

Enterprise Application Development Tasks

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Section: Grey

Chapter 5:

Java classes:

fill_model.java

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

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

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

```
public class fill_model extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle
```

```
        savedInstanceState) {
```

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

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

```
    }
```

```
}
```

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.ArrayAdapter;
```

```
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);
```

```
        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(),Il_orientation.class)); break;
    }
    case 1:{
        startActivity(new
            Intent(getApplicationContext(),fill_model.class)); break;
    }
    case 2:{
        startActivity(new
            Intent(getApplicationContext(),Il_weight.class)); break;
    }
    case 3:{
        startActivity(new
            Intent(getApplicationContext(),Il_gravity.class)); break;

    }
    case 4:{

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

    }

    }
}
});
```

```
    }  
}
```

Il_gravity.java

```
package com.example.chapter5;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
  
public class Il_gravity extends AppCompatActivity {  
  
    @Override  
    protected void onCreate(Bundle  
        savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_il_gravity);  
    }  
}
```

Il_orientation.java

```
package com.example.chapter5;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;
```

[illegible]

```
        break;
    }
    case 1:{
        intent.putExtra("orientation",1
        ); startActivity(intent);
```

```
                break;
            }
        }

    }
});
}
```

Il_weight.java

```
package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class Il_weight extends AppCompatActivity {

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

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.AdapterView.OnItemClickListener;
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 onItemClickListener(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(),ScrollView.class)); break;

    }
    case 4:{

    }
    }
}
});

}
```

```
}
```

orientation.java

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

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

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

```
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);
```

```
            }
```

```
        }
```

```
}  
}
```

padding.java

```
package com.example.chapter5;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.os.Bundle;  
  
public class padding extends AppCompatActivity {  
  
    @Override  
    protected void onCreate(Bundle  
        savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_padding);  
    }  
}
```

RelativeLayout.java

```
package com.example.chapter5;  
  
import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;

public class RelativeLayout extends AppCompatActivity {

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

scrollviewlayout.java

```
package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class ScrollViewLayout extends AppCompatActivity {

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

tablelayout.java

```
package com.example.chapter5;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class tablelayout extends AppCompatActivity {

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

Xml layouts:

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="#ff0033"
    cc"
    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="125dp"
    android:layout_height="wrap_content"
    android:text="Go"
    android:textStyle="bold"
/>
```

```
</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/listview"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_marginTop="50dp"
        />
```


</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_paren
        t"
        android:layout_height="wrap_conte
        nt" 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"
    />
```

```
</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/listview"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_marginTop="50dp"
    />
</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="125dp"
```

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

```
    android:textStyle="bold"
```

```
    android:layout_weight="1"
```

```
/>
```

```
</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_paren  
t"  
    android:layout_height="wrap_conte  
nt" 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_paren  
t"  
    android:layout_height="match_pare  
nt" 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"
    e"
    android:layout_width="wrap_content"
    "

    android:layout_height="wrap_content"
    android:textSize="18sp"
/>
```

```
<Button
    android:id="@+id/btnGo"
    o"
    android:layout_width="wrap_content"
    "

    android:layout_height="wrap_content"
    android:text="Go"
    android:textStyle="bold"
/>
```

```
</LinearLayout>
```



```
<?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="125dp"
```

```
        android:layout_height="wrap_content"
        android:text="Go"
        android:textStyle="bold"
    />
```

```
</LinearLayout>
```

activity_relativelayou.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/rl1"
    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_paren
t"
    android:layout_height="wrap_conte
nt"
    android:layout_below="@+id/lblUserNa
me"
    android:layout_alignParentLeft="true"
    android:padding="20dip"
    android:layout_alignTop="@+id/rl1"
    tools:ignore="NotSibling" />
<Button
    android:id="@+id/btnGo"
    o"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/ediUserName"
    android:layout_alignRight="@+id/ediUserNa
me" android:text="Go"
    android:textStyle="bold">
</Button>
<Button
    android:id="@+id/btnCanc
el"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_toLeftOf="@+id/btnGo"
    android:layout_below="@+id/ediUserNa
me" android:text="Cancel"
    android:textStyle="bold">
</Button>

</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_conte
                nt"
                android:src="@drawable/ic_launcher_background" />
            <TextView
                android:id="@+id/textView
                1"
```

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" />
</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"
    />

</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"

```

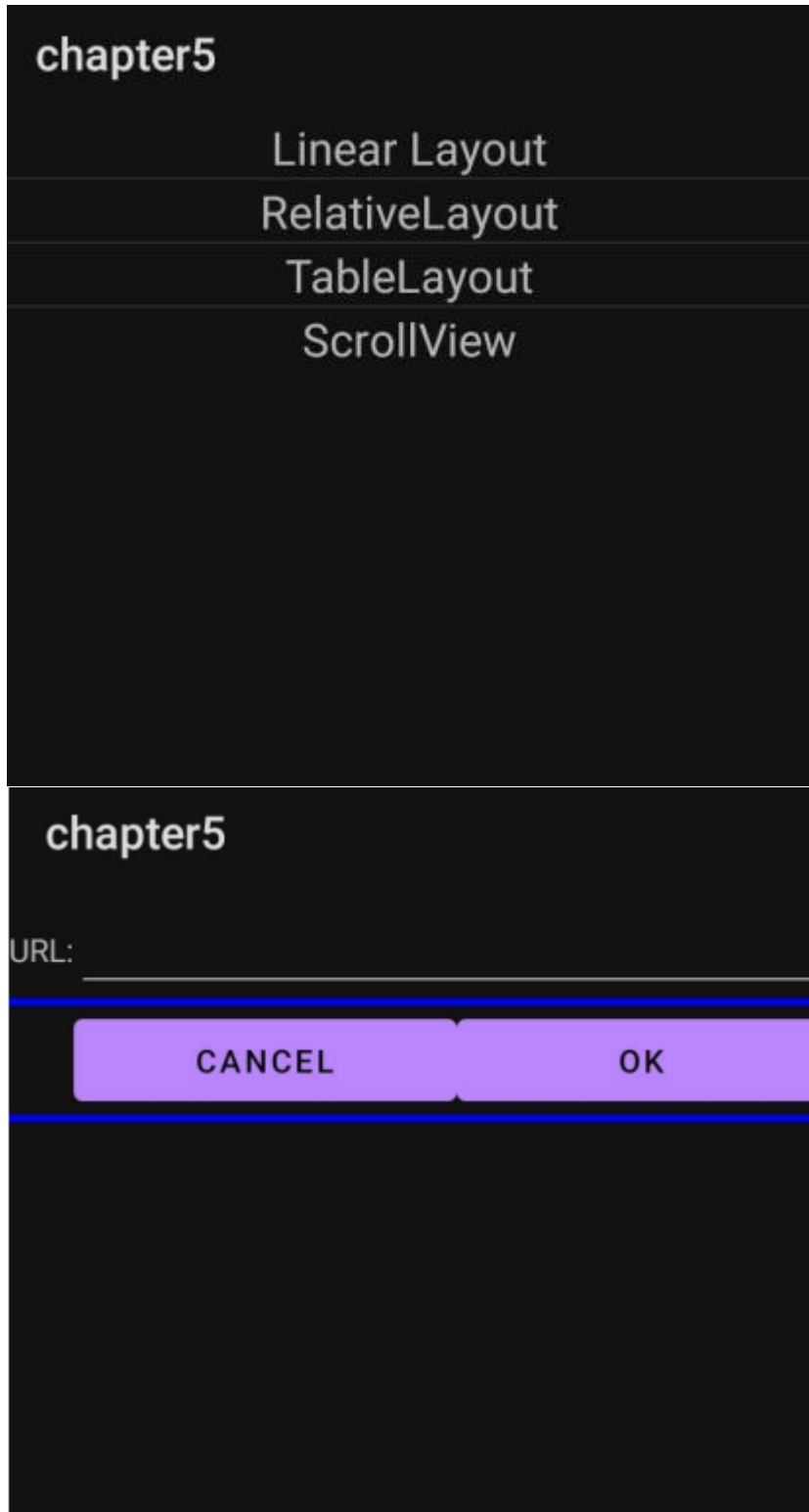
```
android:layout_height="match_parent"  
android:gravity="center"  
android:orientation="vertica  
|"
```

```
android:textSize="20dp"
```

```
>
```

```
</TextView>
```

