LAB: 04

EXPLORE ANDROID WIDGET OR CONTROLS TOOLBOX

View

Views are the base class for all visual interface elements (commonly known as controls or widgets). All UI controls, including the layout classes, are derived from View. Android provides several common UI controls, widgets, and Layout Managers.

Android supplies a toolbox of standard Views to help you create your UIs. By using these controls, you can simplify your development and provide consistency between applications.

- **TextView** — A standard read-only text label that supports multiline display, string formatting, and automatic word wrapping.
- **EditText** — An editable text entry box that accepts multiline entry, word-wrapping, and hint text.
- **ListView** — A View Group that creates and manages a vertical list of Views, displaying them as rows within the list. The simplest List View displays the toString value of each object in an array, using a Text View for each item.
- **Button** — A standard push button.
- **CheckBox** — A two-state button represented by a checked or unchecked box
- **RadioButton** — A two-state grouped button. A group of these presents the user with a number of possible options, of which only one can be enabled at a time.
- **ToggleButton** — A two-state button that can be used as an alternative to a check box. It's particularly appropriate where pressing the button will initiate an action as well as changing a state (such as when turning something on or off)
- **VideoView** — Handles all state management and display Surface configuration for playing videos more simply from within your Activity.

Android also supports several more advanced View implementations, including date-time pickers, auto-complete input boxes, maps, galleries, and tab sheets. For a more comprehensive list of the available widgets, head to

Attributes:

Let's go over some of the attributes that you have used to configure your widgets.

- **android:layout_width / android:layout_height** match_parent view will be as big as its parent. wrap_content view will be as big as its contents require.

- **android:orientation**
  Vertical –column representation.
  Horizontal – row representation.
- **android:text • android:id**
  each control contains unique id with prefix "@+id"
- **android:padding/ android:margin**
  Margin attributes are layout parameters. They determine the distance between widget
  Padding, on the other hand, is not a layout parameter.

The **android:padding** attribute tells the widget how much bigger than its contents it should draw itself.

Let's try:

```
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"     tools:context=".MainActivity">

   <TextView
      android:id="@+id/txtsubject"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginTop="60dp"        android:text="Date
of Birth"
      app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/txtcity" />

   <TextView
      android:id="@+id/txtname"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="8dp"        android:text="Name"
      app:layout_constraintBaseline_toBaselineOf="@+id/edtName"
app:layout_constraintStart_toStartOf="parent" />
```

```
    <TextView
        android:id="@+id/txtemail"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="4dp"        android:text="Email"
        app:layout_constraintBaseline_toBaselineOf="@+id/edtEmail"
app:layout_constraintStart_toStartOf="parent" />

    <TextView
        android:id="@+id/txtgender"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="8dp"
android:layout_marginTop="52dp"        android:text="Gender"
        app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/edtEmail" />

    <TextView
        android:id="@+id/txtcity"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="16dp"
android:layout_marginTop="104dp"
        android:text="City"
        app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toBottomOf="@+id/txtgender"  />

    <EditText
android:id="@+id/edtName"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="23dp"
android:layout_marginTop="57dp"
android:ems="10"
        android:inputType="textPersonName"
app:layout_constraintStart_toEndOf="@+id/txtname"
        app:layout_constraintTop_toTopOf="parent"  />

    <EditText
        android:id="@+id/edtEmail"
android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
android:layout_marginTop="15dp"        android:ems="10"
      android:inputType="textEmailAddress"
app:layout_constraintStart_toStartOf="@+id/edtName"
      app:layout_constraintTop_toBottomOf="@+id/edtName"  />

   <RadioGroup
      android:id="@+id/radioGroup"
android:layout_width="163dp"
android:layout_height="wrap_content"
android:layout_marginTop="88dp"
app:layout_constraintStart_toStartOf="@+id/edtEmail"
      app:layout_constraintTop_toTopOf="@+id/edtEmail">

      <RadioButton
android:id="@+id/radioButton2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Male"
tools:layout_editor_absoluteX="83dp"
         tools:layout_editor_absoluteY="205dp" />

      <RadioButton
android:id="@+id/radioButton3"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Female"
tools:layout_editor_absoluteX="166dp"
tools:layout_editor_absoluteY="205dp" />
   </RadioGroup>

   <Spinner       android:id="@+id/cityspinner"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginStart="36dp"
android:layout_marginTop="60dp"
android:entries="@array/city"
app:layout_constraintStart_toEndOf="@+id/txtcity"
app:layout_constraintTop_toBottomOf="@+id/radioGroup"
      tools:ignore="MissingConstraints"  />
```

```
    <DatePicker
        android:id="@+id/dtpicker"
android:layout_width="wrap_content"
android:layout_height="210dp"
android:layout_marginStart="104dp"
android:layout_marginTop="328dp"
android:calendarViewShown="false"
android:datePickerMode="spinner"
android:minDate="01/01/2000"        android:spinnersShown="true"
app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"  />

    <Button
        android:id="@+id/button"
android:layout_width="match_parent"
android:layout_height="47dp" android:layout_marginStart="16dp"
android:onClick="submit" android:text="Submit"
app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintStart_toStartOf="parent" />

</android.support.constraint.ConstraintLayout>
```

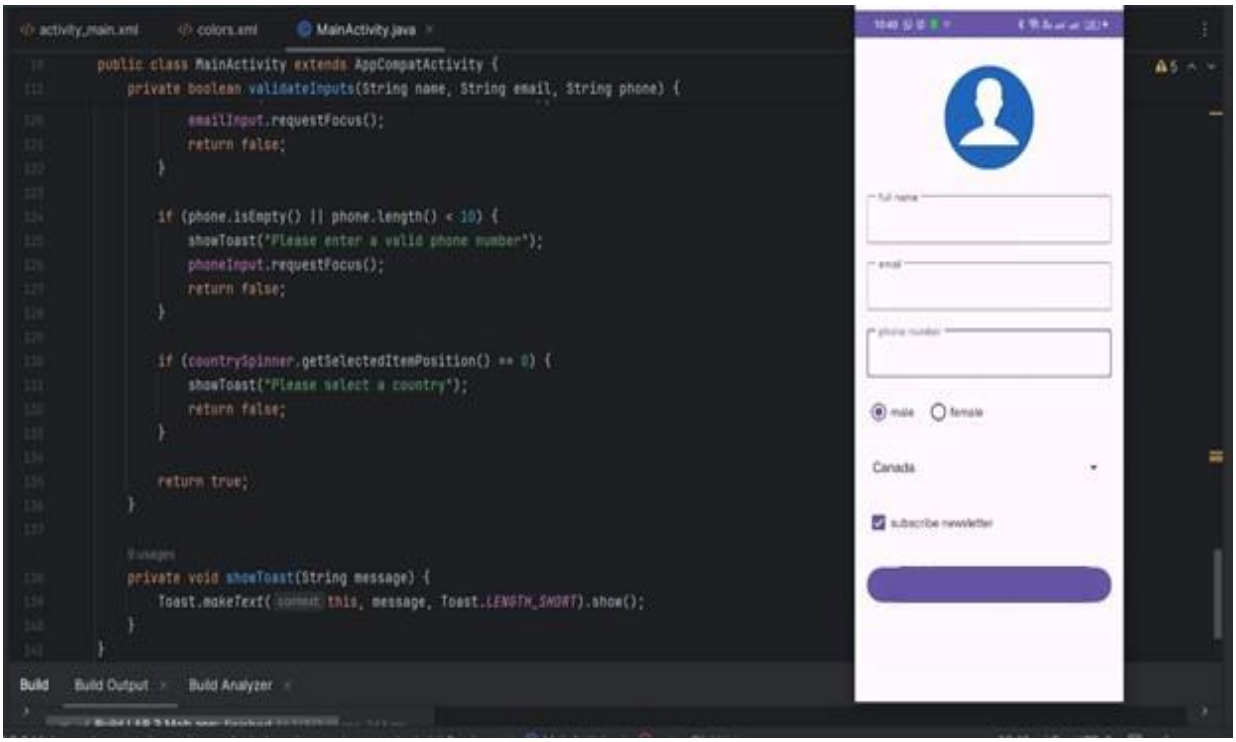
//MainActivity.Java

```
package com.example.controls_project;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle; import
android.view.View; import
android.widget.CheckBox; import
android.widget.DatePicker; import
android.widget.EditText; import
android.widget.RadioButton; import
android.widget.RadioGroup; import
android.widget.Spinner;
import android.widget.Toast;

import java.util.Date;

public class MainActivity extends AppCompatActivity {

    EditText name,email;
```

```
    RadioGroup gender;
   Spinner city;
   DatePicker dob;

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

       name=(EditText) findViewById(R.id.edtName);
email=(EditText) findViewById(R.id.edtEmail);
gender=(RadioGroup) findViewById(R.id.radioGroup);
city=(Spinner) findViewById(R.id.cityspinner);
dob=(DatePicker)findViewById(R.id.dtpicker);
   }
   public void submit(View v)
   {
String username=name.getText().toString();
String useremail=email.getText().toString();

int g=gender.getCheckedRadioButtonId();

RadioButton rd=(RadioButton) findViewById(g);

String usercity=city.getSelectedItem().toString();

String dt=dob.getDayOfMonth()+"-"+(dob.getMonth()+1)+"-"+dob.getYear();

       Toast.makeText(this,"Name: "+username+" "+" Email: "+useremail+" City:
"+usercity+" Gender: "+rd.getText()+" Date_of_Birth:
"+dt,Toast.LENGTH_LONG).show();


   }

}
```

Lab Task

1. Build interactive user details page and display information in Toast.



2. Build customer feedback activity, necessary control should be added in activity.