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Create app in android studio that have 2 buttons. first button name as visible , when click on it display " My First Application". 2nd button name as invisible when it clicked text got disappeared from activity screen. Note: Text must be in bigger font size.

XML Code: <?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"
    android:background="@drawable/nightsky"
    tools:context=".MainActivity">
```

```
<TextView
    android:id="@+id/mfa"
    android:layout_width="321dp"
    android:layout_height="48dp"
    android:text="My First Application"
    android:textColor="#FFFFFF"
    android:textSize="34sp"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.512"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.231" />
```

```
<Button
    android:id="@+id/visbtn"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="96dp"
```

```
android:onClick="Show"
android:text="Visible"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/mfa"
app:layout_constraintVertical_bias="0.647" />
```

<Button

```
android:id="@+id/invisbtn"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginEnd="92dp"
android:onClick="Hide"
android:text="Invisible"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintTop_toBottomOf="@+id/mfa"
app:layout_constraintVertical_bias="0.647" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

JAVA Code:

```
package com.example.myapplication;
```

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

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.TextView;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    TextView textView;
```

```
    public void Show(View view) {
```

```
        textView.setVisibility(View.VISIBLE);
```

```
    }
```

```
    public void Hide(View view) {
```

```
        textView.setVisibility(View.INVISIBLE);
```

```
    }
```

```
@Override
```

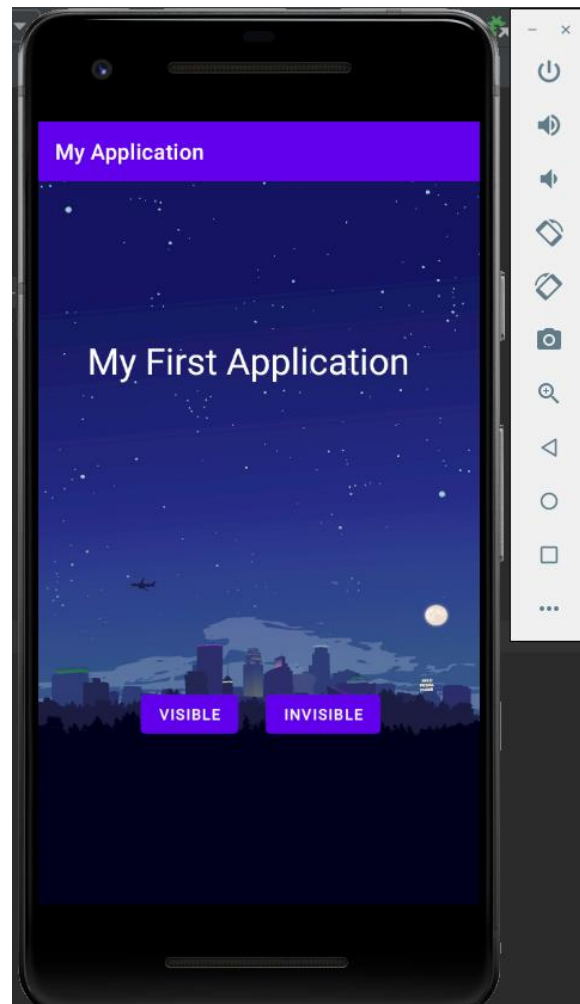
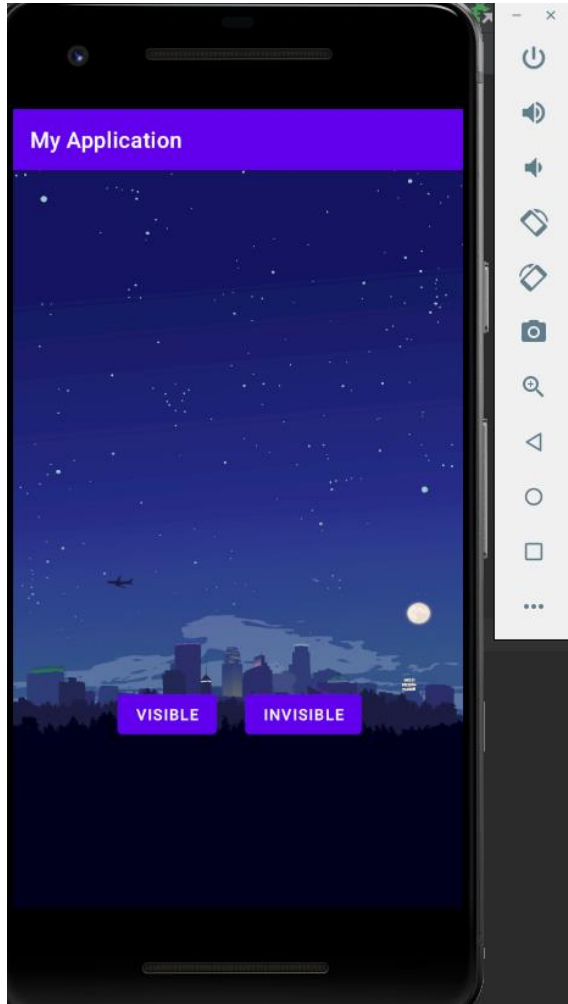
```
protected void onCreate(Bundle savedInstanceState) {
```

```
    super.onCreate(savedInstanceState);
```

```
    setContentView(R.layout.activity_main);
```

```
    textView = (TextView) findViewById(R.id.mfa);  
}  
}
```

SCREENSHOTS:



2)

Make an app in android that contain different xml layouts and return button in each layout to first layout. Hierarchy of layouts

Solution:

JAVA code:

fill_model.java