Screenshots:



chapter5

User Name

GO

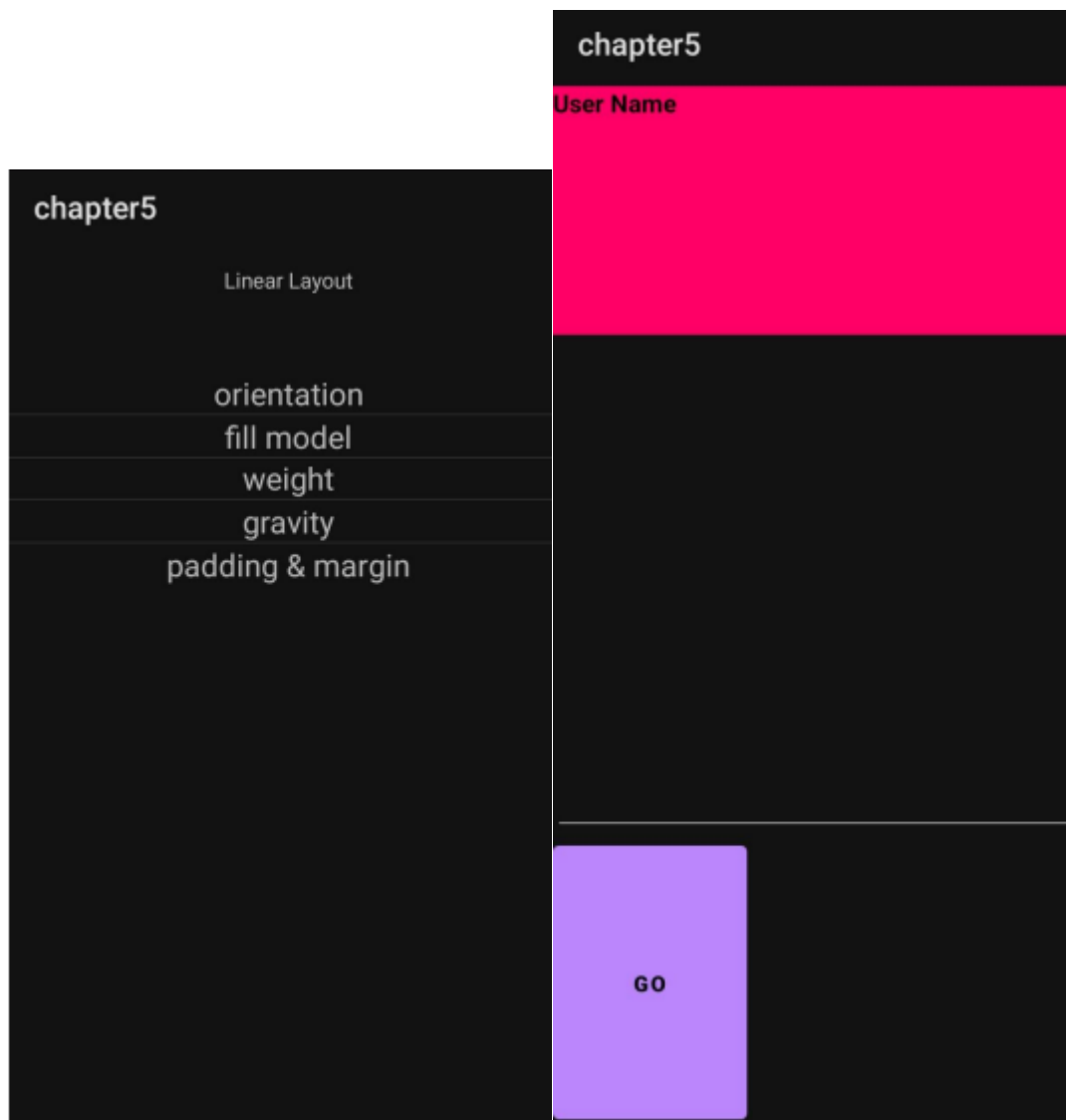
chapter5

User Name

CANCEL

GO





Chapter 6

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.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);
        _var1.addTextChangedListener(this);

    }

    @Override
    public void beforeTextChanged(CharSequence charSequence, int i, int i1, int i2) {

    }

    @Override
    public void onTextChanged(CharSequence charSequence, int i, int i1,
        int i2) { textView.setText(_var1.getText());
    }

    @Override
    public void afterTextChanged(Editable editable) {

    }
}

```

customlists.java

```

package com.example.chapter6;

import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;

```



```

import android.app.Activity;
import
android.content.Context;
import android.os.Bundle;
import
android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import
android.widget.AdapterView;
import android.widget.ImageView;
import android.widget.ListView;
import android.widget.TextView;

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;
    @Overrid
    e
    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);  
  
    }  
  
}
```

gallery.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 gallery extends AppCompatActivity{

    TextView
    txt3; Gallery
    gllry;
    @Override
    protected void onCreate(Bundle
        savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_gallery);
        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.setOnItemSelectedListener(new

```

```
AdapterView.OnItemSelectedListener() {  
    @Override  
    public void onItemSelected(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[]
    myImagelds;
    /** Simple Constructor saving the 'parent'
    context. */ public ImageAdapter(Context c) {
        myImagelds = 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;
        myImagelds = new
        int[count];
        for(int k=0;k<count;k++){myImagelds[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_X
        Y);
        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.OnItemClickListener;
import
android.widget.ArrayAdapter;
import android.widget.GridView;
import android.widget.TextView;

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.AdapterView;
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_vie
            w); 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.i
            mage2,

```

```
R.drawable.image3,R.drawable.image4,R.drawable.image1,R.drawable.i  
mage2, R.drawable.image3,R.drawable.image4};  
gridview.setAdapter(new GridImageAdapter(this,mThumblds));
```

```

        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[positi
on]); 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_C
        ROP); imageView.setPadding(8, 8, 8, 8); }
    else {
        imageView = (ImageView) view;
    }
    imageView.setImageResource(mThumbld
    s[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",
        "gallery 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(t
        his);
    }
    @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"
        t"
        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"
    t"
    android:layout_height="match_parent"
    >
```



```
</ListView>
```

```
</LinearLayout  
>
```

activity_gallary.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="vertica
```

