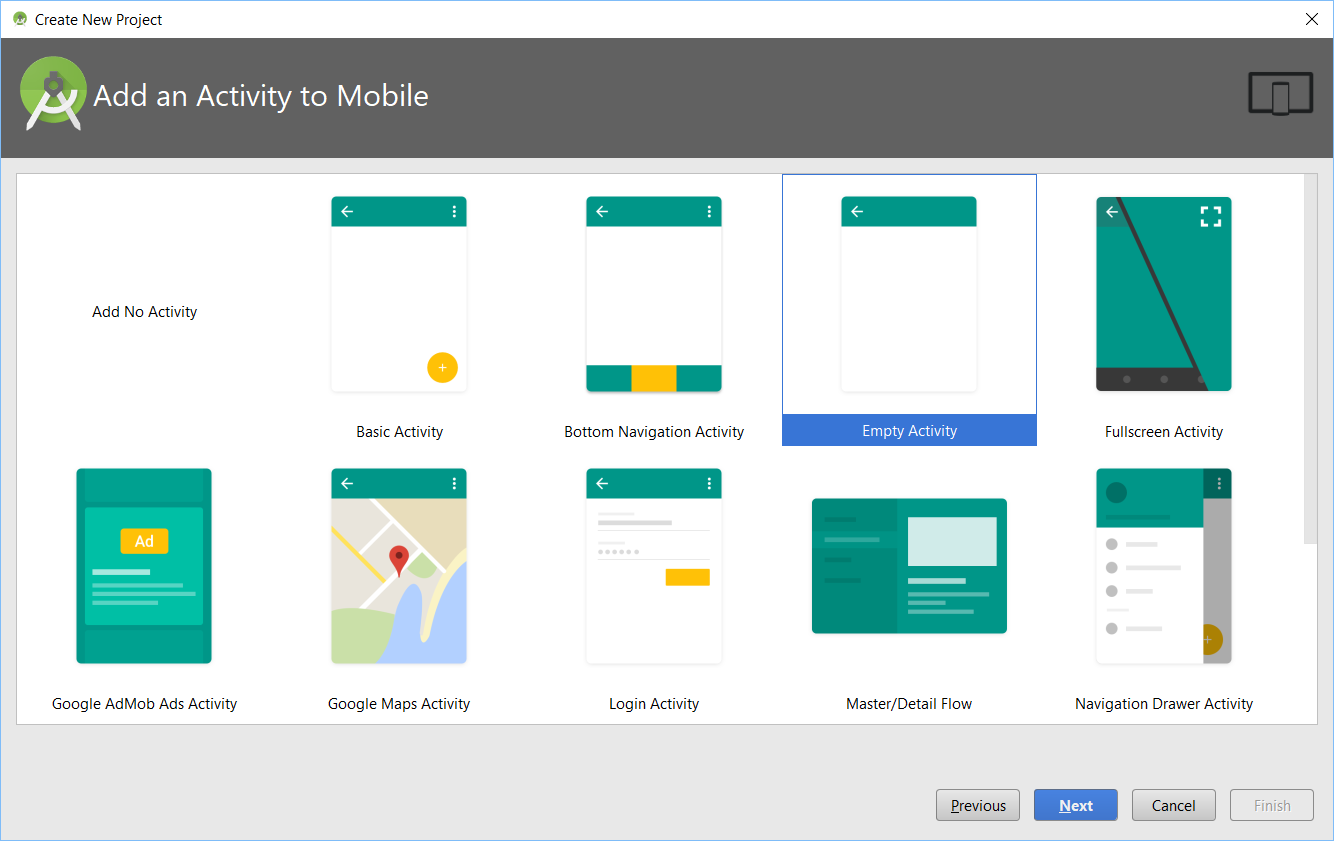
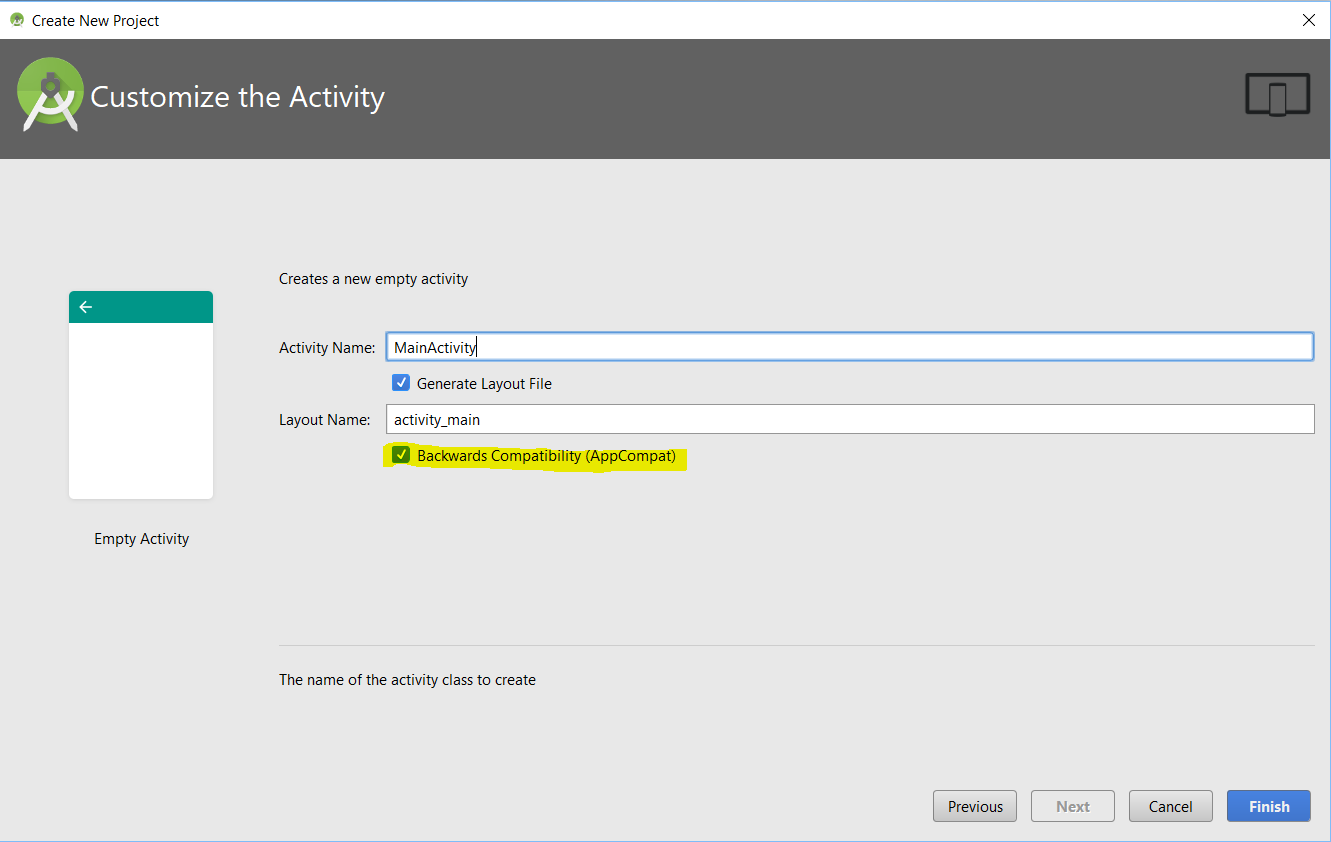
Constraint Layout