```
package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import
android.os.Bundle; import android.view.View; import
android.widget.Button; public class fill_model extends
AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_fill_model);      Button bx =
findViewById(R.id.ret);      bx.setOnClickListener(new
View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new
Intent(getApplicationContext(),MainActivity.class));
        }
    });
}
}
```

linearlayout.java

```
package com.example.chapter5;
```

```

import androidx.appcompat.app.AppCompatActivity; import
android.content.Intent; import android.os.Bundle; import android.view.View;
import android.widget.AdapterView; import android.widget.AdapterView;
import android.widget.Button; import android.widget.ListView; import
android.widget.TextView;

public class linearlayout extends AppCompatActivity {

    ListView listview = null;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_linear_layout);      Button bx =
findViewById(R.id.ret);      bx.setOnClickListener(new
View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new
Intent(getApplicationContext(),MainActivity.class));
        }
    });
    listview = findViewById(R.id.listview2);

    String[] items = {"orientation","fill model","weight",
        "gravity","padding & margin"};
    ArrayAdapter<String> adpt = new
ArrayAdapter<String>(this,R.layout.list_view,items);
    listview.setAdapter(adpt);

    listview.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
        @Override
        public void onItemClick(AdapterView<?> adapterView, View view, int i, long l){
switch(i){
            case 0:{
                startActivity(new
Intent(getApplicationContext(),ll_orientation.class));
                break;
            }
            case 1:{
                startActivity(new
Intent(getApplicationContext(),fill_model.class));
                break;
            }
        }
    }
}

```

```

        }                case 2:{
startActivity(new
Intent(getApplicationContext(),ll_weight.class));
        break;        }
case 3:{
        startActivity(new
Intent(getApplicationContext(),ll_gravity.class));
        break;

        }                case 4:{

        startActivity(new
Intent(getApplicationContext(),padding.class));
        break;

        }

        }

    }
});

}
}

```

ll_gravity.java

```

package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import
android.os.Bundle; import android.view.View; import
android.widget.Button;

public class ll_gravity extends AppCompatActivity {

    @Override

```

```

protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_ll_gravity);    Button bx =
findViewById(R.id.ret);    bx.setOnClickListener(new
View.OnClickListener() {
    @Override
    public void onClick(View view) {
        startActivity(new
Intent(getApplicationContext(),MainActivity.class));
    }
});
}
}

```

ll_orientation.java

```

package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import android.os.Bundle;
import android.view.View; import
android.widget.AdapterView; import
android.widget.AdapterView; import
android.widget.ArrayAdapter; import
android.widget.Button; import
android.widget.LinearLayout; import
android.widget.ListView; import
android.widget.TextView; public class ll_orientation
extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_ll_orientation);    Button bx =
findViewById(R.id.ret);

```

```

    bx.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new
Intent(getApplicationContext(),MainActivity.class));
        }
    });
    ListView listView = findViewById(R.id.listview3);
    TextView textView = findViewById(R.id.textView3);    String[] items =
{"horizontal","vertical"};

    listView.setAdapter(new
ArrayAdapter<String>(this,R.layout.list_view,items));
    listView.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
    @Override
    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
        Intent intent = new
Intent(getApplicationContext(),orientation.class);
        switch(i){
            case 0:{
                intent.putExtra("orientation",0);
startActivity(intent);
                break;
            }
            case 1:{
                intent.putExtra("orientation",1);
startActivity(intent);
                break;
            }
        }
    }
});
}
}

```

ll_weight.java

```
package com.example.chapter5;
```

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



```
import android.content.Intent; import
android.os.Bundle; import android.view.View; import
android.widget.Button;

public class ll_weight extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);

setContentView(R.layout.activity_ll_weight);      Button bx =
findViewById(R.id.ret);      bx.setOnClickListener(new
View.OnClickListener() {

        @Override
        public void onClick(View view) {
            startActivity(new
Intent(getApplicationContext(),MainActivity.class));
        }
    });
}

}
```

MainActivity.java

```
package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import android.os.Bundle;
import android.view.View; import
android.widget.AdapterView; import
android.widget.ArrayAdapter; import
android.widget.ListView; import
android.widget.TextView;

public class MainActivity extends AppCompatActivity {
```

```

ListView listview = null;
TextView textView = null;
Intent intent = null;
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);

listview = findViewById(R.id.listview1);
String[] items = {"Linear Layout","RelativeLayout",
    "TableLayout","ScrollView"};
ArrayAdapter<String> adpt = new ArrayAdapter<String>(this,
R.layout.list_view,items);    listview.setAdapter(adpt);
listview.setOnItemClickListener(new AdapterView.OnItemClickListener()
{
    @Override
    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {
switch(i){
    case 0:{
        intent = new Intent(getApplicationContext(), linearlayout.class);
        startActivity(intent);
        break;
    }
    case 1:{
startActivity(new
Intent(getApplicationContext(),relativelayout.class));
        break;
    }
    case 2:{
        startActivity(new
Intent(getApplicationContext(),tablelayout.class));
        break;
    }
    case 3:{
        startActivity(new
Intent(getApplicationContext(),scrollviewlayout.class));
        break;
    }
    case 4:{

    }
    }
}
}
}

```

```
});
```

```
}  
}
```

orientation.java

```
package com.example.chapter5;
```

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

```
import android.content.Intent; import android.os.Bundle;
```

```
import android.view.View; import android.widget.Button;
```

```
import android.widget.LinearLayout; import
```

```
android.widget.TextView;
```

```
public class orientation extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_orientation);
```

```
        Bundle b = getIntent().getExtras();
```

```
        LinearLayout temp = findViewById(R.id.orientation);        if(b!=null){
```

```
            if(b.getInt("orientation")==1){
```

```
                temp.setOrientation(LinearLayout.VERTICAL);
```

```
            }else if(b.getInt("orientation")==0){
```

```
                temp.setOrientation(LinearLayout.HORIZONTAL);
```

```
            }
```

```
        }
```

```
        Button bx = findViewById(R.id.ret);
```

```
        bx.setOnClickListener(new View.OnClickListener() {
```

```
            @Override
```

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

```
                startActivity(new
```

```
                Intent(getApplicationContext(),MainActivity.class));
```

```
    }  
});
```

```
    }  
}
```

padding.java

```
package com.example.chapter5;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent; import  
android.os.Bundle; import android.view.View; import  
android.widget.Button;  
  
public class padding extends AppCompatActivity {  
  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
super.onCreate(savedInstanceState);  
setContentView(R.layout.activity_padding);          Button bx =  
findViewById(R.id.ret);    bx.setOnClickListener(new View.OnClickListener()  
{  
    @Override  
    public void onClick(View view) {  
        startActivity(new  
Intent(getApplicationContext(),MainActivity.class));  
    }  
});  
    }  
}
```

relativelayout.java

```
package com.example.chapter5;
```

```

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import
android.os.Bundle; import android.view.View; import
android.widget.Button;

public class relativelayout extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);        setContentView(R.layout.activity_relativelayout);
Button bx = findViewById(R.id.ret);    bx.setOnClickListener(new View.OnClickListener()
{
    @Override
    public void onClick(View view) {
        startActivity(new
Intent(getApplicationContext(),MainActivity.class));
    }
});
    }
}

```

scrollviewlayout.java

```

package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import
android.os.Bundle; import android.view.View; import
android.widget.Button;

public class scrollviewlayout extends AppCompatActivity {

    @Override

```

```

protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_scrollviewlayout);    Button bx =
findViewById(R.id.ret);

    bx.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new
Intent(getApplicationContext(),MainActivity.class));
        }
    });
}
}

```

tablelayout.java

```

package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import
android.os.Bundle; import android.view.View; import
android.widget.Button;

public class tablelayout extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_tablelayout);    Button bx =
findViewById(R.id.ret);    bx.setOnClickListener(new
View.OnClickListener() {
        @Override
        public void onClick(View view) {
            startActivity(new
Intent(getApplicationContext(),MainActivity.class));
        }
    }
}

```

```
});  
}  
}
```

XML code:

activity_fill_model.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout  
  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"    android:orientation="vertical"  
  android:background="#ff0033cc"    tools:context=".fill_model">  
  
  <TextView  
    android:id="@+id/labelUserName"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"    android:background="#ffff0066"  
    android:text="User Name" android:textSize="16sp" android:textStyle="bold"  
    android:textColor="#ff000000"  
  />  
  
  <EditText  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"    android:textSize="18sp"  
  />  
  
  <Button    android:id="@+id/btnGo"  
    android:layout_width="125dip"  
    android:layout_height="wrap_content"    android:text="Go"  
    android:textStyle="bold"  
  />
```

```
<Button      android:id="@+id/ret"
android:layout_width="wrap_content"
android:layout_height="wrap_content"      android:text="Return"
/>
```

```
</LinearLayout>
```

activity_linear_layout.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"
android:orientation="vertical"      tools:context=".linearlayout">
```

```
    <TextView
        android:id="@+id/textView"      android:layout_width="match_parent"
android:layout_height="wrap_content" android:text="Linear Layout"
android:gravity="center"
        android:layout_marginTop="10dp"
    />
```

```
    <ListView
        android:id="@+id/listview2"      android:layout_width="match_parent"
android:layout_height="wrap_content"      android:gravity="center"
android:layout_marginTop="50dp"
    />
```

```
    <Button      android:id="@+id/ret"
android:layout_width="wrap_content"
android:layout_height="wrap_content"      android:text="Return"
    />
```

```
</LinearLayout>
```


activity_ll_gravity.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"
android:orientation="vertical"    tools:context=".ll_gravity">
    <TextView
        android:id="@+id/labelUserName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"    android:background="#ffff0066"
        android:text="User Name"    android:textSize="16sp"
        android:textStyle="bold"    android:textColor="#ff000000"
        android:gravity="center"
    />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content" android:textSize="18sp"
    />

    <Button    android:id="@+id/btnGo"
        android:layout_width="125dip"
        android:layout_height="wrap_content"    android:text="Go"
        android:textStyle="bold"    android:layout_gravity="right"
    />
    <Button    android:id="@+id/ret"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"    android:text="Return"
    />
```

</LinearLayout>

activity_ll_orientation.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout
```

```
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:id="@+id/ll_orientation"
```

```
android:layout_width="match_parent"    android:layout_height="match_parent"
```

```
android:orientation="vertical"    tools:context=".ll_orientation">
```

```
    <TextView
```

```
        android:id="@+id/textView3"
```

```
android:layout_width="match_parent"
```

```
android:layout_height="wrap_content"    android:text="Vertical"
```

```
android:gravity="center"    android:layout_marginTop="10dp"
```

```
    />
```

```
    <ListView
```

```
        android:id="@+id/listview3"    android:layout_width="match_parent"
```

```
android:layout_height="wrap_content" android:gravity="center"
```

```
android:layout_marginTop="50dp"
```

```
    />    <Button
```

```
        android:id="@+id/ret"
```

```
        android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"    android:text="Return"
```

```
    />
```

```
</LinearLayout>
```

activity_ll_weight.xml

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<LinearLayout
```

```
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"
android:orientation="vertical"    tools:context=".ll_weight">
    <TextView
        android:id="@+id/labelUserName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"    android:background="#ffff0066"
        android:text="User Name"    android:textSize="16sp"
        android:textStyle="bold"    android:textColor="#ff000000"
        android:layout_weight="1"

    />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"    android:textSize="18sp"
        android:layout_weight="2"

    />

    <Button    android:id="@+id/btnGo"
        android:layout_width="125dip"
        android:layout_height="wrap_content" android:text="Go"
        android:textStyle="bold"    android:layout_weight="1"

    />
    <Button
        android:id="@+id/ret"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"    android:text="Return"

    />
</LinearLayout>
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"    android:orientation="vertical"
tools:context=".MainActivity">

    <ListView
        android:id="@+id/listview1"    android:layout_width="match_parent"
android:layout_height="wrap_content"    android:gravity="center"
        />

</LinearLayout>
```

activity_orientation.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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:id="@+id/orientation"
android:layout_width="match_parent"
    android:layout_height="match_parent"    android:orientation="horizontal"
android:background="#ff0033cc"    tools:context=".orientation">

    <TextView
        android:id="@+id/labelUserName"
android:layout_width="wrap_content"
android:layout_height="wrap_content"    android:background="#ffff0066"
```

```

android:text="User Name"      android:textSize="16sp"
android:textStyle="bold"      android:textColor="#ff000000"

/>

<EditText
    android:id="@+id/ediName" android:layout_width="wrap_content"
    android:layout_height="wrap_content" android:textSize="18sp"
/>

<Button      android:id="@+id/btnGo"
android:layout_width="wrap_content"
android:layout_height="wrap_content"      android:text="Go"
android:textStyle="bold"

/>
<Button
    android:id="@+id/ret"
    android:layout_width="wrap_content"
android:layout_height="wrap_content"      android:text="Return"

/>
</LinearLayout>

```

activity_padding.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"
    android:orientation="vertical"    tools:context=".padding">
    <TextView
        android:id="@+id/labelUserName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"      android:background="#ffff0066"

```

```

        android:text="User Name"        android:textSize="16sp"
        android:textStyle="bold"        android:textColor="#ff000000"

    />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content" android:textSize="18sp"
        android:padding="50dp" android:layout_margin="50dp"
    />

    <Button        android:id="@+id/btnGo"
        android:layout_width="125dip"
        android:layout_height="wrap_content"        android:text="Go"
        android:textStyle="bold"
    />
    <Button
        android:id="@+id/ret"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"        android:text="Return"
    />

</LinearLayout>

```

activity_relativelayout.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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:id="@+id/r11"
        android:layout_width="match_parent"
        android:layout_height="match_parent"    tools:context=".relativelayout">
    <TextView

```

```
        android:id="@+id/lblUserName"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"        android:background="#ffff0066"
        android:text="User Name"        android:textStyle="bold"
        android:textColor="#ff000000"        android:layout_alignParentTop="true"
        android:layout_alignParentLeft="true">
```

```
</TextView>    <EditText
        android:id="@+id/ediUserName" android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/lblUserName"
        android:layout_alignParentLeft="true" android:padding="20dip"
        android:layout_alignTop="@+id/r11" tools:ignore="NotSibling" />
```

```
<Button
        android:id="@+id/btnGo"        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/ediUserName"
        android:layout_alignRight="@+id/ediUserName"        android:text="Go"
        android:textStyle="bold">
```

```
</Button>    <Button
        android:id="@+id/btnCancel"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_toLeftOf="@+id/btnGo"
        android:layout_below="@+id/ediUserName"        android:text="Cancel"
        android:textStyle="bold">
```

```
</Button>    <Button
        android:id="@+id/ret"        android:layout_width="wrap_content"
        android:layout_height="wrap_content" android:text="Return"
        android:layout_alignLeft="@+id/ediUserName"
        android:layout_below="@+id/ediUserName"
        />
```

```
</RelativeLayout>
```

activity_scrollviewlayout.xml

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView
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"    android:background="#ff009999"
tools:context=".scrollviewlayout">
    <LinearLayout
        android:id="@+id/myLinearLayoutVertical"
        android:layout_width="match_parent" android:layout_height="match_parent"
        android:orientation="vertical"
        >
        <LinearLayout
            android:id="@+id/myLinearLayoutHorizontal1"
            android:layout_width="match_parent"
            android:layout_height="match_parent"            android:orientation="horizontal"
            >
            <ImageView
                android:id="@+id/myPicture"            android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:src="@drawable/ic_launcher_background" />
            <TextView
                android:id="@+id/textView1"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"            android:text="Line1"
                android:textSize="70dip" />
            </LinearLayout>
            <View
                android:layout_width="match_parent"
                android:layout_height="6dip"            android:background="#ffccffcc" />
            <TextView
```



```
        android:id="@+id/textView2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"            android:text="Line2"
    android:textSize="70dip" />

    <View
        android:layout_width="match_parent"
    android:layout_height="6dip"            android:background="#ffccffcc" />

    <TextView
        android:id="@+id/textView3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"            android:text="Line3"
    android:textSize="70dip" />

    <View
        android:layout_width="match_parent"
    android:layout_height="6dip"            android:background="#ffccffcc" />

    <TextView
        android:id="@+id/textView4"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"            android:text="Line4"
    android:textSize="70dip" />

    <View
        android:layout_width="match_parent"
    android:layout_height="6dip"            android:background="#ffccffcc" />

    <TextView
        android:id="@+id/textView5"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"            android:text="Line5"
    android:textSize="70dip" />

    <Button        android:id="@+id/ret"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"            android:text="Return"

    />
</LinearLayout>
```

</ScrollView>

activity_tablelayout.xml

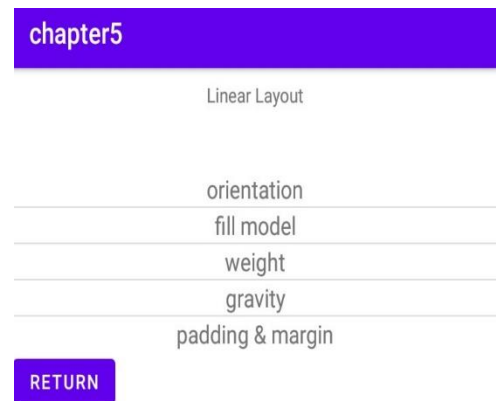
```
<?xml version="1.0" encoding="utf-8"?>
<TableLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"    android:layout_height="match_parent"
android:orientation="vertical"    android:stretchColumns ="2,3,4"
tools:context=".tablelayout">
    <TableRow>        <TextView
        android:text="URL:" />
        <EditText android:id="@+id/ediUrl"            android:layout_span="3"/>
    </TableRow>    <View
        android:layout_height="3dip"            android:background="#0000FF" />
    <TableRow>
        <Button android:id="@+id/cancel"            android:layout_column="2"
android:text="Cancel" />        <Button android:id="@+id/ok"
android:text="OK" />
    </TableRow>    <View
        android:layout_height="3dip"            android:background="#0000FF" />
    <TableRow>
        <Button            android:id="@+id/ret"
android:layout_width="wrap_content"
android:layout_height="wrap_content"            android:text="Return"
        />
    </TableRow>
</TableLayout>
```

list_view.xml

```
<?xml version="1.0" encoding="utf-8"?> <TextView
xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"    android:layout_height="match_parent"
android:gravity="center"    android:orientation="vertical"    android:textSize="20dp"
>
```

</TextView>

SCREENSHOTS:



chapter5

User Name

|

RETURN

CANCEL

GO

URL:

CANCEL

OK

RETURN



3:50

chapter5

Line1

Line2

Line3

Line4

Line5

RETURN

3) Run all codes selection widgets of the given pdf file

Java classes:

ACTV.java

```
package com.example.chapter6;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle; import
android.text.Editable; import
android.text.TextWatcher; import
android.widget.AdapterView; import
android.widget.AdapterView; import
android.widget.ArrayAdapter; import
android.widget.AutoCompleteTextView;
import android.widget.TextView;

public class ACTV extends AppCompatActivity implements TextWatcher {

    AutoCompleteTextView _var1;
    TextView textView;
    String[] items= { "this", "is", "a",
        "really", "really2", "really3",
        "really4", "really5", "silly", "list"};
    @Override    protected void onCreate(Bundle
savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity_actv);    _var1
= findViewById(R.id.edit);    textView =
findViewById(R.id.txt2);

ArrayAdapter<String> adp = new
ArrayAdapter<String>(this,R.layout.textview,items)
;

    _var1.setAdapter(adp);
```



```

import org.w3c.dom.Text;

import java.util.ArrayList;
import java.util.Arrays;
import java.util.List;

public class customlists extends AppCompatActivity {
    private TextView txt5;

    ListView lv;    @Override    protected void
    onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_customlists);
        txt5 = findViewById(R.id.txt5);        lv =
        findViewById(R.id.list2);

        String[] items= { "this", "is", "a", "really", "really2",
            "really3", "really4", "really5", "silly", "list"};
        //List<String> al = Arrays.asList(items);

        lv.setAdapter(new IconicAdapter(this,items));
    }
}

class IconicAdapter extends ArrayAdapter{

    Activity context;
    String[] items;
    IconicAdapter(Activity context,String[]
items) {        super(context,
R.layout.customrow, items);

    this.context = context;        this.items = new
String[items.length];        this.items = items;

    }

    public View getView(int position, View convertView, ViewGroup parent) {
        LayoutInflater inflater = context.getLayoutInflater();
        View c_row = inflater.inflate(R.layout.customrow,null);

        TextView t = c_row.findViewById(R.id.txt6);

```

```

        t.setText(items[position]);
    }
    return c_row;
    //ImageView i = c_row.findViewById(R.id.icon);
}
}

```

gallary.java

```

package com.example.chapter6;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Context; import
android.os.Bundle; import
android.view.View; import
android.view.ViewGroup; import
android.widget.AdapterView; import
android.widget.BaseAdapter; import
android.widget.Gallery; import
android.widget.TextView; import
android.widget.ImageView; public class
gallary extends AppCompatActivity{

    TextView txt3;
    Gallery gllry;    @Override    protected void
onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_gallary);    txt3 =
findViewById(R.id.txt3);    gllry =
findViewById(R.id.myGallery);    int[] img_ids = {
R.drawable.image1, R.drawable.image2,
        R.drawable.image3, R.drawable.image4,R.drawable.image1, R.drawable.image2,
        R.drawable.image3, R.drawable.image4,R.drawable.image1,
R.drawable.image2,        R.drawable.image3, R.drawable.image4 };
}
}

```

```

gllry.setAdapter(new ImageAdapter(this,img_ids,12));
gllry.setOnItemClickListener(new AdapterView.OnItemClickListener() {

    @Override
    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l)
    {
        txt3.setText(" selected option: " + i );
    }

    @Override
    public void onNothingSelected(AdapterView<?> adapterView) {

    }

});

}

}

```

```

class ImageAdapter extends BaseAdapter{

    private Context myContext;
    // Put some images to project-folder: /res/drawable/
    // format: jpg, gif, png, bmp, ...

    private int[] myImageIds;

    /** Simple Constructor saving the 'parent' context. */
    public ImageAdapter(Context c) {
        myImageIds = new
        int[]{ R.drawable.image1, R.drawable.image2,
        R.drawable.image3, R.drawable.image4 };
        this.myContext
        = c;
    }
    public ImageAdapter(Context c,int[] img_ids, int count)
    {
        this.myContext = c;
        myImageIds = new int[count];
        for(int
        k=0;k<count;k++){myImageIds[k] =
        img_ids[k];}
    }

    // inherited abstract methods - must be implemented
    // Returns count of images, and individual IDs

```

```

        @Override    public int
getCount() {        return
this.myImageIds.length;
    }

    @Override    public
Object getItem(int i) {
        return i;
    }

    @Override    public long
getItemId(int i) {
        return i;
    }

    @Override    public View getView(int i, View view,
ViewGroup viewGroup) {
        // Get a View to display image data
        ImageView iv = new
        ImageView(this.myContext);
        iv.setImageResource(this.myImageIds[i]);    //
        Image should be scaled somehow
        //iv.setScaleType(ImageView.ScaleType.CENTER);
        //iv.setScaleType(ImageView.ScaleType.CENTER_CROP);
        //iv.setScaleType(ImageView.ScaleType.CENTER_INSIDE);
        //iv.setScaleType(ImageView.ScaleType.FIT_CENTER);
        //iv.setScaleType(ImageView.ScaleType.FIT_XY);
        iv.setScaleType(ImageView.ScaleType.FIT_END);
        //iv.setScaleType(ImageView.ScaleType.FIT_START);
        // Set the Width & Height of the individual images
        iv.setLayoutParams(new Gallery.LayoutParams(90, 75));
        return iv;
    }
}

```

gridview.java

```

package com.example.chapter6;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle; import
android.view.View; import
android.widget.AdapterView;

import
android.widget.AdapterView;
import android.widget.AdapterView;
import android.widget.AdapterView;
import android.widget.AdapterView;

public class gridview extends AppCompatActivity implements
AdapterView.OnItemClickListener {

    GridView grdV;
    TextView textView;
    String[] items= { "this", "is", "a", "really", "really2", "really3","really4", "really5", "silly",
"list"};

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

    grdV = findViewById(R.id.grdv);
textView = findViewById(R.id.txt1);

    ArrayAdapter<String> adp = new ArrayAdapter<String
>(this,R.layout.textview,items);    grdV.setAdapter(adp);
grdV.setOnItemClickListener(this);

    }

    @Override    public void onItemClick(AdapterView<?> adapterView,
View view, int i, long l) {    switch(adapterView.getId()){

        case R.id.grdv:{
textView.setText(items[i]);

            break;

```

```
    }  
    }  
}
```

imgGridView.java

```
package com.example.chapter6;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import  
    android.annotation.SuppressLint;  
import android.content.Context;  
import android.content.Intent; import  
    android.os.Bundle; import  
    android.view.View;  
import android.view.ViewGroup;  
import android.widget.Adapter;  
import  
    android.widget.AdapterView;  
import  
    android.widget.BaseAdapter;  
import android.widget.Button;  
import android.widget.GridView;  
import android.widget.ImageView;  
import android.widget.TextView;  
import android.widget.Toast;  
  
public class imgGridView extends AppCompatActivity implements  
    AdapterView.OnItemClickListener  
{  
    TextView tvMsg;  
    GridView  
    gridView;  
}
```

TextView

tvSoloMsg; int[]

mThumbIds;

 ImageView ivSoloPicture;

 Button btnBack;

 Intent startintent; @Override protected void

onCreate(Bundle savedInstanceState) {

 super.onCreate(savedInstanceState);

 setContentView(R.layout.activity_img_grid_view);

 startintent = getIntent(); tvMsg =

findViewById(R.id.tvMsg); gridview =

findViewById(R.id.gridview2); mThumbIds = new

int[] {R.drawable.image1,R.drawable.image2,

 R.drawable.image3,R.drawable.image4,R.drawable.image1,R.drawable.image2,

R.drawable.image3,R.drawable.image4,R.drawable.image1,R.drawable.image2,

R.drawable.image3,R.drawable.image4}; gridview.setAdapter(new

GridImageAdapter(this,mThumbIds));

gridview.setOnItemClickListener(this);

 }

 @Override public void onItemClick(AdapterView<?> adapterView,

View view, int i, long l) { tvMsg.setText("Position: "+ i +

 " R.drawable.gallery_photo_" +

(i+1)); // show selected picture in an

individual view showScreen2(i);

 }

 private void showScreen2(int position){ // show the
selected picture as a single frame

setContentView(R.layout.solo_pic); tvSoloMsg=

findViewById(R.id.tvSoloMsg); ivSoloPicture=

```

findViewById(R.id.imgSoloPhoto);
tvSoloMsg.setText("image      "+      position);
ivSoloPicture.setImageResource(mThumbIds[position]);
btnBack=      findViewById(R.id.btnBack);
btnBack.setOnClickListener(new
View.OnClickListener() {
    @Override      public
void onClick(View view) {
startActivity(startintent);
    }

// redraw the main screen beginning the whole app.

    });
}

}

class GridImageAdapter extends BaseAdapter{
    private Context mContext;    private int
mThumbIds[];    public GridImageAdapter(Context
c,int[] ids){        this.mContext = c;
mThumbIds = new int[ids.length];        for(int
k=0;k<ids.length;k++){ mThumbIds[k]=ids[k];}

    }
    @Override        public int
getCount() {            return
mThumbIds.length;
    }

    @SuppressWarnings("WrongConstant")
    @Override        public
Object getItem(int i) {

```



```

        Toast.makeText(mContext, "Pos: " + i, 1).show();
        return null;
    }

    @Override
    public long getItemId(int i) {
return 0;
    }

    @Override    public View getView(int i, View view,
ViewGroup viewGroup) {        ImageView imageView;

        if (view == null) {
// if it's not recycled, initialize some attributes            imageView =
new ImageView(mContext);
imageView.setLayoutParams(new GridView.LayoutParams(85,
85));
imageView.setScaleType(ImageView.ScaleType.CENTER_CROP);

            imageView.setPadding(8, 8, 8, 8); }
        else {
            imageView = (ImageView) view;
        }
        imageView.setImageResource(mThumbIds[i]);
        return imageView;
    }
}

```

MainActivity.java

```

package com.example.chapter6;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import
android.graphics.ColorSpace;

import android.os.Bundle; import
android.view.View; import
android.widget.Adapter; import
android.widget.AdapterView;

```

```

import
android.widget.AdapterView;

import android.widget.Spinner;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity implements
AdapterView.OnItemSelectedListener {

    private Spinner spinner;
    //private TextView textView;
    String[] spinner_items;
    @Override    protected void onCreate(Bundle
savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    spinner = findViewById(R.id.spinner);
    //textView = findViewById(R.id.textView);

    spinner_items = new String[]{ "Select Option from
spinner", "GridView", "AutoCompleteTextView",
    "gallary widget", "Image based GridView", "Customized Lists"};
    ArrayAdapter<String> adp = new
ArrayAdapter<String>(this,R.layout.textview,spinner_items);
    adp.setDropDownViewResource(R.layout.textview);    spinner.setAdapter(adp);
    spinner.setOnItemSelectedListener(this);
    }
    @Override    public void onItemSelected(AdapterView<?> adapterView,
View view, int i, long l) {    switch(adapterView.getId()){

        case
R.id.spinner:{
        switch(i){
        case 1:{

            startActivity(new Intent(getApplicationContext(),gridview.class));
            break;
        }
        case 2:{
            startActivity(new Intent(getApplicationContext(),ACTV.class));

```

```

        break;
    }
    case 3:{
        startActivity(new Intent(getApplicationContext(),gallery.class));
        break;
    }

case 4:{

        startActivity(new Intent(getApplicationContext(),imgGridView.class));
        break;
    }
    case 5:{
        startActivity(new Intent(getApplicationContext(),customlists.class));
        break;
    }

}

break;

    }
}
}

@Override    public void
onNothingSelected(AdapterView<?> adapterView) {

    }
}

```

Xml layouts:
activity_actv.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout

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"    android:orientation="vertical"
tools:context=".ACTV">

```

```
<TextView
android:id="@+id/txt2"
android:layout_width="fill_parent"
android:layout_height="wrap_content"
android:background="#ff0033cc"
android:textSize="14pt"
android:textStyle="bold"
/>
```

```
<AutoCompleteTextView
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:completionThreshold="3"
android:id="@+id/edit"
/>
```

```
</LinearLayout>
```

activity_customlists.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
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"    android:orientation="vertical"
>

<TextView
android:id="@+id/txt5"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:background="#ff0033cc"
```

```

        android:textSize="20px"
        android:textStyle="bold"
        android:textColor="#ffffff"

        >
    </TextView>
    <ListView
        android:id="@+id/list2"

        android:layout_width="match_parent"
        android:layout_height="match_parent"

        >
    </ListView>

</LinearLayout>

```

activity_gallery.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout

    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"    android:orientation="vertical"
    tools:context=".gallery">

    <TextView

        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="SDK1.5

/samples/.../view/Gallery1.java"

        />
    <TextView android:id="@+id/txt3"

        android:layout_width="match_paren
        t"

```

```

        android:layout_height="wrap_content"
        android:background="#ff0000ff"

    />
    <Gallery
        android:id="@+id/myGallery"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"

    />
</LinearLayout>

activity_gridview.xml

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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"    android:orientation="vertical"
    tools:context=".gridview">

    <TextView
        android:id="@+id/txt1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0033cc"
        android:textSize="14pt"
        android:textStyle="bold"
    />
    <GridView
        android:id="@+id/grdv"
        android:background="#ff0000ff"
        android:layout_width="match_parent"

```

```
    android:layout_height="match_parent"
    android:verticalSpacing="35px"
    android:horizontalSpacing="5px"
    android:numColumns="auto_fit"
    android:columnWidth="100px"
    android:stretchMode="columnWidth"
        android:gravity="center"
    />
</LinearLayout>
```

activity_img_grid_view.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    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"    android:orientation="vertical"
    tools:context=".imgGridView">

    <TextView
        android:id="@+id/tvMsg"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff"

        />
    <View
        android:layout_width="match_parent"
        android:layout_height="3px"
        android:background="#ffffff"

        />
    <GridView
        android:id="@+id/gridview2"
```

```
android:layout_width="match_parent"
android:layout_height="match_parent"
android:numColumns="auto_fit"
android:verticalSpacing="10dp"
android:horizontalSpacing="10dp"
android:columnWidth="90dp"
android:stretchMode="columnWidth"
android:gravity="center"
android:background="#ff777777" />
```

```
</LinearLayout>
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?> <LinearLayout
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"    android:orientation="vertical"
tools:context=".MainActivity">
```

```
    <TextView
android:id="@+id/textView"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center"
android:text="Chapter 6"
    />
```

```
    <Spinner
android:id="@+id/spinner"
android:layout_width="250dp"
android:layout_height="wrap_content"
```



```
    android:layout_gravity="center"
    android:layout_marginTop="30dp"

    />
```

```
</LinearLayout>
customrow.xml
```

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout

xmlns:android="http://schemas.android.com/apk/res/android"

android:orientation="horizontal"

android:layout_width="match_parent"

android:layout_height="match_parent">
```

```
    <ImageView

    android:id="@+id/icon"

    android:layout_width="40px"

    android:layout_height="20sp"

    android:src="@drawable/ok"/>
```

```
    <TextView

    android:id="@+id/txt6"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:textSize="20sp"/>
```

```
</LinearLayout>
```

```
solo_pic.xml
```

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

```

        android:orientation="vertical"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#ff005500"

        >
        <TextView
        android:id="@+id/tvSoloMsg"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff" />

        <TextView
        android:layout_width="match_parent"
        android:layout_height="3px"
        android:background="#ffffff" />

        <ImageView
        android:id="@+id/imgSoloPhoto"
        android:layout_width="match_parent"
        android:layout_height="fill_parent"
        android:layout_gravity="center|fill"
        android:layout_weight="2"

        />
        <Button        android:text="Back"
        android:id="@+id/btnBack"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal" />

</LinearLayout>

textview.xml

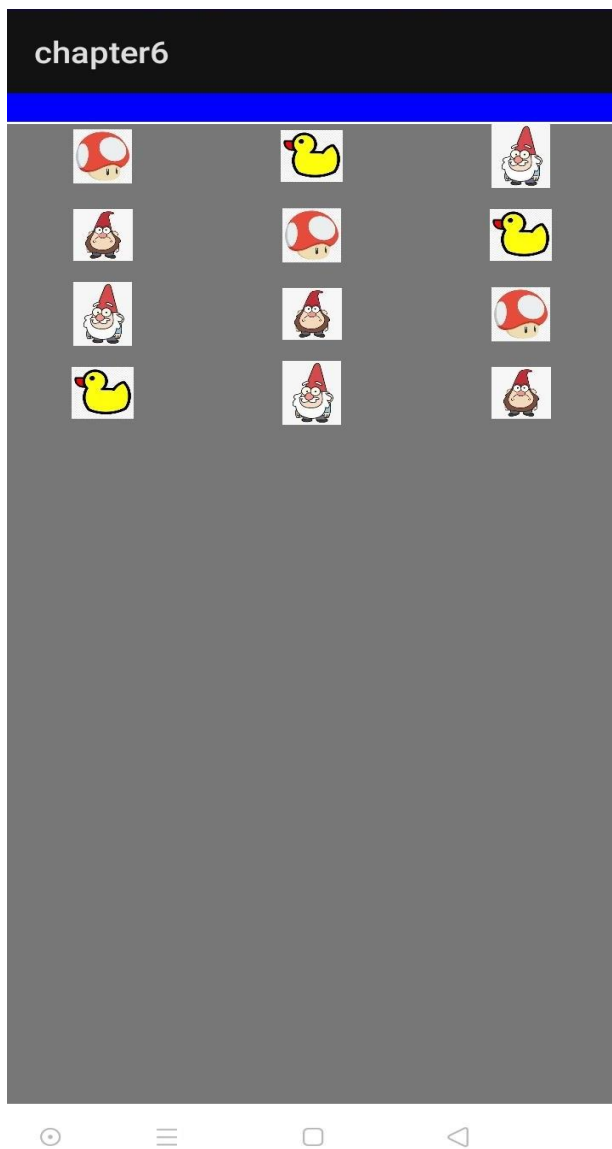
<?xml version="1.0" encoding="utf-8"?>

```

```
<TextView xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

</TextView>
```

Screenshots:



chapter6

rea

rea

really
really2
really3
really4
really5

1 2 3 4 5 6 7 8 9 0

q w e r t y u i o p

a s d f g h j k l

⬆ z x c v b n m ⬮

?123



English

.



chapter6

✓ this

✓ is

✓ a

✓ really

✓ really2

✓ really3

✓ really4

✓ really5

✓ silly

✓ list



chapter6

this is a really really2 really3
really4 really5 silly list



chapter6

SDK1.5 /samples/.../view/Gallery1.java

selected option: 6



chapter6

Chapter 6

Select Option from spinner ▼

- GridView
- AutoCompleteTextView
- gallery widget
- Image based GridView
- Customized Lists