```
l" tools:context=".gallary">
```

```
<TextView
```

```
    android:layout_width="match_paren
```

```
t"
```

```
    android:layout_height="wrap_conte
```

```
nt"
```

```
    android:text="SDK1.5 /samples/.../view/Gallery1.java"
```

```
/>
```

```
<TextView
```

```
    android:id="@+id/txt3
```

```
"
```

```
    android:layout_width="match_paren
```

```
t"
```

```
    android:layout_height="wrap_conte
```

nt" android:background="#ff0000ff"

```
        />
    <Gallery
        android:id="@+id/myGaller
        y"
        android:layout_width="match_paren
        t"
        android:layout_height="wrap_conte
        nt"

    />
```

```
</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="vertica
    l" 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/tvMs
    g"
    android:layout_width="match_paren
    t"
    android:layout_height="wrap_conte
    nt" android:background="#ff0000ff"
/>
```

```
<View
    android:layout_width="match_paren
    t" android:layout_height="3px"
    android:background="#ffffff"
/>
```

```
<GridView
    android:id="@+id/gridview2"
    android:layout_width="match_paren
    t"
    android:layout_height="match_pare
    nt" 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_conte
    nt" android:layout_gravity="center"
    android:text="Chapter 6"
/>
```

```
<Spinner
    android:id="@+id/spinner"
    android:layout_width="250d
    p"
    android:layout_height="wrap_conte
    nt" 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_conte
nt" 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_paren
t"
```

```
android:layout_height="match_pare  
nt" android:background="#ff005500"  
>
```

```
<TextView
    android:id="@+id/tvSoloMs
g"
    android:layout_width="match_paren
t"
    android:layout_height="wrap_conte
nt"    android:background="#ff0000ff"
/>

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

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

<Button
    android:text="Bac
k"
    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

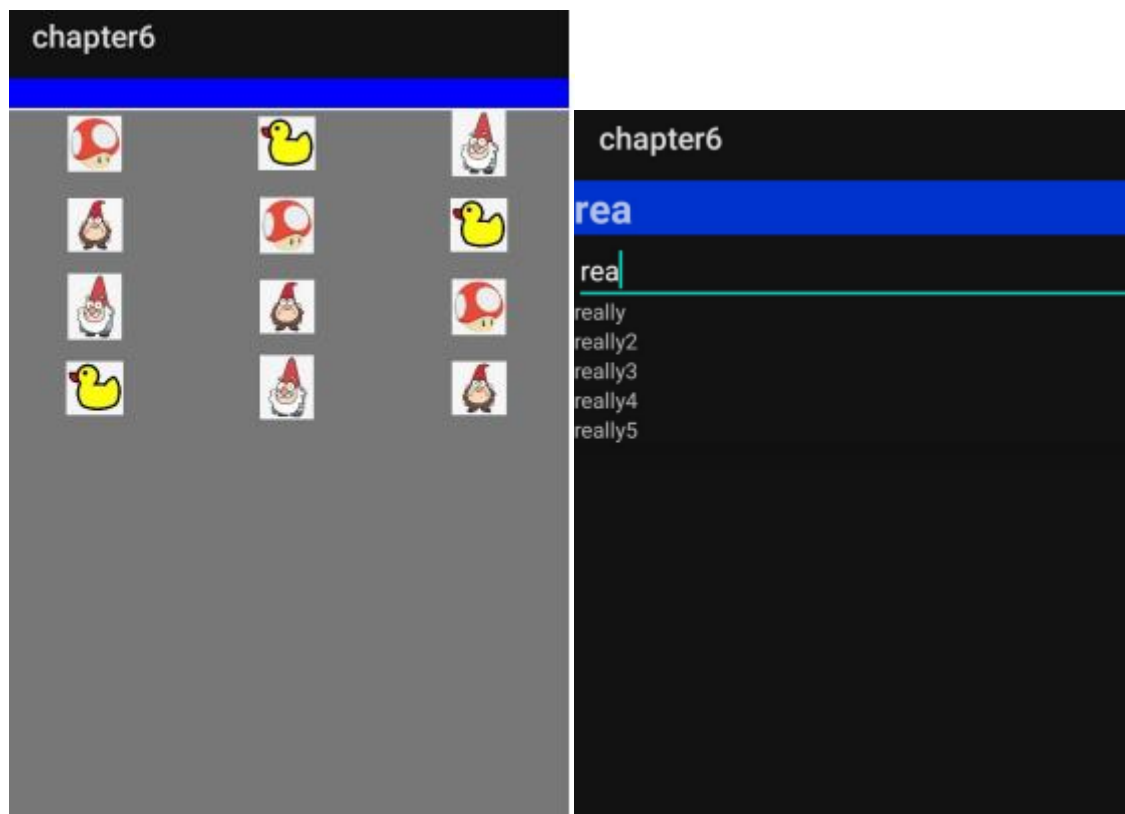
xmlns:android="http://schemas.android.com/apk/res/android"

android:layout_width="match_parent"

android:layout_height="match_parent">

</TextView>

Screenshots:



chapter6

✓ 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

Chapter 7:

Java classes:

`DateTimePickerDialog.java`

```
package com.example.chapter7;
```

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

```
import android.app.DatePickerDialog;
```

```
import
```

```
android.app.DatePickerDialog.OnDateSetListener;
```

```
import android.app.TimePickerDialog;
```

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

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

```
import
```

```
android.widget.Button;
```

```
import
```

```
android.widget.DatePicker;
```

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

```
import
```

```
android.widget.TimePicker;
```

```
import java.text.DateFormat;
```

```
import java.util.Calendar;
```

```
public class DateTimePickerDialog extends AppCompatActivity  
{ DateFormat fmtDateAndTime=  
DateFormat.getDateTimeInstance(); TextView  
lblDateAndTime;  
Calendar myCalendar= Calendar.getInstance();  
DatePickerDialog.OnDateSetListener d = new  
OnDateSetListener() {  
    @Override  
    public void onDateSet(DatePicker datePicker, int i, int i1,  
        int i2) { myCalendar.set(Calendar.YEAR, i);  
        myCalendar.set(Calendar.MONTH, i1);  
        myCalendar.set(Calendar.DAY_OF_MONTH, i2);  
        updateLabel();  
    }  
};
```

```
TimePickerDialog.OnTimeSetListener t = new  
TimePickerDialog.OnTimeSetListener() { @Override  
    public void onTimeSet(TimePicker timePicker, int i,  
        int i1) { myCalendar.set(Calendar.HOUR_OF_DAY,  
            i); myCalendar.set(Calendar.MINUTE, i1);  
            updateLabel();  
        }  
};
```

```
@Override  
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_datetimepickerdialog);  
    lblDateAndTime= (TextView)  
    findViewById(R.id.lblDateAndTime); Button btnDate=  
    (Button) findViewById(R.id.btnDate);
```

```

btnDate.setOnClickListener(new
    View.OnClickListener() { public void onClick(View
        v) {
            new DatePickerDialog(DateTimePickerDialog.this, d,
                myCalendar.get(Calendar.YEAR),
                myCalendar.get(Calendar.MONTH),
                myCalendar.get(Calendar.DAY_OF_MONTH)).show();
        }
    });

Button btnTime= (Button)
findViewById(R.id.btnTime);
btnTime.setOnClickListener(new
    View.OnClickListener() {
        public void onClick(View v) {
            new
                TimePickerDialog(DateTimePickerDialog.this, t,
                    myCalendar.get(Calendar.HOUR_OF_DAY),
                    myCalendar.get(Calendar.MINUTE),
                    true).show();
        }
    });
updateLabel();
}

private void updateLabel() {
    lblDateAndTime.setText(fmtDateAndTime.format(myCalendar.getTime()));
}
}