Create a new project named “My Constraint Layout”

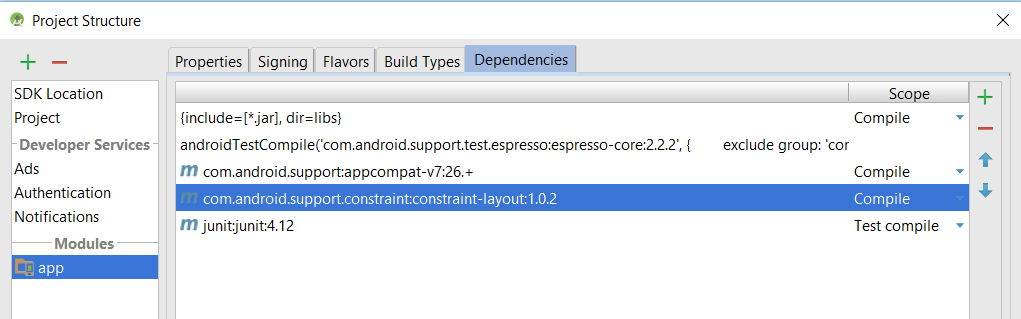








File >> Project Structure



Add these string resources:

<string name="to\_label">To:</string>

<string name="email\_hint">Enter email address</string>

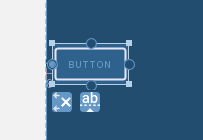
<string name="subject\_hint">Subject</string>

<string name="message\_hine">Message</string>

<string name="send\_button">Send</string>

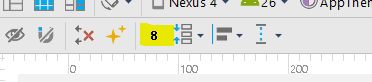
### Constraints

Switch to design view.

Click on “Blueprint” toolbar to only show blueprint view:

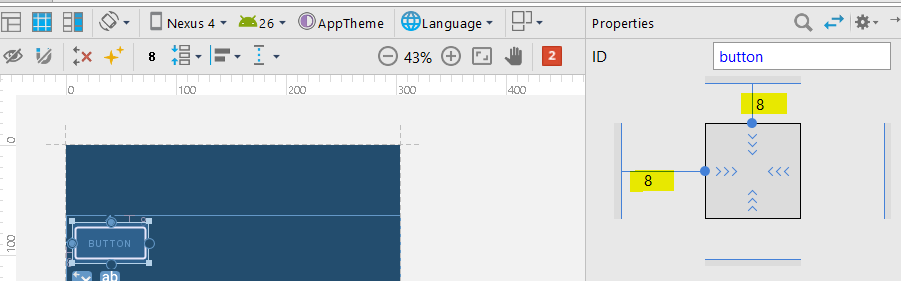
Drag a button into the design view.

Attach a left constraint to the left edge of screen.

Attach a vertical constraint to top edge of window.

Default Margin size can be changed here:

You can also change the margins here:



The button XML now looks like this:

<Button

android:id="@+id/button"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="Button"

android:layout\_marginLeft="24dp"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

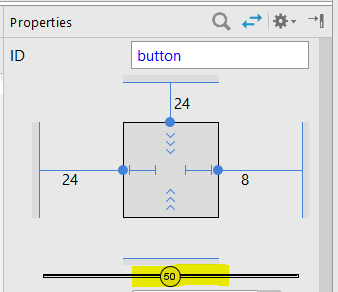
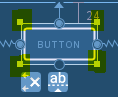
android:layout\_marginTop="24dp" />

**Center button**

Add two contraints to opposite sides of the control.

**Move button left and right**

This is done by changing the *bias*.

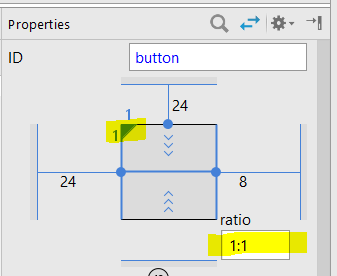


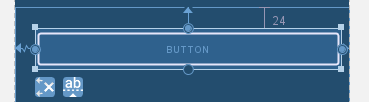
**Changing the control size:**

1. Resize control by dragging size handles
2. As big as contents:

Set layout\_width & layout\_height to be wrap\_content

1. Match the view constraints by setting width and/or height to 0dp.

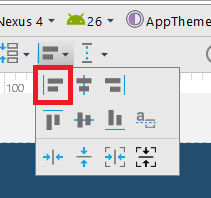
layout\_width="0dp"



1. Match the views constraints.

Change width or height to 0dp then click here. This will display the ratios input field

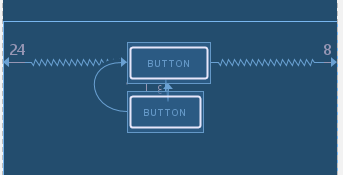
**Adding more controls**

Drag a second button to the blueprint.

Draw a constraint from top of second button to bottom of first button.

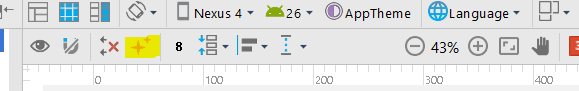
To align left edges, selct both buttons and select “Align Left Edges”

This creates a constraint from left edge of second button to left edge of first button:



Infer constraints:

Add controls in the places you want them to be then click on infer constraints. A good guess is make by the IDE and appropriate constraints are added.



Setup UI so it looks like this:

