

Practical no:-7

Develop a program to implement TextView and EditText.

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:background="#00ffce"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textview1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Username"
        android:textSize="20dp" />
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="20dp"
        android:layout_marginTop="50dp"
        android:hint="Username"/>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="match_parent"
        android:text="Password"
        android:textSize="30dp"
        android:layout_marginTop="150dp"/>
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="20dp"
        android:layout_marginTop="200dp"
        android:hint="Password"/>
</RelativeLayout>
```

MainActivity.java:-

```
package com.example.textviewedittext;

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);
    }
}

```

AndroidManifest.xml:-

```

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

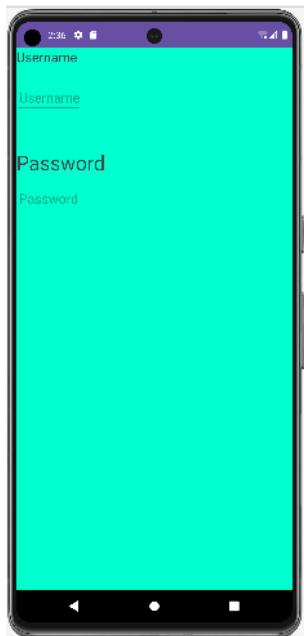
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.TextViewEditText"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>

```

Output:-



Practical no:-8

Develop a program to implement AutoComplete Text View.

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:background="#00ffce"
    tools:context=".MainActivity">

    <AutoCompleteTextView
        android:id="@+id/autol"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="100dp"
        android:layout_marginLeft="100dp"
        android:hint="Enter Branch"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"/>

</LinearLayout>
```

MainActivity.java:-

```
package com.example.autocompletetextview;

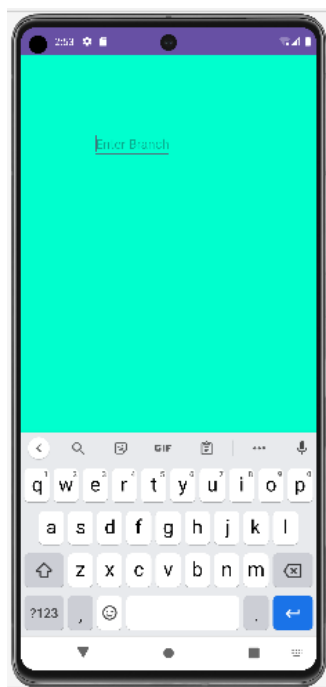
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Context;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.AutoCompleteTextView;
public class MainActivity extends AppCompatActivity {
    private String engineering;
    String[] branch=new String[]{"computer","information
technology","electrical engineering","automobile"};
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        AutoCompleteTextView editText=findViewById(R.id.autol);
        ArrayAdapter<String> adapter=new
        ArrayAdapter<String>(this, android.R.layout.simple_list_item_1,branch);
        editText.setAdapter(adapter);
    }
}
```

```
}  
}
```

AndroidManifest.xml:-

```
<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
    xmlns:tools="http://schemas.android.com/tools">  
  
    <application  
        android:allowBackup="true"  
        android:dataExtractionRules="@xml/data_extraction_rules"  
        android:fullBackupContent="@xml/backup_rules"  
        android:icon="@mipmap/ic_launcher"  
        android:label="@string/app_name"  
        android:roundIcon="@mipmap/ic_launcher_round"  
        android:supportRtl="true"  
        android:theme="@style/Theme.AutoCompleteTextView"  
        tools:targetApi="31">  
        <activity  
            android:name=".MainActivity"  
            android:exported="true">  
            <intent-filter>  
                <action android:name="android.intent.action.MAIN" />  
  
                <category android:name="android.intent.category.LAUNCHER" />  
            </intent-filter>  
        </activity>  
    </application>  
</manifest>
```

Output:-



Practical no:-9

Develop a program to implement Button ImageButton and Toggle button.

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"
    tools:context=".MainActivity"
    android:orientation="vertical"
    android:gravity="center">

    <ImageButton
        android:id="@+id/image"
        android:layout_width="330dp"
        android:layout_height="285dp"
        android:src="@drawable/bluetooth" />

    <ToggleButton
        android:id="@+id/toggleButton"
        android:layout_width="wrap_content"
        android:layout_marginTop="50dp"
        android:layout_height="wrap_content"
        android:checked="true" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:textColor="#00ffce"
        android:textSize="20sp"
        android:textStyle="bold" />

</LinearLayout>
```

MainActivity.java:-

```
package com.example.pract_9;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.CompoundButton;
import android.widget.TextView;
import android.widget.ToggleButton;
public class MainActivity extends AppCompatActivity {
    private ToggleButton toggleButton;
    private TextView textView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        toggleButton = findViewById(R.id.toggleButton);
        textView = findViewById(R.id.textView);
        toggleButton.setOnCheckedChangeListener(new
        CompoundButton.OnCheckedChangeListener()
        {
```

```

        @Override
        public void onCheckedChanged (CompoundButton
CompoundButton,boolean b) {
            if(toggleButton.isChecked()) {
                textView.setText("bluetooth is ON");}
            else {
                textView.setText("bluetooth is OFF");}}
    });
}

```

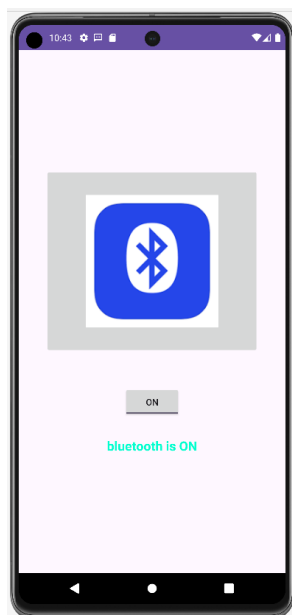
AndroidManifest.xml:-

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">
    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Pract_9"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>

```

Output:-



Practical no:-10

Develop a program to implement AutoComplete Text View.

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:orientation="vertical"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Student Login"
        android:textSize="40dp"
        android:layout_gravity="center"
        android:textColor="#00ffce" />
    <TextView
        android:id="@+id/Name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Name"
        android:textSize="20dp"/>
    <EditText
        android:id="@+id/Name_ET"
        android:layout_width="match_parent"
        android:layout_height="49dp" />
    <TextView
        android:id="@+id/Age"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Age"
        android:textSize="20dp" />
    <EditText
        android:id="@+id/Age_ET"
        android:layout_width="match_parent"
        android:layout_height="49dp" />
    <TextView
        android:id="@+id/Branch"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Branch"
        android:textSize="20dp" />
    <EditText
        android:id="@+id/Branch_ET"
        android:layout_width="match_parent"
        android:layout_height="49dp"
        android:inputType="textPersonName" />
    <TextView
        android:id="@+id/Semester"
        android:layout_width="wrap_content"
```

```

        android:layout_height="wrap_content"
        android:text="Semester"
        android:textSize="20dp" />
<EditText
    android:id="@+id/Semester_ET"
    android:layout_width="match_parent"
    android:layout_height="49dp"
    android:inputType="textPersonName" />
<Button
    android:id="@+id/Login"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="50dp"
    android:text="Login" />
</LinearLayout>

```

MainActivity.java:-

```

package com.example.pract10;

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;
import android.widget.ToggleButton;
import android.os.Bundle;
public class MainActivity extends AppCompatActivity {
    EditText name_et,age_et,branch_et,sem_et;
    String Username, Age, Branch, Semester;
    Button login;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name_et=findViewById(R.id.Name_ET);
        age_et=findViewById(R.id.Age_ET);
        branch_et=findViewById(R.id.Branch_ET);
        sem_et=findViewById(R.id.Semester_ET);
        login =findViewById(R.id.Login);
        login.setOnClickListener(new View.OnClickListener()
        {
            @Override
            public void onClick(View v) {
                Toast.makeText(MainActivity.this,"Login Successfully!!
",Toast.LENGTH_SHORT).show();
            }
        });
    }
}

```


AndroidManifest.xml:-

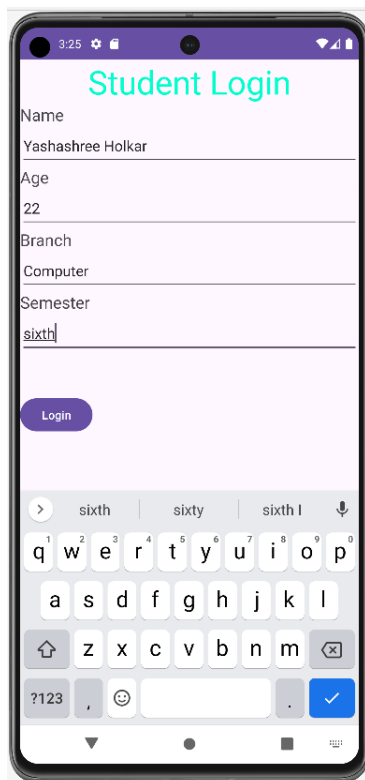
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Pract10"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Output:-



Practical no:-11

Develop a program to implement 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">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Kindly Select Books from below"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.434"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.054"
        android:textStyle="bold"
        android:textColor="#4A9FEA"
    />
    <CheckBox
        android:id="@+id/checkBox"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="144dp"
        android:layout_marginTop="68dp"
        android:text="C"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <CheckBox
        android:id="@+id/checkBox2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="CPP"
        android:layout_marginStart="144dp"
        android:layout_marginTop="124dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"/>
    <CheckBox
        android:id="@+id/checkBox3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="144dp"
        android:layout_marginTop="180dp"
        android:text="JAVA"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <CheckBox
```

```

        android:id="@+id/checkBox4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="144dp"
        android:layout_marginTop="230dp"
        android:text="DBMS"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"/>
<CheckBox
    android:id="@+id/checkBox5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="144dp"
    android:layout_marginTop="290dp"
    android:text="ANDROID"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="116dp"
    android:text="Order Selected Books"
    android:textStyle="bold"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/checkBox5"
    />
</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity.java:-

```

package com.example.pract11;

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 C,CPP,JAVA,DBMS,ANDROID;
    Button order;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        addListenerOnButtonClick();
    }
    public void addListenerOnButtonClick() {
        C=(CheckBox) findViewById(R.id.checkBox);
        CPP=(CheckBox) findViewById(R.id.checkBox2);
        JAVA=(CheckBox) findViewById(R.id.checkBox3);
        DBMS=(CheckBox) findViewById(R.id.checkBox4);
        ANDROID=(CheckBox) findViewById(R.id.checkBox5);
        order=(Button) findViewById(R.id.button);
        order.setOnClickListener(new View.OnClickListener() {

```

```

@Override
public void onClick(View view) {
    int total=0;
    StringBuilder result=new StringBuilder();
    result.append("Selected Books:");
    if(C.isChecked())
    {
        result.append("\nC 130Rs");
        total=total+130;
    }
    if(CPP.isChecked())
    {
        result.append("\nCPP: 150Rs");
        total=total+150;
    }
    if(JAVA.isChecked())
    {
        result.append("\nJAVA: 157Rs");
        total=total+157;
    }
    if(DBMS.isChecked())
    {
        result.append("\nDBMS: 180Rs");
        total=total+180;
    }
    if(ANDROID.isChecked())
    {
        result.append("\nANDRIOD: 200Rs");
        total=total+200;
    }
    result.append("\nTotal:"+total+"Rs");
}

```

```

Toast.makeText(getApplicationContext(),result.toString(),Toast.LENGTH_LONG).s
how();
    }
}
}
}

```

AndroidMainifest.xml:-

```

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

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Pract11"
        tools:targetApi="31">
        <activity

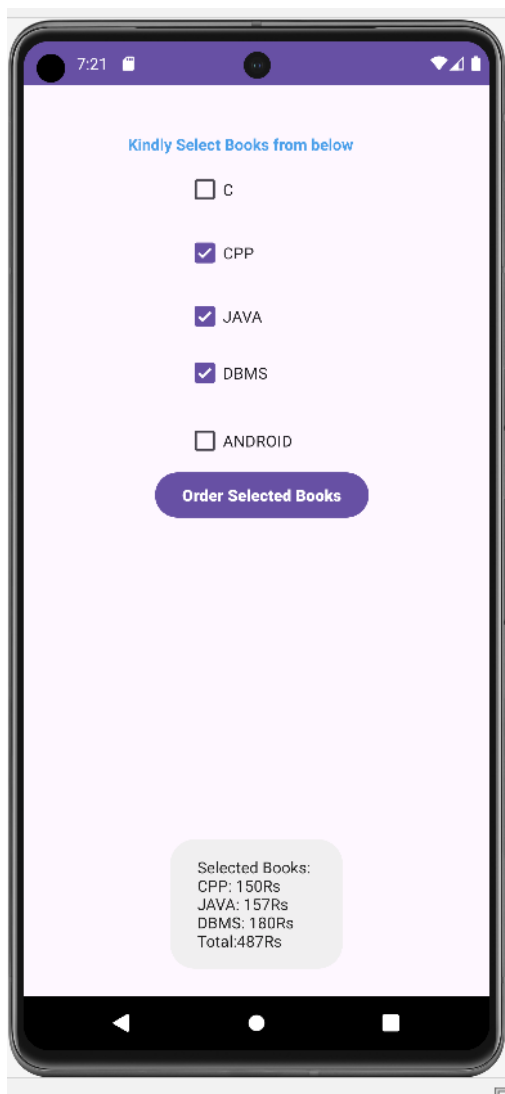
```

```
        android:name=".MainActivity"
        android:exported="true">
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
</application>

</manifest>
```

Output:-



Practical no:-12

Develop a program to implement Radio Button and Radio Group.

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="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    tools:context=".MainActivity">
    <TextView
        android:id="@+id/tv1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:gravity="center"
        android:text="Single radio Buttons" />
    <RadioGroup
        android:id="@+id/radiogrp2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:gravity="center"
        android:orientation="vertical"
        android:layout_marginTop="160dp"
        android:text="Radio Button Inside RadioGroup" />
    <RadioButton
        android:id="@+id/rb1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="2"
        android:text="Radio Button 1"
        android:layout_marginTop="20dp" />
    <RadioButton
        android:id="@+id/rb2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="2"
        android:text="Radio Button 2"
        android:layout_marginTop="50dp" />
    <View
        android:layout_width="match_parent"
        android:layout_height="1dp"
        android:background="@color/black"
        android:layout_marginTop="100dp"/>
    <RadioGroup
        android:id="@+id/radiogrp1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
```

```

        android:layout_below="@+id/radiogrp2"
        android:layout_marginTop="20dp"
        android:orientation="vertical">
        <RadioButton
            android:id="@+id/rb3"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Male" />
        <RadioButton
            android:id="@+id/rb4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Female">
        </RadioButton>
    </RadioGroup>
    <Button
        android:id="@+id/button"
        android:layout_width="200dp"
        android:layout_height="wrap_content"
        android:layout_below="@+id/radiogrp1"
        android:layout_marginTop="1dp"
        android:layout_centerHorizontal="true"
        android:layout_weight="1"
        android:gravity="center"
        android:text="Show Selected" />
</RelativeLayout>

```

MainActivity.java:-

```

package com.example.pract12;
import androidx.appcompat.app.AppCompatActivity;
import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;
import android.widget.RadioGroup;
import android.widget.RadioButton;
public class MainActivity extends AppCompatActivity {
    RadioGroup rgb, rgb1;
    RadioButton rb;
    Button btn;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn=(Button) findViewById(R.id.button);
        rgb1=(RadioGroup) findViewById(R.id.radiogrp2);
        rgb=(RadioGroup) findViewById(R.id.radiogrp1);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                rb=(RadioButton) findViewById(rgb.getCheckedRadioButtonId());
                String a=rb.getText().toString();
                Toast.makeText(MainActivity.this,"Selected Radio

```

```

Button:"+a,Toast.LENGTH_LONG).show();}
    });
}

```

AndroidManifest.xml:-

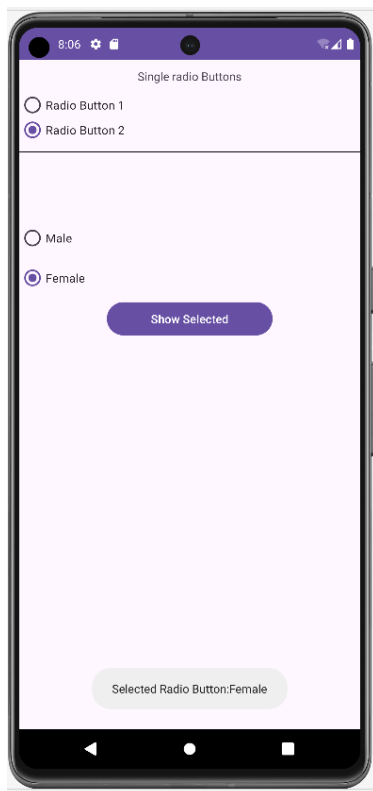
```

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

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Pract12"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>

```

Output:-



Practical no:-13

Develop a program to implement Progress Bar.

Activity_main.xml:-

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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"
    tools:context=".MainActivity" >

    <ProgressBar
        android:id="@+id/progressBar"
        style="?android:attr/progressBarStyleHorizontal"
        android:layout_width="343dp"
        android:layout_height="66dp"
        android:layout_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:layout_marginLeft="33dp"
        android:layout_marginTop="508dp"
        android:indeterminate="false"
        android:max="100"
        android:minWidth="200dp"
        android:minHeight="50dp"
        android:progress="1" />

    <ProgressBar
        android:id="@+id/progressBar_cyclic"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerInParent="true"
        android:minWidth="50dp"
        android:minHeight="50dp" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/progressBar"
        android:layout_alignLeft="@+id/progressBar"
        android:layout_marginLeft="122dp"
        android:layout_marginTop="-100dp"/>

</RelativeLayout>
```

MainActivity.java:-

```
package com.example.pract13;

import android.os.Bundle;
import android.os.Handler;
import android.widget.ProgressBar;
```

```

import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private ProgressBar progressBar;
    private int progressStatus = 0;
    private TextView textView;
    private Handler handler = new Handler();

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        progressBar = (ProgressBar) findViewById(R.id.progressBar);
        textView = (TextView) findViewById(R.id.textView);
        // Start long running operation in a background thread
        new Thread(new Runnable() {
            public void run() {
                while (progressStatus < 100) {
                    progressStatus += 1;
                    // Update the progress bar and display the
                    //current value in the text view
                    handler.post(new Runnable() {
                        public void run() {
                            progressBar.setProgress(progressStatus);

textView.setText(progressStatus+"/"+progressBar.getMax());
                        }
                    });
                    try {
                        // Sleep for 200 milliseconds.
                        Thread.sleep(200);
                    } catch (InterruptedException e) {
                        e.printStackTrace();
                    }
                }
            }
        }).start();
    }
}

```

AndroidManifest.xml:-

```

<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"

```

```
    android:supportsRtl="true"
    android:theme="@style/Theme.Pract13"
    tools:targetApi="31">
    <activity
        android:name=".MainActivity"
        android:exported="true">
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
</application>

</manifest>
```

Output:-



Practical no:-14

Develop a program to implement List View.

Activity_main.xml:-

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    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"
    tools:context=".MainActivity"
    tools:ignore="ResAuto">
    <ListView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:entries="@array/Language_list" />
</RelativeLayout>
```

Strings.xml:-

```
<resources>
    <string name="app_name">pra_14</string>
    <array name="Language_list">
        <item>Android</item>
        <item>Java</item>
        <item>PHP</item>
        <item>Hadoop</item>
        <item>Sap</item>
        <item>Phython</item>
        <item>Ajax</item>
        <item>C++</item>
        <item>Puby</item>
        <item>Rails</item>
    </array>
</resources>
```

MainActivity.java:-

```
package com.example.pract14;

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);
    }
}

```

AndroidManifest.xml:-

```

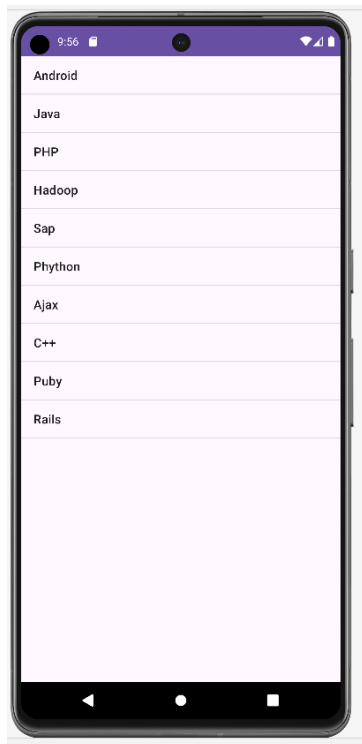
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Pract14"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>

```

Output:-



Practical no:-14

Develop a program to implement Image View.

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="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/image1"
        android:layout_width="match_parent"
        android:layout_height="345dp"
        android:layout_centerHorizontal="true"
        tools:srcCompat="@drawable/bunch" />

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/image1"
        android:layout_centerHorizontal="true"
        android:text="Change Image" />
</RelativeLayout>
```

MainActivity.java:-

```
<?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="wrap_content"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/image1"
        android:layout_width="match_parent"
        android:layout_height="345dp"
        android:layout_centerHorizontal="true"
        tools:srcCompat="@drawable/bunch" />

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

```
        android:layout_height="wrap_content"
        android:layout_below="@+id/image1"
        android:layout_centerHorizontal="true"
        android:text="Change Image" />
</RelativeLayout>
```

AndroidManifest.xml:-

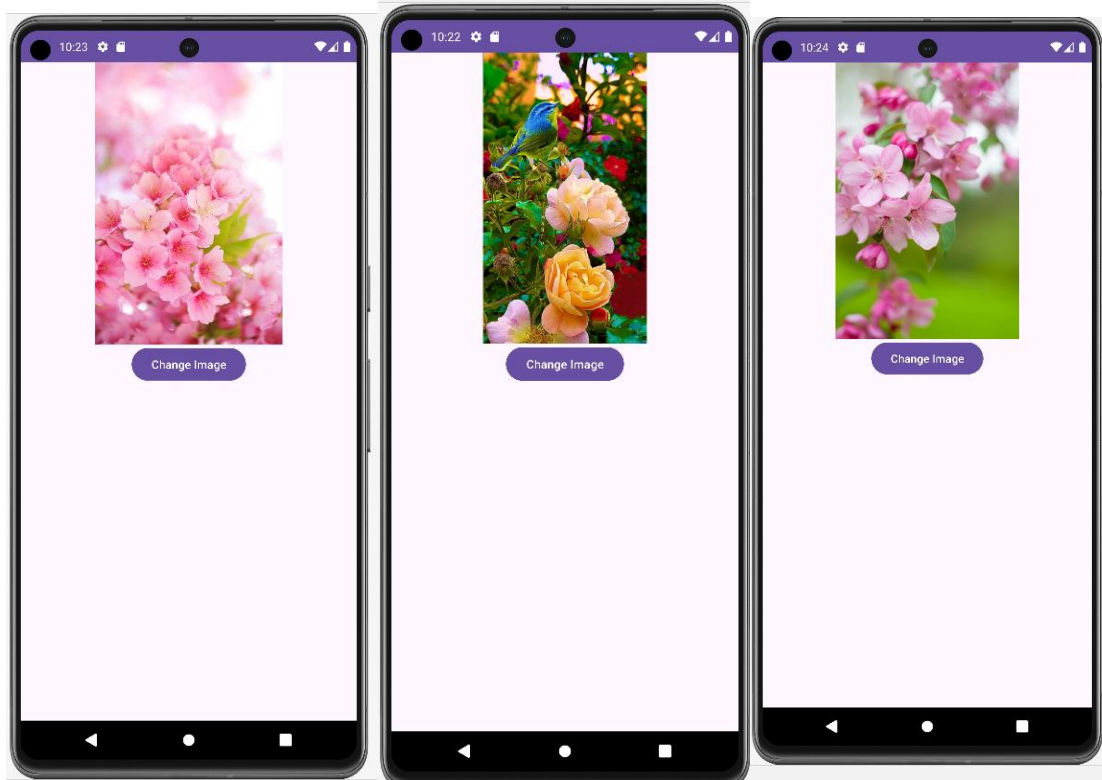
```
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Pract14imageview"
        tools:targetApi="31">
        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```

Output:-



Practical no:-15

Develop a program to implement Custom Toast Alert.

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"
    tools:context=".MainActivity"
    android:orientation="vertical">
    <TextView
        android:id="@+id/textview"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World, Toast Example"
        android:textSize="30sp" />
    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="show"
        android:text="show Toast"
        android:textSize="30sp"/>
</LinearLayout>
```

MainActivity.java:-

```
public class MainActivity extends AppCompatActivity {
    Button btn;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void addListenerOnButtonClick() {
        btn = (Button) findViewById(R.id.button);
        btn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Toast.makeText(MainActivity.this, "Message For You: you have
got mail!", Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

AndroidMainifest.xml:-

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

```
<application
    android:allowBackup="true"
    android:dataExtractionRules="@xml/data_extraction_rules"
    android:fullBackupContent="@xml/backup_rules"
    android:icon="@mipmap/ic_launcher"
    android:label="@string/app_name"
    android:roundIcon="@mipmap/ic_launcher_round"
    android:supportsRtl="true"
    android:theme="@style/Theme.Pract15"
    tools:targetApi="31">
    <activity
        android:name=".MainActivity"
        android:exported="true">
        <intent-filter>
            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER" />
        </intent-filter>
    </activity>
</application>
</manifest>
```

Output:-



Practical no:-16

Develop a program to implement Date and Time Picker.

Activity_main.xml:-

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
    <TimePicker
        android:id="@+id/tpp"
        android:layout_width="wrap_content"
        android:layout_height="200dp"
        android:timePickerMode="spinner" />
    <DatePicker
        android:layout_width="match_parent"
        android:layout_height="450dp"/>
</LinearLayout>
```

MainActivity.java:-

```
package com.example.pract16;

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);
    }
}
```

AndroidManifest.xml:-

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

    <application
        android:allowBackup="true"
        android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.Pract16"
        tools:targetApi="31">
```

```

<activity
    android:name=".MainActivity"
    android:exported="true">
    <intent-filter>
        <action android:name="android.intent.action.MAIN" />

        <category android:name="android.intent.category.LAUNCHER" />
    </intent-filter>
</activity>
</application>
</manifest>

```

Output:-