```

DigitalAnalogClock.java

```

package com.example.chapter7;

```

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

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

```
public class DigitalAnalogClock extends AppCompatActivity {

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

Main.java

```
package com.example.chapter7;

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.OnItemClickListener;
import android.widget.AdapterView.OnItemSelectedListener;

public class Main extends AppCompatActivity implements
AdapterView.OnItemClickListener {

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



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

```
Spinner spinner1 = findViewById(R.id.spinner1);

String[] items = {"Select Options","Date&Time Picker Dialog","Digital&Analog Clock","Tab widget","Sliding Drawer"};

ArrayAdapter<String> adp = new
ArrayAdapter<String>(this,R.layout.textview,items); spinner1.setAdapter(adp);
spinner1.setOnItemSelectedListener(this);
}
```

@Override

```
public void onItemSelected(AdapterView<?> adapterView, View view, int i,
long l) { switch ( adapterView.getId()){
    case
        R.id.spinner1:{
            switch(i){
                case 0:{
                    break
                }
                ;
            }
            case 1:{
                startActivity(new
                    Intent(getApplicationContext(),DateTimePickerDialog.class)); break;
            }
            case 2:{
                startActivity(new
                    Intent(getApplicationContext(),DigitalAnalogClock.class)); break;
            }
            case 3:{
                startActivity(new
                    Intent(getApplicationContext(),Tab_Widget.class)); break;
            }
            case 4:{
                startActivity(new
                    Intent(getApplicationContext(),SlidingDrawer.class)); break;
            }
        }
    }
}
```

```

        }
    }
    break;
}
}
}

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

}
}

```

SlidingDrawer.java

```

package com.example.chapter7;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class SlidingDrawer extends AppCompatActivity {

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

```

Tab_Widget.java

```
package com.example.chapter7;
```

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

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

```
import
```

```
android.widget.TabHost;
```

```
public class Tab_Widget extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle
```

```
        savedInstanceState) {
```

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

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

```
        TabHost
```

```
        tabs=(TabHost)findViewById(R.id.tabhost);
```

```
        tabs.setup();
```

```
        TabHost.TabSpec spec;
```

```
        spec
```

```
        =tabs.newTabSpec("tag1");
```

```
        spec.setContent(R.id.tab1);
```

```
        spec.setIndicator("1-Clock");
```

```
        tabs.addTab(spec);
```

```
        spec=tabs.newTabSpec("tag
```

```
        2");
```

```
        spec.setContent(R.id.tab2);
```

```
        spec.setIndicator("2-Login");
```

```
        tabs.addTab(spec);
```

```
        tabs.setCurrentTab(0);
    }
}
```

XML layouts:

activity_datetimepickerdialog.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:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".DateTimePickerDialog">

    <TextView android:id="@+id/lblDateAndTime"
        android:layout_width="match_parent"
        android:layout_height="47px"
        android:background="#ff000099"
        android:textStyle="bold">

    </TextView>

    <Button
        android:id="@+id/btnDate"
```

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Set the Date">
```

```
</Button>
```

```
<Button
    android:id="@+id/btnTime"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Set the Time">
```

```
</Button>
```

```
</LinearLayout>
```

activity_digital_analog_clock.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:orientation="vertical"
    android:layout_height="match_parent"
    tools:context=".DigitalAnalogClock">
```

```
<DigitalClock
    android:id="@+id/digital"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:background="#ff0000ff"
    android:textSize="20px"
    android:layout_below="@+id/analog"
    android:layout_centerHorizontal="true"
>
```

```
</DigitalClock>
```

```
<AnalogClock
    android:id="@+id/analog"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:layout_alignParentLeft="true"
>
```

```
</AnalogClock>
```

```
</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:orientation="vertical"
android:layout_width="match_parent"
android:layout_height="match_parent" tools:context=".Main">
```

```
<Spinner android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/spinner1"
/>
```

```
</LinearLayout>
```

activity_sliding_drawer.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:layout_width="match_parent" android:layout_height="match_parent"
    tools:context=".SlidingDrawer">
```



```
<TextView
    android:id="@+id/label0"
    android:layout_alignParentTop="true"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="#ffcc3300"
    android:text="SlidingDrawerDemo"
    android:textSize="24sp" />
<SlidingDrawer
    android:id="@+id/drawer"
    android:layout_alignParentBottom="true"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:handle="@+id/handle"
    android:content="@+id/content" >
<ImageView
    android:id="@id/handle"
    android:layout_width="40sp"
    android:layout_height="40sp"
    android:src="@drawable/tray_handle_normal" />
<LinearLayout
    android:id="@id/content"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical" >
<TextView
    android:id="@+id/label1"
    android:layout_width="fill_parent"
```

```
        android:layout_height="wrap_content"
        android:background="#ff006666"
        android:text="Line 1" android:textSize="22sp"
    />
<TextView
    android:id="@+id/label2"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff669900"
    android:text="Line 2" android:textSize="22sp"
/>
<TextView
    android:id="@+id/label3"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000cc"
    android:text="Line 3" android:textSize="22sp"
/>
<TextView
    android:id="@+id/filler1"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content"
    android:textSize="6sp" />
<Button
    android:id="@+id/btn1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:padding="4px"
```

```

        android:text=" btn1 -time? " />

        <Button
            android:id="@+id/btn2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:padding="4px"
            android:text=" btn2 -close " />

    </LinearLayout>

</SlidingDrawer>

</RelativeLayout>

}

activity_tab_widget.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:orientation="vertical"
    android:layout_height="match_parent"
    tools:context=".Tab_Widget">

    <TabHost

```

```
android:id="@+id/tabhost"
android:layout_width="match_parent"
android:layout_height="match_parent">
<TabWidget android:id="@android:id/tabs"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"/>
<FrameLayout android:id="@android:id/tabcontent"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingTop="62px">
    <!--PUT HERE FrameLayout1 --><!--PUT HERE FrameLayout2 -->
    <FrameLayout
        android:id="@+id/tab1"
        android:layout_width="match_parent"
        android:layout_height="match_parent">
        <include
            layout="@layout/tab1"

        />

    </FrameLayout>

    <FrameLayout
        android:id="@+id/tab2"
        android:layout_width="match_parent"
        android:layout_height="match_parent">
```

```
        <include
            layout="@layout/tab2" />
    </FrameLayout>
```

```
</FrameLayout>
```

```
</TabHost>
```

```
</LinearLayout>
```

tab1.xml

```
<?xml version="1.0" encoding="utf-8"?>
<AnalogClock xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent" android:layout_height="match_parent"
    android:id="@+id/tab1"
    >

</AnalogClock>
```

tab2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:id="@+id/tab2"
    android:layout_width="match_parent"
    android:layout_height="match_parent">

    <TextView android:id="@+id/caption1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:background="#ff0000ff"
        android:text="Person Name"
        android:textSize="20px">

    </TextView>

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

    </EditText>
```

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

```
</Button>
```

```
</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:

chapter7

1-CLOCK

2-LOGIN



chapter7

19:47



chapter7

Nov 19, 2021 19:47:16

SET THE DATE

SET THE TIME

19:47



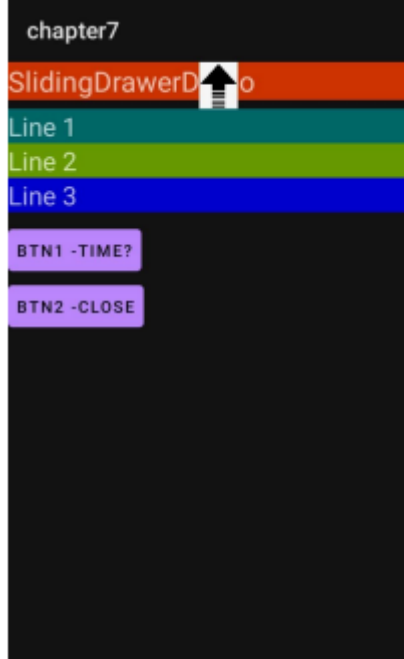
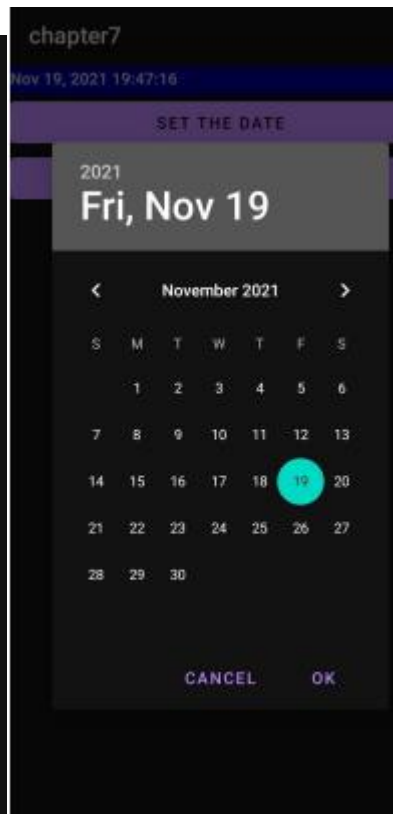
CANCEL

OK

chapter7

SlidingDrawerDemo





Chapter 8

Java classes:

MainActivity.java

```
package com.example.chapter8;

import androidx.appcompat.app.AppCompatActivity;

import android.graphics.Color;
import android.os.Bundle; import
android.text.Html; import
android.text.Spanned;
import android.view.ContextMenu;
import android.view.Menu;
import android.view.MenuItem;
import android.view.SubMenu;
import android.view.View; import
android.widget.EditText;

public class MainActivity extends AppCompatActivity {

    EditText etMessage1, etMessage2; Integer[]
    arrayPointSize = {10,20,30,40,50}; @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

```

        setContentView(R.layout.activity_main);
        etMessage1 = findViewById(R.id.etMessage1);
        etMessage2 = findViewById(R.id.etMessage2);
        registerForContextMenu(etMessage1);
        registerForContextMenu(etMessage2);

    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
// only one Option menu per activity
        populateMyFirstMenu(menu);
        return super.onCreateOptionsMenu(menu);
    }

    @Override
    public boolean onPrepareOptionsMenu(Menu menu){
        //populateMyFirstMenu(menu);
        return super.onPrepareOptionsMenu(menu);
    }

    private void populateMyFirstMenu(Menu menu){ int
        groupId = 0;
//arguments: groupId, optionId, order, title
        MenuItem item1 =menu.add(groupId, 1, 1, "10 points");
        MenuItem item2 =menu.add(groupId, 2, 2, "20 points");
        MenuItem item3 =menu.add(groupId, 3, 3, "30 points");
        MenuItem item4 =menu.add(groupId, 4, 4, "40 points");
        //menu.add(groupId, 5, 5, "50 points");

```

```
menu.add(groupId, 6, 8, "Red text");
menu.add(groupId, 7, 7, "Green Text");
menu.add(groupId, 8, 6, "Blue text");
```

```
item1.setIcon(R.drawable.france);
item2.setIcon(R.drawable.germany);
item3.setIcon(R.drawable.uk);
item4.setIcon(R.drawable.us);
```

```
item1.setShortcut('1','1');
item2.setShortcut('2','2');
item3.setShortcut('3','3');
item4.setShortcut('4','4');
```

```
int smGroupId = 0; // don't care, same as Menu.NONE
int smItemId = 5; // fifth element
int smOrder = 5; // don't care, same as Menu.NONE
```

```
SubMenu subMenu = menu.addSubMenu(smGroupId,smItemId,smOrder,"Sub
menu");
```

```
subMenu.setHeaderIcon(R.drawable.uk);
subMenu.setIcon(R.drawable.us);
```

```
MenuItem sub51 = subMenu.add(smGroupId,5,1,"sub-menu 5-1");
MenuItem sub52 = subMenu.add(smGroupId,5,2,"sub-menu 5-2");
MenuItem sub53 = subMenu.add(smGroupId,5,3,"sub-menu 5-3");
```

```
}
```

```
public void onCreateContextMenu(ContextMenu menu, View v,
    ContextMenu.ContextMenuInfo menuInfo) {
```

```

        super.onCreateContextMenu(menu, v, menuInfo);

        if (v.getId() == etMessage1.getId())
// create a menu for etMessage1 box
            populateMyFirstMenu(menu);
        if (v.getId() == etMessage2.getId()){
// create a menu for etMessage2 box
            populateMySecondMenu(menu);
        }
    }

    private void populateMySecondMenu(Menu menu){ int
        groupId = 0;
//arguments: groupId, optionId, order, title
        menu.add(groupId, 9, 1, "Bold");
        menu.add(groupId, 10, 2, "Italic");
        menu.add(groupId, 11, 3, "Normal");
    }

    @Override
    public boolean onContextItemSelected(MenuItem item) {
        return(applyMenuOption(item) ||
            super.onContextItemSelected(item) );
    }

    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        return(applyMenuOption(item) ||
            super.onOptionsItemSelected(item) );
    }
}

```

```

private boolean applyMenuOption(MenuItem item){ int
    menuItemId = item.getItemId(); // 1, 2, 3, ...11 String
    strMsg2 = etMessage2.getText().toString(); if
    (menuItemId < 5) {
// first five option are for setting text size
        int newPointSize = arrayPointSize[menuItemId - 1];
        etMessage1.setTextSize(newPointSize);
        etMessage2.setTextSize(newPointSize);
    }
    else if (menuItemId == 5) {

        etMessage1.setText(
            "You have selected: \n" + item.getTitle()
            + "\nId: " + menuItemId
            + " order: " + item.getOrder());
    }
    else {
// either change color on box text1 or style on text2 if
        (menuItemId == 6)
            etMessage1.setTextColor(Color.RED);
//etMessage1.setTextColor(0xffff0000); // red else
        if (menuItemId == 7)

            etMessage1.setTextColor(0xff00ff00); // green
        else if (menuItemId == 8)
            etMessage1.setTextColor(0xff0000ff); // blue
        else if (menuItemId == 9)
            etMessage2.setText(beautify(strMsg2, "BOLD")); //bold
    }
}

```

```

        else if (menuItemId == 10)
            etMessage2.setText(beautify(strMsg2, "ITALIC")); //italic
        else if (menuItemId == 11) etMessage2.setText(beautify(strMsg2,
            "NORMAL")); //normal
    }
    return false;
}

private Spanned beautify (String originalText, String selectedStyle){
    Spanned answer = null;
    if (selectedStyle.equals("BOLD"))
        answer = Html.fromHtml("<b>" + originalText + "</b>"); else
    if (selectedStyle.equals("ITALIC"))
        answer = Html.fromHtml("<i>" + originalText + "</i>"); else
    if (selectedStyle.equals("NORMAL"))
        answer = Html.fromHtml("<normal>" + originalText + "</normal>"); return
    answer;
}
}

```

XML layouts:

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"

```

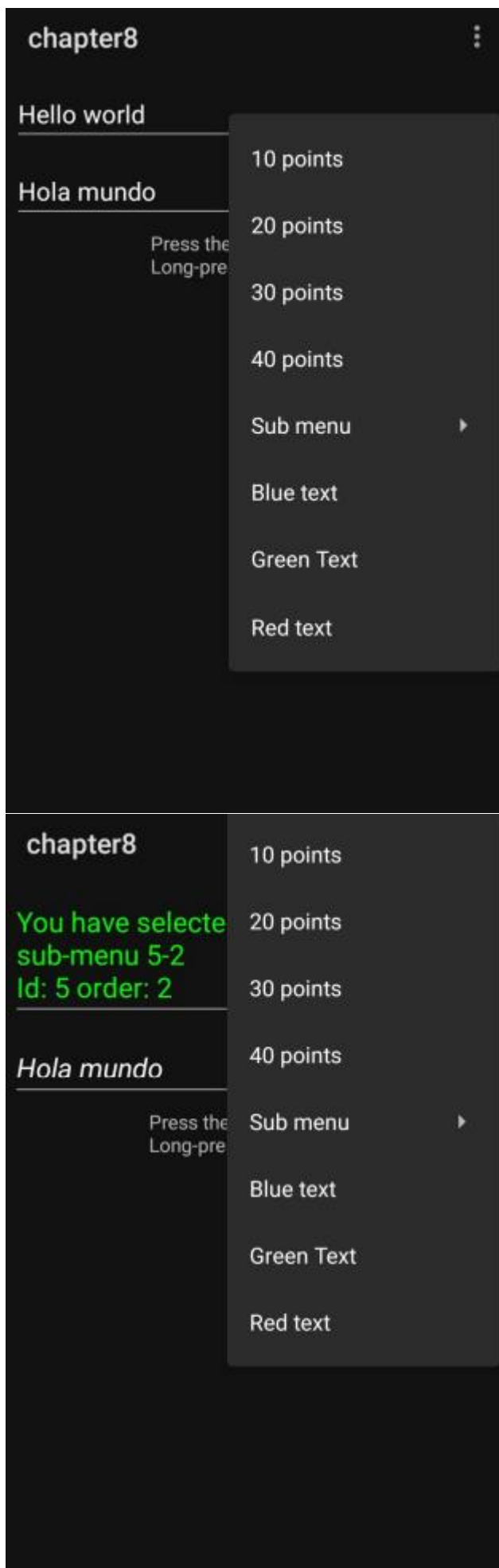


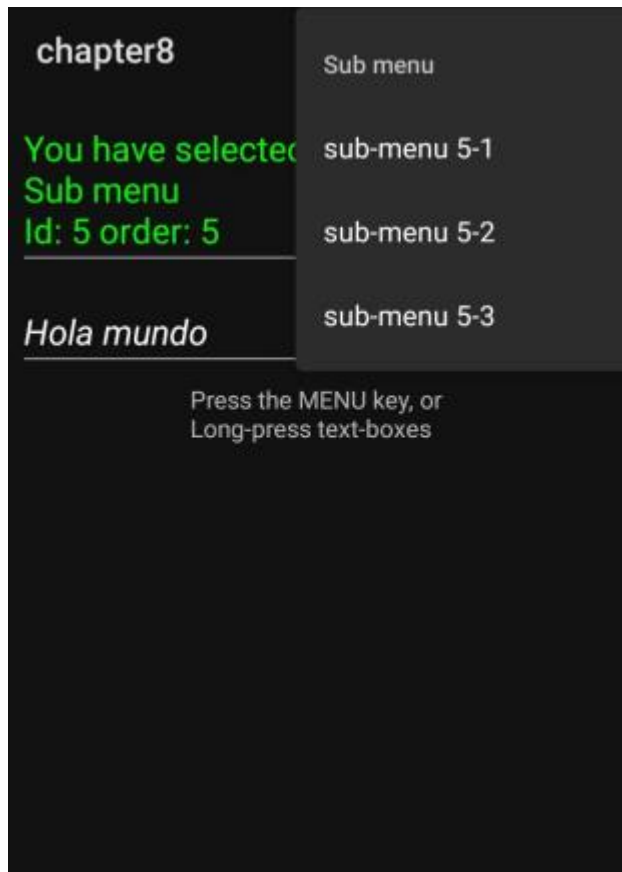
```
android:orientation="vertical"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
```

```
<EditText android:id="@+id/etMessage1"
    android:text="Hello world"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin = "5dp" />
<EditText android:id="@+id/etMessage2"
    android:text="Hola mundo"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_margin = "5dp" />
<TextView
    android:text="Press the MENU key, or \nLong-press text-boxes"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center" />

</LinearLayout>
```

Screenshots:





Chapter 9

Java classes:

MainActivity.java

```
package com.example.chapter9;
```

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

```
import android.graphics.Typeface;
```

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

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

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

```
    @Override
```

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
    TextView textView = findViewById(R.id.custom);  
    Typeface typeface = Typeface.createFromAsset(getAssets(),"fonts/mvboli.ttf");  
    textView.setTypeface(typeface);  
}  
}
```

Xml layouts:

activity_main.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="1"
    tools:context=".MainActivity">

    <TableRow android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:id="@+id/row1">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:background="#ff006666"
            android:layout_marginRight="24px"
            android:text="sans:" android:textSize="20sp"
            />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
```

```
        android:text="Hello, world!"
        android:textSize="20sp"
        android:typeface="sans"
    />
</TableRow>

<TableRow android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:id="@+id/row2">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#ff006666"
        android:layout_marginRight="24px"
        android:text="sans:" android:textSize="20sp"
    />
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!"
        android:textSize="20sp"
        android:typeface="serif"
    />
</TableRow>
```

```
<TableRow android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:id="@+id/row3">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#ff006666"
        android:layout_marginRight="24px"
        android:text="sans:" android:textSize="20sp"
    />
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!"
        android:textSize="20sp"
        android:typeface="monospace"
    />
</TableRow>
```

```
<TableRow android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:id="@+id/row4">
    <TextView
```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#ff006666"
        android:layout_marginRight="24px"
        android:text="sans:" android:textSize="20sp"
    />
    <TextView
        android:id="@+id/custom"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello, world!" android:textSize="20sp"

    />
</TableRow>

</TableLayout>
```

Screenshots:

Chapter9

```
sans: Hello, world!  
sans: Hello, world!  
sans: Hello, world!  
sans: Hello, world!
```

Chapter 10:

Java classes:

[MainActivity.java](#)

```
package com.example.chapter10;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {

    @Override
```

```
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_main);  
  
    Intent i = new Intent(this,webview.class);  
    Button b1=null,b2=null;  
    b1 = findViewById(R.id.b1);  
    b2 = findViewById(R.id.b2);  
    b1.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View view) {  
            //  
            i.putExtra("website",0);  
            startActivity(i);  
        }  
    });  
    b2.setOnClickListener(new View.OnClickListener() {  
        @Override  
        public void onClick(View view) {  
            // i.putExtra("website",1);  
            startActivity(i);  
        }  
    });  
}
```

```
}
```

webview.java

```
package com.example.chapter10;
```

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

```
import android.os.Bundle; import  
android.webkit.WebView;  
import android.webkit.WebViewClient;
```

```
public class webview extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_webview); WebView  
        webView = findViewById(R.id.webview1);
```

```
        webView.getSettings().setJavaScriptEnabled(true);  
        webView.getSettings().setDomStorageEnabled(true);  
        Bundle b= getIntent().getExtras();  
        switch(b.getInt("website")){  
            case 0:{ webView.loadUrl("https://facebook.com");
```

```

webView.setWebViewClient(new WebViewClient() {
    @Override
    public boolean shouldOverrideUrlLoading(WebView view, String url){
        // do your handling codes here, which url is the requested url
        // probably you need to open that url rather than redirect:
        view.loadUrl(url);
        return false; // then it is not handled by default action
    }
    @Override
    public void onPageFinished(WebView view, String url) {
        // do your stuff here
        super.onPageFinished(view, url);
        webView.loadUrl("javascript: var
x=document.getElementById('m_login_email').value='user123';");
        webView.loadUrl("javascript: var
y=document.getElementById('m_login_password').value='password123';");

    }
});
break;
}
case 1:{

```

```

webView.loadUrl("https://www.google.com/maps/@32.46608775788683,74.51402
883432716,17z");

```

```

webView.setWebViewClient(new WebViewClient() {
    @Override
    public boolean shouldOverrideUrlLoading(WebView view, String url){

```

```

        // do your handling codes here, which url is the requested url
        // probably you need to open that url rather than redirect:
        view.loadUrl(url);
        return false; // then it is not handled by default action
    }

});
break;
}
}
}
}
}
}
}

```

XML layouts:

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">

    <Button
        android:id="@+id/b1"

```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
        android:textSize="20sp"
        android:text="Facebook"
    />
```

```
<Button
    android:id="@+id/b2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:textSize="20sp"
    android:text="google map"
/>
```

```
</LinearLayout>
```

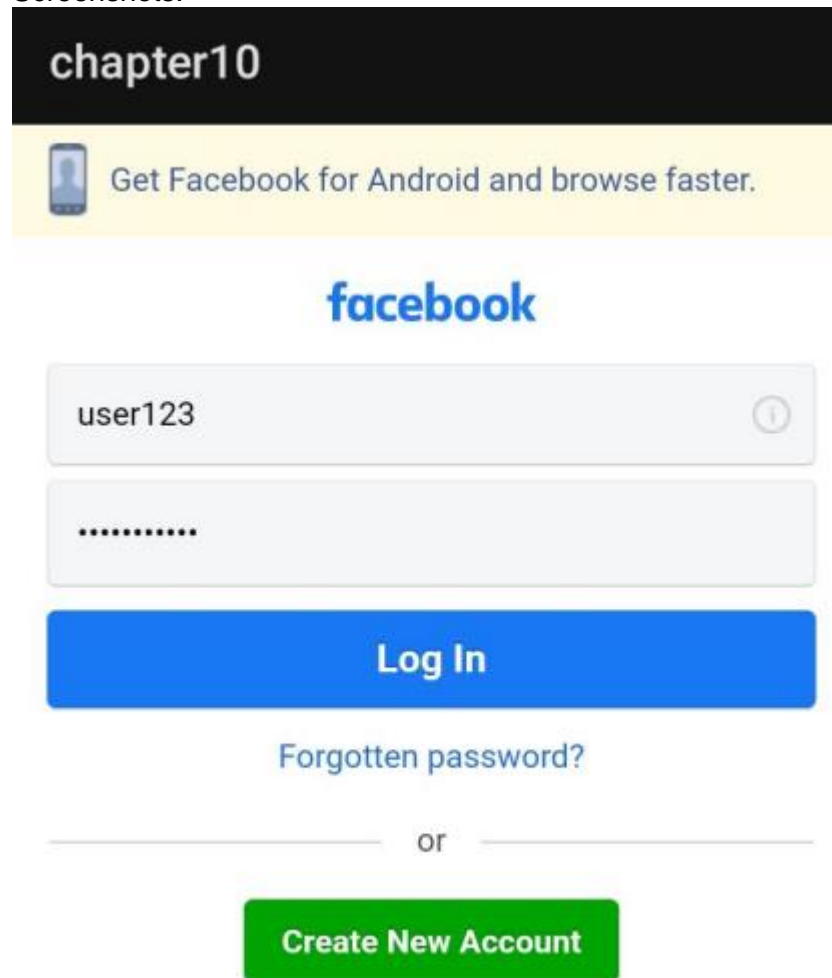
activity_webview.xml

```
<?xml version="1.0" encoding="utf-8"?>
<WebView 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/webview1"
```

```
android:layout_width="match_parent"  
android:layout_height="match_parent"  
android:orientation="vertical" tools:context=".webview">
```

