

# **HW4:**

## **Multiple Layouts**

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# Overview:

Create an app that showcases different types of layouts:

- In the main activity, add three buttons
- Button-1: on click, it should start another activity with a linear layout as shown
- Button-2: on click, it should start another activity with a table layout as shown
- Button-3: on click, it should start another activity with a relative layout as shown

## Method:

### Main Activity:

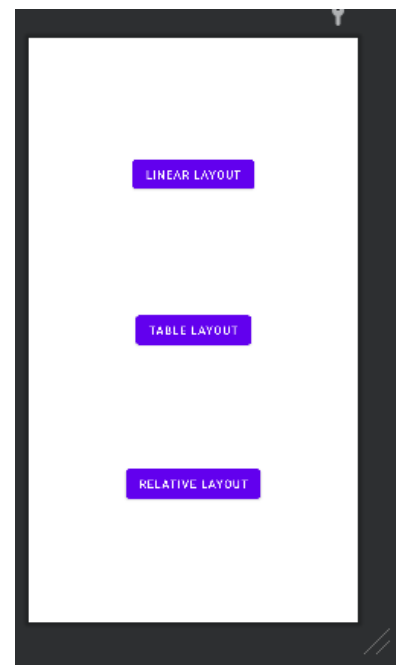
Main activity contains 3 buttons all wired to start new activities that will showcase their respective layout:

```
Button btnOpenTableLayout, btnOpenRelativeLayout, btnOpenLinearLayout;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    btnOpenLinearLayout = findViewById(R.id.buttonLinearLayout);
    btnOpenRelativeLayout = findViewById(R.id.buttonRelativeLayout);
    btnOpenTableLayout = findViewById(R.id.buttonTableLayout);

    btnOpenTableLayout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(getApplicationContext(), TableLayoutActivity.class);
            startActivity(intent);
        }
    });

    btnOpenRelativeLayout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(getApplicationContext(), RelativeLayoutActivity.class);
            startActivity(intent);
        }
    });

    btnOpenLinearLayout.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Intent intent = new Intent(getApplicationContext(), LinearLayoutActivity.class);
            startActivity(intent);
        }
    });
}
```



# TableLayoutActivity:

Bare code in the activity will set the content view to the activity\_tab\_layout in the xml file which has the Formatted Layout code.

```
<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"
    tools:context=".TableLayoutActivity">

    <TableRow>
        <TextView
            android:text="User Name:"
            android:width="120dp"
            />
        <EditText
            android:id="@+id/txtUserName"
            android:width="200dp" />
    </TableRow>
    <TableRow>
        <TextView
            android:text="Password:"
            />
        <EditText
            android:id="@+id/txtPassword"
            android:inputType="textPassword"
            />
    </TableRow>
    <TableRow>
        <TextView />
        <CheckBox
            android:id="@+id/chkRememberPassword"
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:text="Remember Password"
            />
    </TableRow>
    <TableRow>
        <Button
            android:id="@+id/buttonSignIn"
            android:text="Log In" />
    </TableRow>
</TableLayout>
```

```
public class TableLayoutActivity extends AppCompatActivity {

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

## RelativeLayoutActivity:

Similarly bare, this activity is linked to a layout file this time it uses a relative Layout Format with a mockup.

```
<?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"
    android:orientation="vertical"
    tools:context=".RelativeLayoutActivity">
    <TextView
        android:id="@+id/lblComments"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Comments"
        android:layout_alignParentTop="true"
        android:layout_alignParentStart="true" />
    <EditText
        android:id="@+id/txtComments"
        android:layout_width="fill_parent"
        android:layout_height="100dp"
        android:textSize="18sp"
        android:layout_alignStart="@+id/lblComments"
        android:layout_below="@+id/lblComments"
        android:layout_centerHorizontal="true" />
    <Button
        android:id="@+id/btnSave"
        android:layout_width="125dp"
        android:layout_height="wrap_content"
        android:text="Save"
        android:layout_below="@+id/txtComments"
        android:layout_alignEnd="@+id/txtComments" />
    <Button
        android:id="@+id/btnCancel"
        android:layout_width="124dp"
        android:layout_height="wrap_content"
        android:text="Cancel"
        android:layout_below="@+id/txtComments"
        android:layout_alignStart="@+id/txtComments" />
</RelativeLayout>
```

# ActivityLinearLayout

Also similarly bare, This one has a Linear layout.

```
<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=".LinearLayoutActivity">
    <Button
        android:layout_width="160dp"
        android:layout_height="80dp"
        android:text="Button"
        android:layout_gravity="left"
        android:layout_weight="1" />
    <Button
        android:layout_width="160dp"
        android:layout_height="80dp"
        android:text="Button"
        android:layout_gravity="center"
        android:layout_weight="2" />
    <Button
        android:layout_width="160dp"
        android:layout_height="80dp"
        android:text="Button"
        android:layout_gravity="right"
        android:layout_weight="3" />
</LinearLayout>
```

## Result:

The Application Allows the User to view Multiple different Layouts with the touch of their respective buttons. The back button will navigate them to the original activity.

