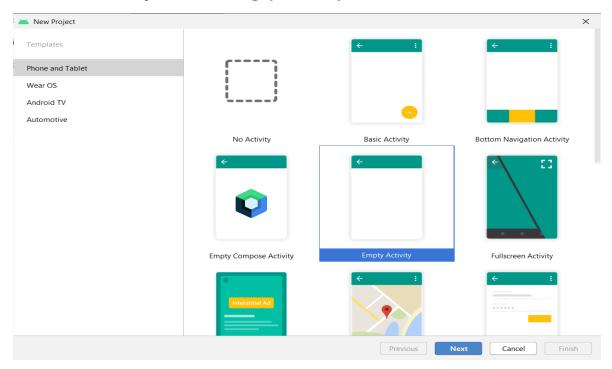
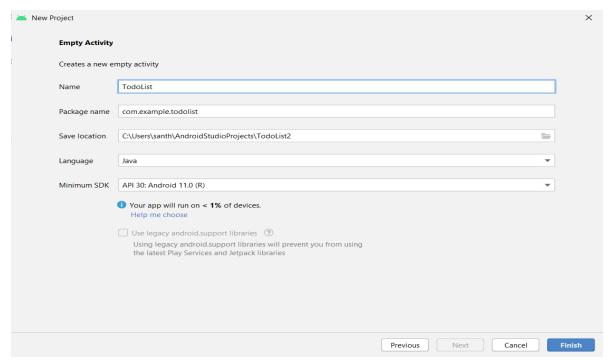
"To-DO List" App

1. Create New Project with "Empty Activity".

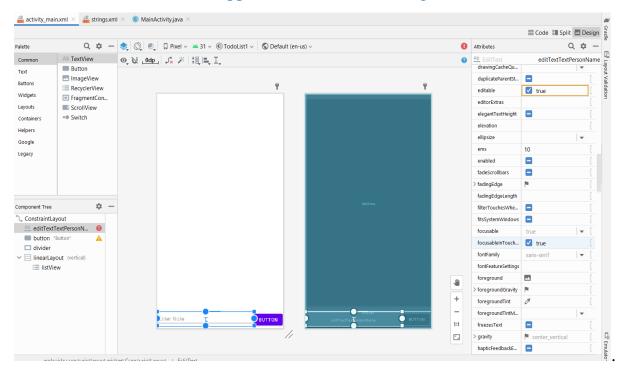


2. Enter Activity name and Click on Finish.



3.To design the attributes like Textbox's & button's etc- under "activity main.xml" follow the steps given in the link in Design Tab

Build A To-Do List App in Android Studio | Beginner's Guide



Or copy the code under activity_main.xml page in Code Tab.

activity_xml:-

```
<?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">

   <EditText
   android:layout_width="deditTextTextPersonName"
   android:layout_width="0dp"
   android:layout_height="wrap_content"</pre>
```

```
android:layout_marginBottom="7dp"
  android:editable="true"
  android:ems="10"
  android:focusableInTouchMode="true"
  android:hint="Enter Note"
  android:inputType="textPersonName"
  app:layout_constraintBottom_toBottomOf="parent"
  app:layout_constraintEnd_toStartOf="@+id/button"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop_toBottomOf="@+id/linearLayout"/>
<Button
  android:id="@+id/button"
  android:layout width="wrap content"
  android:layout_height="wrap_content"
  android:layout_marginEnd="1dp"
  android:layout_marginBottom="3dp"
  android:text="Button"
  app:layout_constraintBottom_toBottomOf="parent"
  app:layout_constraintEnd_toEndOf="parent"
  app:layout_constraintStart_toEndOf="@+id/editTextTextPersonName"
  app:layout_constraintTop_toBottomOf="@+id/linearLayout"/>
<View
  android:id="@+id/divider"
  android:layout_width="409dp"
  android:layout_height="1dp"
  android:layout_marginStart="1dp"
  android:layout_marginEnd="1dp"
  android:background="?android:attr/listDivider"
  app:layout_constraintBottom_toTopOf="@+id/button"
  app:layout_constraintEnd_toEndOf="parent"
  app:layout_constraintStart_toStartOf="parent"/>
<LinearLayout
  android:id="@+id/linearLayout"
  android:layout_width="0dp"
```

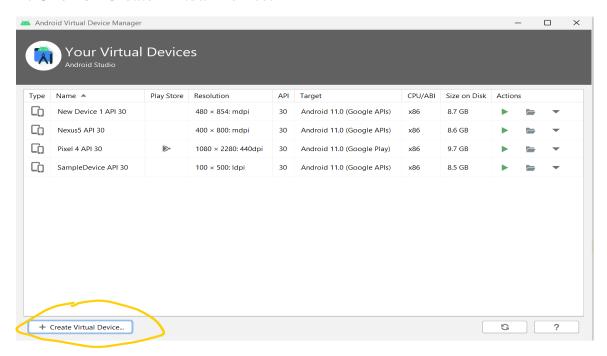
```
android:layout_height="0dp"
    android:layout_marginStart="1dp"
    android:layout_marginTop="1dp"
    android:layout_marginEnd="1dp"
    android:layout_marginBottom="2dp"
    android:orientation="vertical"
    app:layout_constraintBottom_toTopOf="@+id/button"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout constraintStart toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent">
    <ListView
      android:id="@+id/listView"
      android:layout width="match parent"
      android:layout_height="match_parent"/>
  </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
4. Write the below code under "MainActivity.java".
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.Toast;
import java.util.ArrayList;
public class MainActivity extends AppCompatActivity {
  private ArrayList<String> items;
  private ArrayAdapter<String> itemsAdapter;
```

```
private ListView listView;
  private Button button2;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    listView = findViewById(R.id.listView);
    button2 = findViewById(R.id.button);
    button2.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View view) {
         addItem(view);
    });
    items = new ArrayList<>();
    itemsAdapter = new ArrayAdapter<>(this,
android.R.layout.simple_list_item_1,items);
    listView.setAdapter(itemsAdapter);
    setUpListViewListener();
  private void setUpListViewListener(){
    listView.setOnItemLongClickListener(new
AdapterView.OnItemLongClickListener() {
       @Override
       public boolean on ItemLongClick (AdapterView<?> adapterView, View
view, int i, long 1) {
         Context context = getApplicationContext();
         Toast.makeText(context,"Item
removed",Toast.LENGTH_LONG).show();
         items.remove(i);
         itemsAdapter.notifyDataSetChanged();
         return true;
       }
    });
```

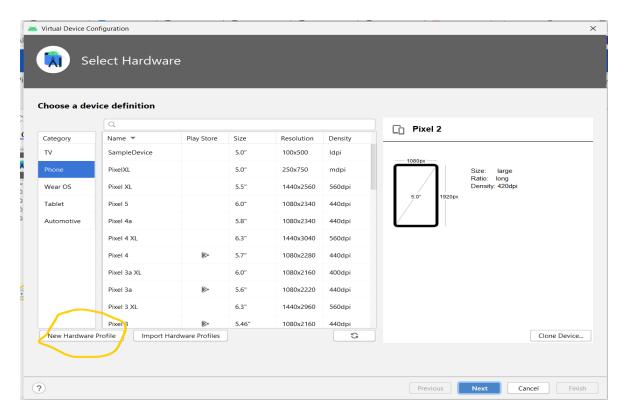
```
private void addItem(View view){
    EditText input = findViewById(R.id.editTextTextPersonName);
    String itemText = input.getText().toString();
    if(!(itemText.equals(''''))){
        itemsAdapter.add(itemText);
        input.setText('''');
    }
    else {
        Toast.makeText(getApplicationContext(),"Please enter
text",Toast.LENGTH_LONG).show();
    }
}
```

5. Create the Virtual Device with D-pad option follow below steps.

A. Click on Create Virtual Device.

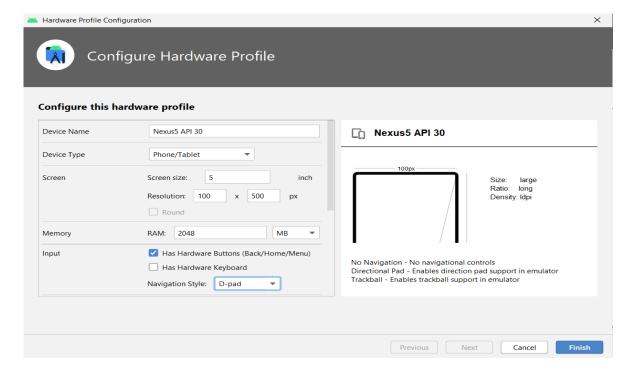


B. Click on New Hardware Profile.

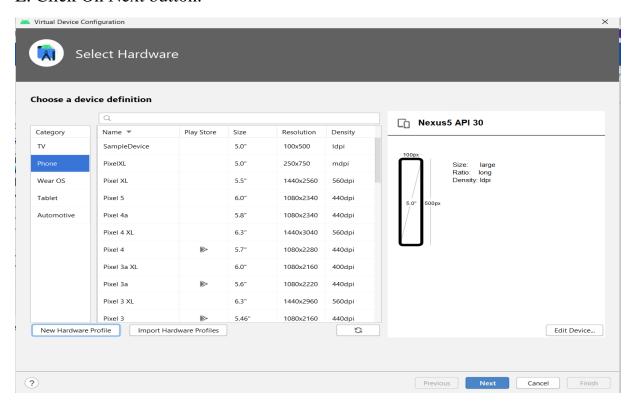


- C. Enter Device Name and select Resolution as "100 X 500".
- D .Select "Has Hardware Buttons" checkbox and Select D-pad in Navigation Style Dropbox and

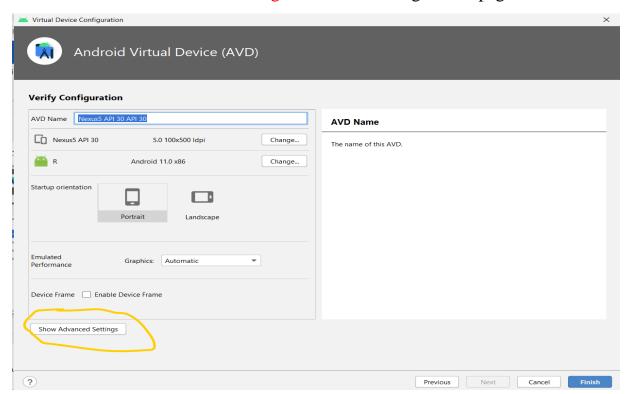
Click on Finish button.



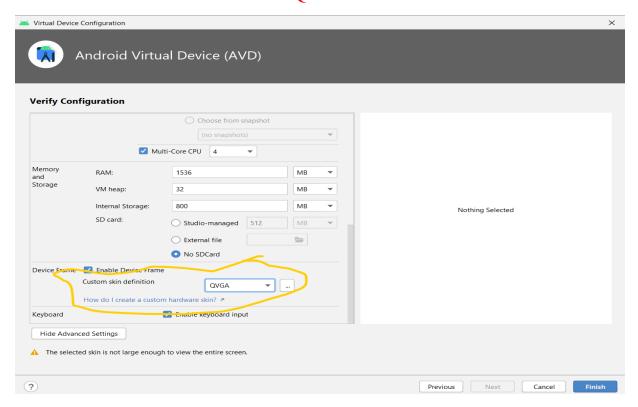
E. Click On Next button.



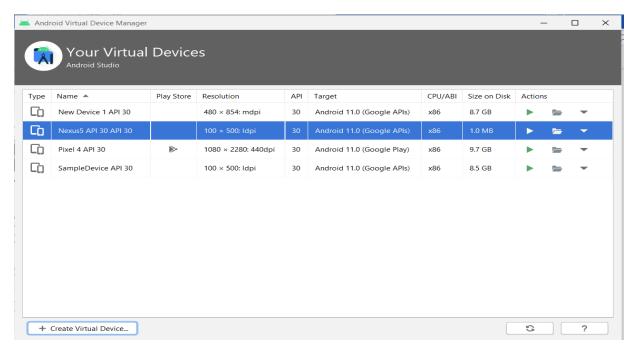
F.Click On **Show Advanced Settings** in Virtual Configuration page.



G. Select Custom skin definition as "QVGA" and Click on Finish.



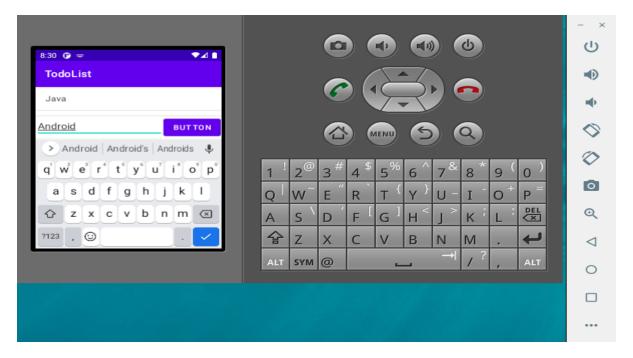
H. New Virtual Device created.



I. Select the New Virtual Device and run the application.



J. Enter the list in the textbox and click on Button.



K. Finally TodoList is created.