```
</WebView>
```

Screenshots:

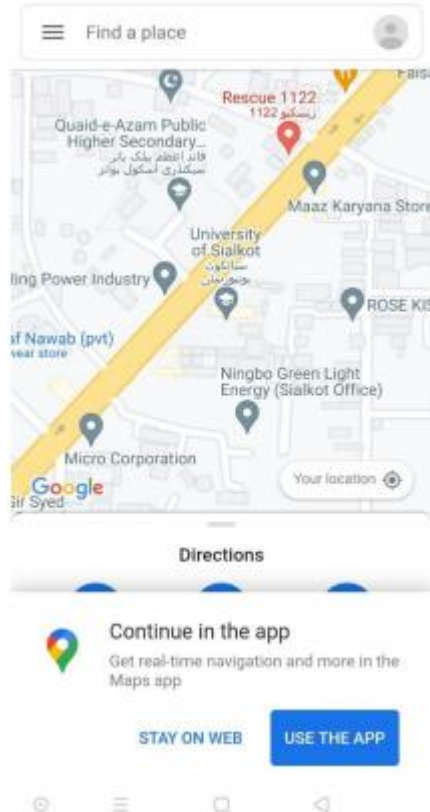


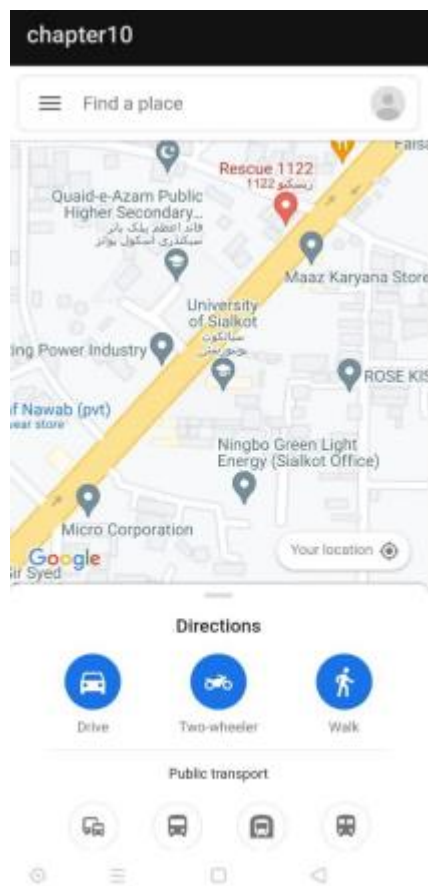
chapter10

FACEBOOK

GOOGLE MAP

chapter10





Chapter 11

Java classes:

customtoast.java

```
package com.example.chapter11;
```

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

```
import android.os.Bundle; import
android.view.Gravity; import
android.view.View; import
android.widget.Button; import
android.widget.EditText; import
android.widget.Toast;
```

```
public class customtoast extends AppCompatActivity {
```

```
EditText xBox;  
EditText yBox;  
Button btn1;  
@Override  
protected void onCreate(Bundle savedInstanceState) {  
    super.onCreate(savedInstanceState);  
    setContentView(R.layout.activity_customtoast); xBox =  
    (EditText)findViewById(R.id.xBox);  
    yBox = (EditText)findViewById(R.id.yBox);
```

```
btn1 = (Button)findViewById(R.id.btn1);
btn1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        try {
            Toast myToast = Toast.makeText(
                getApplicationContext(),
                "Saludos amigos \n Hasta la vista",
                Toast.LENGTH_LONG);
            myToast.setGravity(Gravity.CENTER,
                Integer.valueOf(xBox.getText().toString()),
                Integer.valueOf(yBox.getText().toString()) );
            myToast.show();

        } catch (NumberFormatException e) {
            Toast.makeText(getApplicationContext(),
                e.getMessage(),
                Toast.LENGTH_LONG).show();
        }
    } // onClick
}); // listener
}
}
```

MainActivity.java

```
package com.example.chapter11;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    Button btnGo;
    EditText txtMsg;
    String msg;
    Button b2;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        txtMsg = findViewById(R.id.txtMsg);
        btnGo = findViewById(R.id.btnGo);
        btnGo.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) { AlertDialog
                dialBox = createDialogBox();
```

```

        dialBox.show();
        txtMsg.setText("I am here! ");
    }
});

b2 = findViewById(R.id.b2); b2.setOnClickListener(new
View.OnClickListener() {
    String msg2 = "Hello! how are you doing today?";
    @Override
    public void onClick(View view) {

Toast.makeText(getApplicationContext(),msg2,Toast.LENGTH_LONG).show();

    }
});

Button btnToast = findViewById(R.id.btnToast);
btnToast.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        startActivity(new Intent(getApplicationContext(),customtoast.class));
    }
});

}

private AlertDialog createDialogBox() {
    AlertDialog myQuittingDialogBox =
        new AlertDialog.Builder(this)
//set message, title, and icon

```

```

        .setTitle("Terminator")

        .setMessage("Are you sure that you want to quit?")

        //setIcon(R.drawable.ic_menu_end_conversation)

//set three option buttons

        .setPositiveButton("Yes", new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int whichButton) {
                msg = "YES " + Integer.toString(whichButton);
                txtMsg.setText(msg);
            }
        })//setPositiveButton

        .setNeutralButton("Cancel",new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int whichButton) {
//whatever should be done when answering "CANCEL" goes here msg =
                "CANCEL " + Integer.toString(whichButton);
                txtMsg.setText(msg);
            }//OnClick
        })//setNeutralButton

        .setNegativeButton("NO", new DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int whichButton) {
//whatever should be done when answering "NO" goes here msg =
                "NO " + Integer.toString(whichButton);
                txtMsg.setText(msg);
            }
        })//setNegativeButton

        .create();

        return myQuittingDialogBox;
    }

```

```
}
```

XML layouts:

activity_customtoast.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:id="@+id/myTableLayout"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#ff0000ff"
    android:orientation="vertical"
    android:stretchColumns="1,2"

    tools:context=".customtoast">

    <TableRow
        android:layout_height="match_parent"
        android:layout_width="match_parent"
        android:orientation="horizontal"
        >

        <TextView
            android:id="@+id/myCaption"
```



```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:background="#ff009999"
        android:text="Testing Toast - Gravity.CENTER 320x480 pixels"
        android:gravity="center"
        android:layout_span="2"

    />
</TableRow>
<TableRow
    android:id="@+id/myRow1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000ff"
    android:padding="10px"
    android:orientation="horizontal"
    >
    <TextView
        android:id="@+id/xLabel"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="X offset: " android:textSize="18sp"
    />
    <EditText
        android:id="@+id/xBox"
        android:layout_height="wrap_content"
        android:layout_width="wrap_content"
```

```
        android:textSize="18sp"
        android:text="0"
    />
```

```
</TableRow>
```

```
<TableRow
```

```
    android:id="@+id/myRow2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:background="#ff0000ff"
    android:padding="10px"
    android:orientation="horizontal"
```

```
>
```

```
<TextView
```

```
    android:id="@+id/yLabel"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Y offset: " android:textSize="18sp"
    />
```

```
<EditText
```

```
    android:id="@+id/yBox"
    android:layout_height="wrap_content"
    android:layout_width="wrap_content"
    android:textSize="18sp" android:text="0"
    />
```

```
</TableRow>
```

```
<TableRow
```

```
    android:id="@+id/myRow3"
```

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

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

```
    android:background="#ff0000ff"
```

```
    android:padding="10px"
```

```
    android:orientation="horizontal"
```

```
>
```

```
<Button android:id="@+id/btn1"
```

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

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

```
    Show Toast " " android:layout_span="2"
```

```
>
```

```
</Button>
```

```
</TableRow>
```

```
</TableLayout>
```

activity_main.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:layout_width="match_parent"
    android:orientation="horizontal"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
```

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

```
<EditText
    android:hint="click the go button"
    android:id="@+id/txtMsg"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_toRightOf="@+id/btnGo"
    >
</EditText>
```

```
<Button android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/b2" android:text="show
    toast message"
```

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

    />

    <Button android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Customized toast"
        android:id="@+id/btnToast"
        android:layout_below="@id/b2"
        android:layout_marginTop="100sp"
    />

</RelativeLayout>
```

Screenshots:



