

## **Practical – 1 : Develop Android App Which Display Hello World.**

**Code:**

### **Activity\_main.xml**

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

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

### **MainActivity.java**

```
package com.example.hello_world;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

**Output:**



Hello World!

**Practical – 2 : Develop android app in which click on button navigate to second landscape orientation activity.**

#### **activity\_main.xml**

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

    <TextView
        android:id="@+id/tv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="First Activity"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/nextactivity"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Second Activity"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/tv" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

#### **Activity\_second1.xml**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".SecondActivity1">

</androidx.constraintlayout.widget.ConstraintLayout>
```

#### **Mainactivity.java**

```
package com.example.new_activity_button;

import androidx.appcompat.app.AppCompatActivity;

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

```

public class MainActivity extends AppCompatActivity {

    private Button nextactivity;

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

        nextactivity=(Button)findViewById(R.id.nextactivity);
        nextactivity.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new
Intent(MainActivity.this,SecondActivity1.class);
                startActivity(i);
            }
        });
    }
}

```

### **secondactivity1.java**

```

package com.example.new_activity_button;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class SecondActivity1 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_second1);
    }
}

```

### **androidmanifest.xml**

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.new_activity_button">

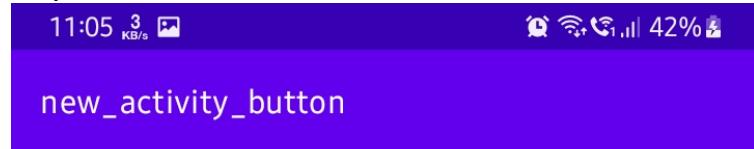
    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.New_activity_button">
        <activity android:name=".SecondActivity1"
            android:screenOrientation="landscape"></activity>
        <activity android:name=".MainActivity">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>

```

```
    </intent-filter>
</activity>
</application>

</manifest>
```

**Output:**



First Activity

SECOND ACTIVITY



**Practical - 3 : Make Android app demonstrate use of toast.**

**Activity\_main.xml**

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

    <EditText
        android:id="@+id/n1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintBottom_toTopOf="@+id/n2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.572"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.844" />

    <EditText
        android:id="@+id/n2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="352dp"
        android:ems="10"
        android:inputType="number"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.572"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/add"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="ADD"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.552"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/n2"
        app:layout_constraintVertical_bias="0.297" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

**MainActivity.java**

```
package com.example.toast;

import androidx.appcompat.app.AppCompatActivity;

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 {
    private EditText n1;
    private EditText n2;
    private Button add;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        n1=(EditText)findViewById(R.id.n1);
        n2=(EditText)findViewById(R.id.n2);
        add=(Button)findViewById(R.id.add);
        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String nul=n1.getText().toString();
                String nu2=n2.getText().toString();
                int in1=Integer.parseInt(nul);
                int in2=Integer.parseInt(nu2);
                int ans=in1+in2;
                String sans=String.valueOf(ans);

                Toast.makeText(getApplicationContext(),sans,Toast.LENGTH_SHORT).show();
            }
        });
    }
}
Output:
```



28

---

245

---

ADD

273

#### **Practical – 4 : Make Android App which Demonstrate use of toggle.**

**Code:**

##### **Activity\_main.xml**

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

    <ToggleButton
        android:id="@+id/toggleButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="96dp"
        android:text="ToggleButton"
        android:textOff="off"
        android:textOn="on"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.172" />

    <ToggleButton
        android:id="@+id/toggleButton2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="ToggleButton"
        android:textOff="off"
        android:textOn="on"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.529"
        app:layout_constraintStart_toEndOf="@+id/toggleButton"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.172" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Button"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.517"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.524" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

##### **mainActivity.java**

```
package com.example.toggle;

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

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

public class MainActivity extends AppCompatActivity {
    ToggleButton toggleButton,toggleButton2;
    Button button;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        toggleButton=(ToggleButton)findViewById(R.id.toggleButton);
        toggleButton2=(ToggleButton)findViewById(R.id.toggleButton2);
        button=(Button)findViewById(R.id.button);

        //Performing action on button click
        button.setOnClickListener(new View.OnClickListener() {

            @Override
            public void onClick(View view) {
                StringBuilder result = new StringBuilder();
                result.append("ToggleButton1 :");
                result.append(toggleButton.getText());
                result.append("\nToggleButton2 :");
                result.append(toggleButton2.getText());
                //Displaying the message in toast
                Toast.makeText(getApplicationContext(),
                result.toString(),Toast.LENGTH_LONG).show();
            }
        });
    }
}
Output:
```



BUTTON

ToggleButton1 : on  
ToggleButton2 : off



## Practical – 5 : Make Android App which Demonstrate use of checkbox.

### Activity\_main.xml

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

    <CheckBox
        android:id="@+id/checkBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="4dp"
        android:layout_marginTop="148dp"
        android:text="Pizaa"
        app:layout_constraintStart_toStartOf="@+id/checkBox2"
        app:layout_constraintTop_toTopOf="parent" />

    <CheckBox
        android:id="@+id/checkBox2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:text="Dhosa"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.533"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/checkBox" />

    <CheckBox
        android:id="@+id/checkBox3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="32dp"
        android:text="Burger"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.537"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/checkBox2" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Order"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.541"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/checkBox3"
        app:layout_constraintVertical_bias="0.413" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

### MainActivity.java

```
package com.example.checkbox;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    CheckBox pizza,dhosa,burger;
    Button button;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        pizza= (CheckBox) findViewById(R.id.checkBox);
        dhosa= (CheckBox) findViewById(R.id.checkBox2);
        burger= (CheckBox) findViewById(R.id.checkBox3);
        button=(Button)findViewById(R.id.button);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int totalamount=0;
                StringBuilder result=new StringBuilder();
                result.append("Selected Items:");
                if(pizza.isChecked()){
                    result.append("\nPizza 200Rs");
                    totalamount+=200;
                }
                if(dhosa.isChecked()){
                    result.append("\nDhosa 150Rs");
                    totalamount+=150;
                }
                if(burger.isChecked()){
                    result.append("\nBurger 120Rs");
                    totalamount+=120;
                }
                result.append("\nTotal: "+totalamount+"Rs");
                //Displaying the message on the toast
                Toast.makeText(getApplicationContext(), result.toString(),
                        Toast.LENGTH_LONG).show();
            }
        });
    }
}
```

**Output:**

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42%

checkbox

Pizaa

Dhosa

Burger

ORDER

Selected Items:  
Dhosa 150Rs  
Burger 120Rs  
Total: 270Rs



## Practical – 6 : Make android app which demonstrate use of radio button.

### Activity\_main.xml

```
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <TextView
        android:id="@+id/textView1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:gravity="center_horizontal"
        android:textSize="22dp"
        android:text="Single Radio Buttons" />

    <!-- Default RadioButtons -->

    <RadioButton
        android:id="@+id radioButton1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:text="Radio Button 1"
        android:layout_marginTop="20dp"

        android:textSize="20dp" />
    <RadioButton
        android:id="@+id radioButton2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Radio Button 2"
        android:layout_marginTop="10dp"

        android:textSize="20dp" />

    <View
        android:layout_width="fill_parent"
        android:layout_height="1dp"
        android:layout_marginTop="20dp"
        android:background="#B8B894" />

    <TextView
        android:id="@+id textView2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:gravity="center_horizontal"
        android:textSize="22dp"
        android:text="Radio button inside RadioGroup" />

    <!-- Customized RadioButtons -->
```

```

<RadioGroup
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/radioGroup">

    <RadioButton
        android:id="@+id/radioMale"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text=" Male"
        android:layout_marginTop="10dp"
        android:checked="false"
        android:textSize="20dp" />

    <RadioButton
        android:id="@+id/radioFemale"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text=" Female"
        android:layout_marginTop="20dp"
        android:checked="false"

        android:textSize="20dp" />
</RadioGroup>

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center_horizontal"
    android:onClick="onclickbuttonMethod"
    android:text="Show Selected" />

</LinearLayout>

```

### MainActivity.java

```

package com.example.radiobutton;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    Button button;
    RadioButton genderRadioButton;
    RadioGroup radioGroup;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        radioGroup=(RadioGroup)findViewById(R.id.radioGroup);
    }
}

```

```
public void onclickbuttonMethod(View v) {  
    int selectedId = radioGroup.getCheckedRadioButtonId();  
    genderradioButton = (RadioButton) findViewById(selectedId);  
    if(selectedId== -1){  
        Toast.makeText(MainActivity.this,"Nothing selected",  
Toast.LENGTH_SHORT).show();  
    }  
    else{  
        Toast.makeText(MainActivity.this,genderradioButton.getText(),  
Toast.LENGTH_SHORT).show();  
    }  
}  
}
```

**Output:**



## Single Radio Buttons

- Radio Button 1
  - Radio Button 2
- 

## Radio button inside RadioGroup

- Male
- Female

**SHOW SELECTED**

Male



## Practical – 7 : Make android app which demonstrate use of spinner.

### Activity\_main.xml

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

    <Spinner
        android:id="@+id/spinner"
        android:layout_width="409dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="337dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

### MainActivity.java

```
package com.example.spinner;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.Spinner;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        String[] arraySpinner = new String[] {
            "India", "USA", "China", "Japan", "Other"
        };
        Spinner s = (Spinner) findViewById(R.id.spinner);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
            android.R.layout.simple_spinner_item, arraySpinner);

        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        s.setAdapter(adapter);
    }
}
```

**Output:**

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42%

spinner

India

USA

China

Japan

Other



## Practical – 8 : Make Android App which Demonstrate use of alert box.

### Activity\_main.xml

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

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/button"
        android:text="Close app"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

### MainActivity.java

```
package com.example.alertbox;

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

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

public class MainActivity extends AppCompatActivity {

    Button closeButton;
    AlertDialog.Builder builder;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        closeButton = (Button) findViewById(R.id.button);
        builder = new AlertDialog.Builder(this);
        closeButton.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {

                //Uncomment the below code to Set the message and title
                //from the strings.xml file
                builder.setMessage(R.string.dialog_message)
                .setTitle(R.string.dialog_title);

                //Setting message manually and performing action on button
                //click
                builder.setMessage("Do you want to close this application");
            }
        });
    }
}
```

```

    ?")
        .setCancelable(false)
        .setPositiveButton("Yes", new
DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int
id) {
                finish();
                Toast.makeText(getApplicationContext(),"you
choose yes action for alertbox",
                    Toast.LENGTH_SHORT).show();
            }
        })
        .setNegativeButton("No", new
DialogInterface.OnClickListener() {
            public void onClick(DialogInterface dialog, int
id) {
                // Action for 'NO' Button
                dialog.cancel();
                Toast.makeText(getApplicationContext(),"you
choose no action for alertbox",
                    Toast.LENGTH_SHORT).show();
            }
        });
    //Creating dialog box
    AlertDialog alert = builder.create();
    //Setting the title manually
    alert.setTitle("AlertDialogExample");
    alert.show();
}
}
}

```

### **strings.xml**

```

<resources>
    <string name="app_name">Alertbox</string>
    <string name="dialog_message">Welcome to Alert Dialog</string>
    <string name="dialog_title">Javatpoint Alert Dialog</string>
</resources>

```

### **Output:**

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27%

## Alertbox

AlertDialogExample

Do you want to close this application ?

NO YES



CLOSE APP



## Practical – 9 : Make Android App which Demonstrate use of time picker.

### Activity\_main.xml

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

    <TextView
        android:id="@+id/textView1"
        android:layout_width="255dp"
        android:layout_height="70dp"
        android:layout_above="@+id/button1"
        android:layout_alignParentStart="true"
        android:layout_alignParentLeft="true"
        android:layout_marginTop="60dp"
        android:text="Time"
        android:textSize="25dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.568"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="66dp"
        android:text="Change Time"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/timePicker" />

    <TimePicker
        android:id="@+id/timePicker"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_above="@+id/textView1"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="140dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

### MainActivity.java

```
package com.example.datepicker;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
```

```
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    DatePicker picker;
    Button displayDate;
    TextView textView1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        textView1=(TextView)findViewById(R.id.textView1);
        picker=(DatePicker)findViewById(R.id.datePicker);
        displayDate=(Button)findViewById(R.id.button1);

        textView1.setText("Current Date: "+getCurrentDate());

        displayDate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

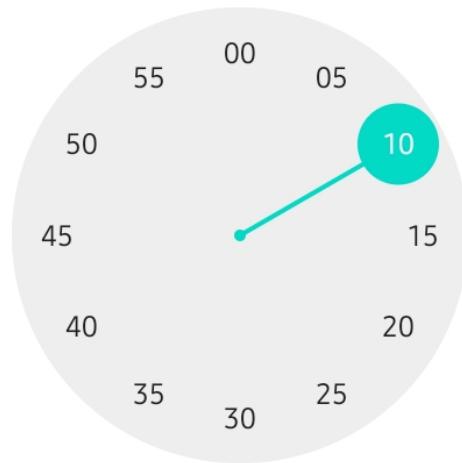
                textView1.setText("Change Date: "+getCurrentDate());
            }
        });
    }
    public String getCurrentDate(){
        StringBuilder builder=new StringBuilder();
        builder.append((picker.getMonth() + 1)+"/");//month is 0 based
        builder.append(picker.getDayOfMonth()+"/");
        builder.append(picker.getYear());
        return builder.toString();
    }
}
```

**Output:**



Current Time: 7:10

07:10



CHANGE TIME

## Practical – 10 : Make Android App which Demonstrate use of date picker.

### Activity\_main.xml

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

    <TextView
        android:id="@+id/textView1"
        android:layout_width="305dp"
        android:layout_height="76dp"
        android:layout_above="@+id/button1"
        android:layout_alignParentStart="true"
        android:layout_alignParentLeft="true"
        android:layout_marginTop="16dp"
        android:layout_marginBottom="10dp"
        android:text=""
        android:textSize="25dp"
        app:layout_constraintBottom_toTopOf="@+id/datePicker"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.65"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="131dp"
        android:text="Change Date"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/datePicker" />

    <DatePicker
        android:id="@+id/datePicker"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_above="@+id/textView1"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="45dp"
        app:layout_constraintBottom_toTopOf="@+id/button1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView1" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

### MainActivity.java

```

package com.example.datepicker;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    DatePicker picker;
    Button displayDate;
    TextView textView1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        textView1=(TextView)findViewById(R.id.textView1);
        picker=(DatePicker)findViewById(R.id.datePicker);
        displayDate=(Button)findViewById(R.id.button1);

        textView1.setText("Current Date: "+getCurrentDate());

        displayDate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                textView1.setText("Change Date: "+getCurrentDate());
            }
        });
    }
    public String getCurrentDate(){
        StringBuilder builder=new StringBuilder();
        builder.append((picker.getMonth() + 1)+"/");
        //month is 0 based
        builder.append(picker.getDayOfMonth()+"/");
        builder.append(picker.getYear());
        return builder.toString();
    }
}

```

**Output:**



Change Date: 7/17/2021



< July 2021 >

M T W T F S S

5 6 7 8 9 10 11

12 13 14 15 16 17 18

19 20 21 22 23 24 25

26 27 28 29 30 31

CHANGE DATE

## Practical – 11 : Make Android App for registration form.

### Activity\_main.xml

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

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="78dp"
        android:layout_marginBottom="20dp"
        android:ems="10"
        android:hint="Your Full Name"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/spinner"
        app:layout_constraintStart_toStartOf="@+id/spinner"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editTextTextPersonName2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="22dp"
        android:ems="10"
        android:hint="Username"
        android:inputType="textPersonName"
        app:layout_constraintBottom_toTopOf="@+id/editTextTextPassword"
        app:layout_constraintStart_toStartOf="@+id/spinner"
        app:layout_constraintTop_toBottomOf="@+id/spinner" />

    <EditText
        android:id="@+id/editTextTextPassword"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="42dp"
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword"
        app:layout_constraintBottom_toTopOf="@+id/editTextPhone"
        app:layout_constraintStart_toStartOf="@+id/editTextTextPersonName2"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName2"
    />

    <EditText
        android:id="@+id/editTextPhone"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="44dp"
        android:ems="10"
        android:hint="Mobile No."
        android:inputType="phone"
        app:layout_constraintBottom_toTopOf="@+id/editTextTextEmailAddress"
        app:layout_constraintStart_toStartOf="@+id/editTextTextPassword"
```

```

        app:layout_constraintTop_toBottomOf="@+id/editTextTextPassword" />

<EditText
    android:id="@+id/editTextTextEmailAddress"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="4dp"
    android:layout_marginBottom="45dp"
    android:ems="10"
    android:hint="Email"
    android:inputType="textEmailAddress"
    app:layout_constraintBottom_toTopOf="@+id/checkBox"
    app:layout_constraintStart_toStartOf="@+id/editTextPhone"
    app:layout_constraintTop_toBottomOf="@+id/editTextPhone" />

<CheckBox
    android:id="@+id/checkBox"
    android:layout_width="273dp"
    android:layout_height="31dp"
    android:layout_marginBottom="67dp"
    android:text="I accept terms and conditions"
    app:layout_constraintBottom_toTopOf="@+id/button"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.746"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextTextEmailAddress"
/>

<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="35dp"
    android:text="Register"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/checkBox" />

<Spinner
    android:id="@+id/spinner"
    android:layout_width="214dp"
    android:layout_height="0dp"
    android:layout_marginBottom="19dp"
    app:layout_constraintBottom_toTopOf="@+id/editTextTextPersonName2"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName"
/>
</androidx.constraintlayout.widget.ConstraintLayout>

```

## MainActivity.java

```

package com.example.registration;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.Spinner;

```

```
public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        String[] arraySpinner = new String[] {
            "Male", "Female"
        };
        Spinner s = (Spinner) findViewById(R.id.spinner);
        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
            android.R.layout.simple_spinner_item, arraySpinner);

        adapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        s.setAdapter(adapter);
    }
}
```

**Output:**

11:07 0 KB/s

42%

## registration

Pavan Gabani

Male



PG

.....

7283889206

pavan.gabani@gmail.com

I accept terms and conditions

REGISTER

11:06 0 KB/s

42%

## registration

Your Full Name

Male ▾

Username

Password

Mobile No.

Email

I accept terms and conditions

REGISTER

Practical - 12 : Write a program to demonstrate use of Linear Layout.

#### Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="fill_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity" >

    <Button
        android:id="@+id/button2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Button2" />

    <Button
        android:id="@+id/button1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Button1" />

    <Button
        android:id="@+id/button3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Button3" />

</LinearLayout>
```

#### MainActivity.java

```
package com.example.linear_layout;

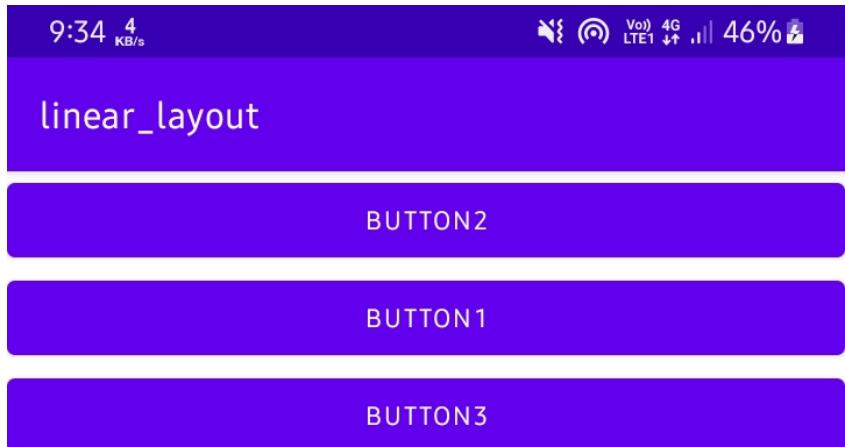
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

#### Output



Practical - 13 : Write a program to demonstrate use of Relative Layout.

#### 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:layout_height="match_parent"
    android:id="@+id/rl"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tv1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_above="@+id/tv2"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_marginStart="60dp"
        android:layout_marginTop="82dp"
        android:layout_marginEnd="292dp"
        android:layout_marginBottom="189dp"
        android:text="First" />

    <TextView
        android:id="@+id/tv2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_above="@+id/button"

        android:layout_alignParentStart="true"
        android:layout_alignParentEnd="true"
        android:layout_marginStart="151dp"
        android:layout_marginTop="101dp"
        android:layout_marginEnd="202dp"
        android:layout_marginBottom="174dp"
        android:text="Second" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="169dp"
        android:layout_marginBottom="390dp"
        android:text="Button" />

</RelativeLayout>
```

#### MainActivity.java

```
package com.example.linear_layout;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
```

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

Output



Second

BUTTON

Practical - 14 : Write a program to demonstrate use of Table Layout.

#### Activity\_main.xml

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

    <TableLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent">

        <TableRow
            android:layout_width="match_parent"
            android:layout_height="match_parent" >
            <TextView android:text="Row 1 Text 1"
                android:layout_margin="8dp"
                android:layout_height="wrap_content"
                android:layout_width="match_parent"
                android:textColor="@color/purple_500"/>
            <TextView android:text="Row 1 Text 2"
                android:textColor="@color/teal_200"
                android:layout_margin="5dp"
                android:layout_height="wrap_content"
                android:layout_width="match_parent"/>
        </TableRow>

        <TableRow
            android:layout_width="match_parent"
            android:layout_height="121dp"

            android:layout_margin="20dp">

            <Button
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:text="BUTTON" />
        </TableRow>

    </TableLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

#### MainActivity.java

```
package com.example.linear_layout;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
```

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

Output



Row 1 Text 1 Row 1 Text 2

BUTTON

Practical -15 :Write a program to demonstrate use of Absolute Layout.

#### Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout 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:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Absolute Layout"
        android:layout_x="100px"
        android:layout_y="100px"
        />
    <Button
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="BUTTON1"
        android:layout_x="10px"
        android:layout_y="361px" />
    <Button
        android:layout_width="100dp"
        android:layout_height="wrap_content"
        android:text="BUTTON2"
        android:layout_x="325px"
        android:layout_y="361px" />
</AbsoluteLayout>
```

#### MainActivity.java

```
package com.example.bsolute_layout;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

Output:



Absolute Layout

BUTTON1

BUTTON2

Practical -16 : Write a program to demonstrate use of Frame Layout.

#### Activity\_main.xml

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

    <FrameLayout
        android:layout_width="408dp"
        android:layout_height="358dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.333"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.404">

        <TextView
            android:id="@+id/textView"
            android:layout_width="312dp"
            android:layout_height="wrap_content"
            android:text="Frame Layout"
            android:textSize="50dp"
            android:layout_gravity="center"/>

        <Button
            android:id="@+id/button3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button"
            android:layout_gravity="center"/>
    </FrameLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

#### MainActivity.java

```
package com.example.frame_layout;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

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

Output:



Frame\_layout

Practical - 17 : Write a program to demonstrate use of List View..

#### Activity\_main.xml

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

    <ListView
        android:id="@+id/listview"
        android:layout_width="416dp"
        android:layout_height="531dp"
        android:layout_marginTop="56dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

#### MainActivity.java

```
package com.example.listview;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        ListView listView;
        TextView textView;
        String[] listItem;

        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        listView=(ListView)findViewById(R.id.listview);
        textView=(TextView)findViewById(R.id.textView);
        listItem = getResources().getStringArray(R.array.tech);

        final ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
            android.R.layout.simple_list_item_1, android.R.id.text1,
        listItem);
        listView.setAdapter(adapter);

        listView.setOnItemClickListener(new
```

```

AdapterView.OnItemClickListener() {
    @Override
    public void onItemClick(AdapterView<?> adapterView, View view,
int position, long l) {
        // TODO Auto-generated method stub
        String value=adapter.getItem(position);
        Toast.makeText(getApplicationContext(),value,
Toast.LENGTH_SHORT).show();
    }
}
string.xml

<resources>
    <string name="app_name">listview</string>
    <string-array name="tech">
        <item>Android</item>
        <item>Java</item>
        <item>Php</item>
        <item>Hadoop</item>
        <item>Sap</item>
        <item>Python</item>
        <item>Ajax</item>
        <item>C++</item>
        <item>Ruby</item>
        <item>Rails</item>
        <item>.Net</item>
        <item>Perl</item>
    </string-array>
</resources>

```

mylist.xml

```

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

<TextView xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Medium Text"
    android:textStyle="bold"
    android:textAppearance="?android:attr/textAppearanceMedium"
    android:layout_marginLeft="10dp"
    android:layout_marginTop="5dp"
    android:padding="2dp"
    android:textColor="#4d4d4d"
    />

```

Output:



Android

---

Java

---

Php

---

Hadoop

---

Sap

---

Python

---

Ajax

---

C++

---

Ruby

---

Rails

---

.Net

Practical - 18 : Write a program demonstrate use of Grid View.

#### Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<GridView xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/gridView1"
    android:numColumns="auto_fit"
    android:gravity="center"
    android:columnWidth="50dp"
    android:stretchMode="columnWidth"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent" >

</GridView>
```

#### MainActivity.java

```
package com.example.gridView;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.GridView;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    GridView gridView;
    static final String[] numbers = new String[] {
        "1", "2", "3", "4", "5",
        "6", "7", "8", "9", "10", };
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        gridView = (GridView) findViewById(R.id.gridView1);

        ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
            android.R.layout.simple_list_item_1, numbers);

        gridView.setAdapter(adapter);

        gridView.setOnItemClickListener(new
        AdapterView.OnItemClickListener() {

            @Override
            public void onItemClick(AdapterView<?> parent, View view, int
            position, long id) {
                Toast.makeText(getApplicationContext(), ((TextView)
            view).getText(), Toast.LENGTH_LONG).show();
            }
        });
    }
}
```

```
    }  
}
```

Output:



1      2      3      4      5      6      7      8

9      10

Practical - 19 : Write a program to demonstrate use of Rating Bar.

#### Activity\_main.xml

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

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="submit"
        android:id="@+id/button"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.615" />
    <RatingBar
        android:id="@+id/ratingBar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

#### MainActivity.java

```
package com.example.ratingbar;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.RatingBar;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    RatingBar ratingbar;
    Button button;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        addListenerOnButtonClick();
    }
    public void addListenerOnButtonClick(){
        ratingbar=(RatingBar)findViewById(R.id.ratingBar);
        button=(Button)findViewById(R.id.button);
        //Performing action on Button Click
    }
}
```

```
button.setOnClickListener(new View.OnClickListener() {  
  
    @Override  
    public void onClick(View arg0) {  
        //Getting the rating and displaying it on the toast  
        String rating=String.valueOf(ratingbar.getRating());  
        Toast.makeText(getApplicationContext(), rating,  
Toast.LENGTH_LONG).show();  
    }  
});  
}
```

Output:



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3.5

Practical – 20 : Write a program to demonstrate use of Web View. .

#### Activity\_main.xml

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

    <WebView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/webView"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintLeft_toLeftOf="parent"
        app:layout_constraintRight_toRightOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

#### MainActivity.java

```
package com.example.webview;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.webkit.WebView;

public class MainActivity extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        WebView mywebview = (WebView) findViewById(R.id.webView);

        mywebview.loadUrl("https://www.google.com/");
    }
}
```

Output:

9:35 49 KB/s

VoLTE 4G LTE1 46%

webview

ALL IMAGES Sign in

# Google

Weather Sports What to watch Restaurants

Google offered in:

हिन्दी बांग्लা ଭେଲଗୁ ମରାଠୀ தமிழ் ગુજરાતી କ୍ଷେତ୍ର  
മലയାଲം ਪੰਜਾਬੀ

India

Settings Privacy Terms



Practical - 21 : Write a program to demonstrate use of SeekBar.

#### Activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <SeekBar
        android:id="@+id/seekBar"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginEnd="8dp"
        android:layout_marginStart="8dp"
        android:layout_marginTop="372dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

#### MainActivity.java

```
package com.example.seekbar;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.widget.SeekBar;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

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

        seekBar=(SeekBar)findViewById(R.id.seekBar);
        seekBar.setOnSeekBarChangeListener(new
        SeekBar.OnSeekBarChangeListener() {
            @Override
            public void onProgressChanged(SeekBar seekBar, int progress,
                                         boolean fromUser) {
                Toast.makeText(getApplicationContext(),"seekbar progress:
"+progress, Toast.LENGTH_SHORT).show();
            }

            @Override
            public void onStartTrackingTouch(SeekBar seekBar) {
                Toast.makeText(getApplicationContext(),"seekbar touch
started!", Toast.LENGTH_SHORT).show();
            }

            @Override
            public void onStopTrackingTouch(SeekBar seekBar) {
```

```
        Toast.makeText(getApplicationContext(), "seekbar touch  
stopped!", Toast.LENGTH_SHORT).show();  
    }  
});  
}  
}
```

Output:

A horizontal seekbar consisting of a thin grey line with a small teal circular slider in the center.

seekbar touch started!