Name:Abhinay Mhatre
TYCS A
Roll no:9143

Practical No.1 A

Aim: Write a program to print Welcome Message.

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:id="@+id/main"
    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="Welcome"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Abhinay Mhatre"
        tools:layout_editor_absoluteX="226dp"
        tools:layout_editor_absoluteY="406dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```
package com.example.prac1a_9112;
import android.os.Bundle;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
```

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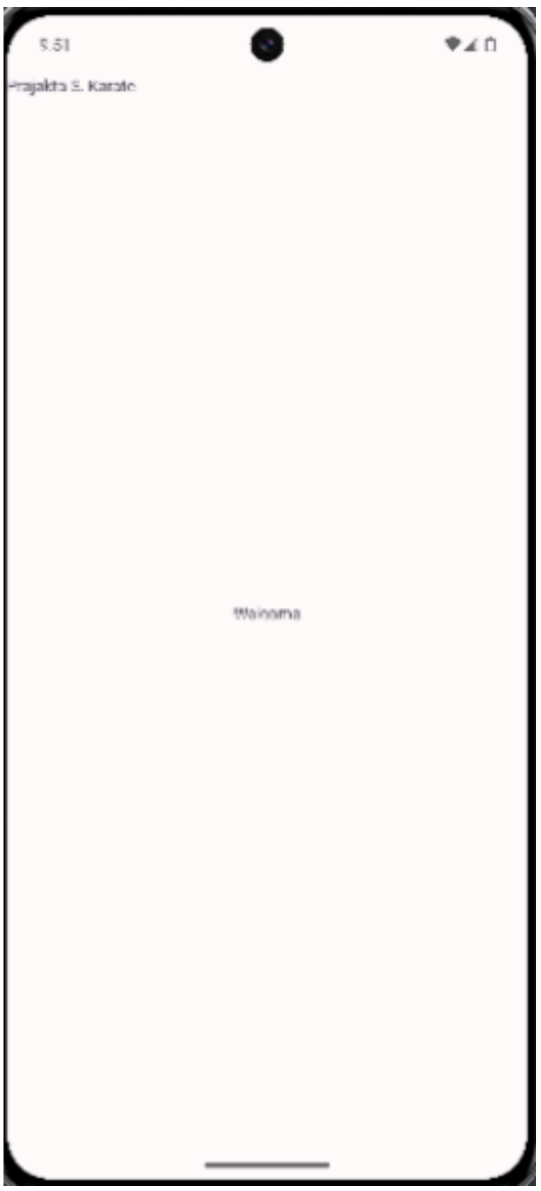
```
import androidx.core.view.WindowInsetsCompat;
public class MainActivity extends AppCompatActivity {
@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) ->
{
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
            v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
            return insets;
        });
    }
}
```

Output:-



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Practical No.1 B

Aim: Write a Program to add two numbers.

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"
   android:padding="16dp"
   android:gravity="center">

   <!-- TextView for First Number -->
   <TextView
      android:id="@+id/txtN1"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Enter first number"
      android:textSize="18sp"
      android:layout_marginTop="50dp"
      android:paddingBottom="8dp" />

   <!-- EditText for First Number -->
   <EditText
      android:id="@+id/n1"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      android:ems="10"
      android:inputType="number"
      android:layout_marginBottom="16dp"
      android:padding="10dp" />

   <!-- TextView for Second Number -->
   <TextView
      android:id="@+id/txtN2"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Enter second number"
      android:textSize="18sp"
      android:layout_marginBottom="8dp" />
```

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```
    <!-- EditText for Second Number -->
    <EditText
        android:id="@+id/n2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        android:layout_marginBottom="16dp"
        android:padding="10dp" />

    <!-- Button to Calculate -->
    <Button
        android:id="@+id/add"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Add"
        android:layout_marginBottom="20dp"
        android:layout_gravity="center" />

    <!-- TextView to Display Result -->
    <TextView
        android:id="@+id/result"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Result"
        android:textSize="18sp"
        android:layout_gravity="center"
        android:layout_marginTop="16dp"/>

</LinearLayout>
```

MainActivity.java

```
package com.example.prac1a_9112;

import android.os.Bundle;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
```

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```
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import android.view.View;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {
    EditText n1, n2;
    Button btn;
    TextView r;

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

        n1 = findViewById(R.id.n1);
        n2 = findViewById(R.id.n2);
        btn = findViewById(R.id.add);
        r = findViewById(R.id.result);

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

                double a = Double.parseDouble(n1.getText().toString());
                double b = Double.parseDouble(n2.getText().toString());

                // Calculate the sum
                double c = a + b;

                // Set the result text
                r.setText("Sum = " + c);

            }
        });

        /*
        ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -
> {
            Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
```

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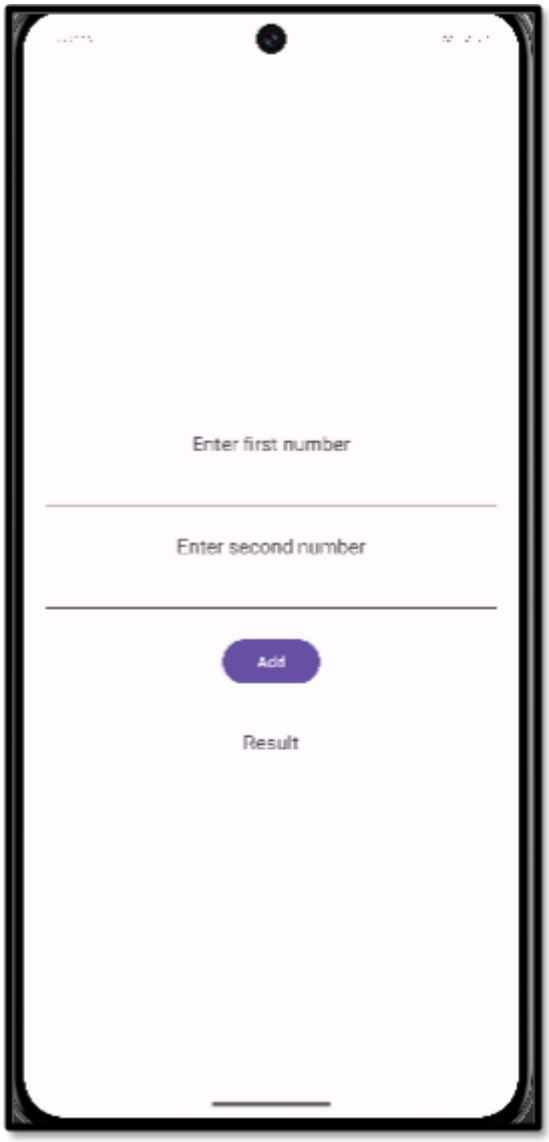
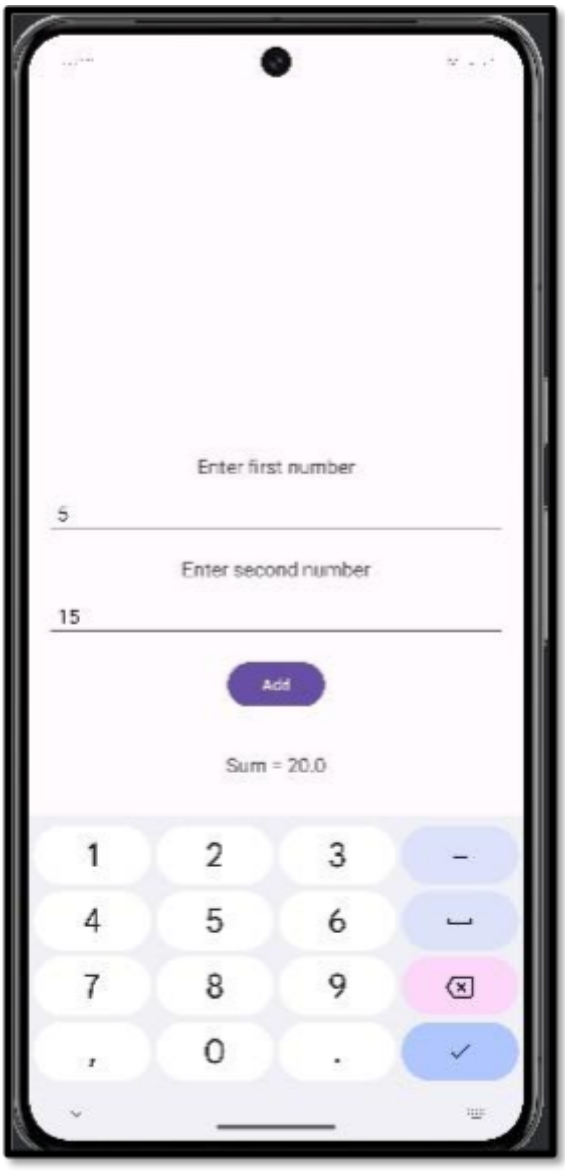
```
        v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
        return insets;
    });
    }
     */
  }
}
```

Output:-





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PRACTICAL NO: 02

Aim: Write a program to create the email layout with the help of LinearLayout.

activity_main.xml

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:layout_width="match_parent
"
android:layout_height="match_paren
t">
<EditText
android:id="@+id/editTextText"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:ems="10"
android:hint="To"
android:textColorHint=""
android:inputType="textEmailAddres
s"/>
<EditText
android:id="@+id/editTextText2"
android:layout_width="match_par
ent"
android:layout_height="wrap_con
tent" android:ems="10"
android:hint="Subject"
android:inputType="text"
android:text="" />
<EditText
android:id="@+id/editTextText3"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:ems="10"
android:inputType="text"
android:hint="Message"
android:gravity="top"
android:layout_weight="1" />
<Button
android:id="@+id/button"
android:layout_width="wrap_content
"
android:layout_height="wrap_content
" android:text="Button"
android:layout_gravity="right"/>
```

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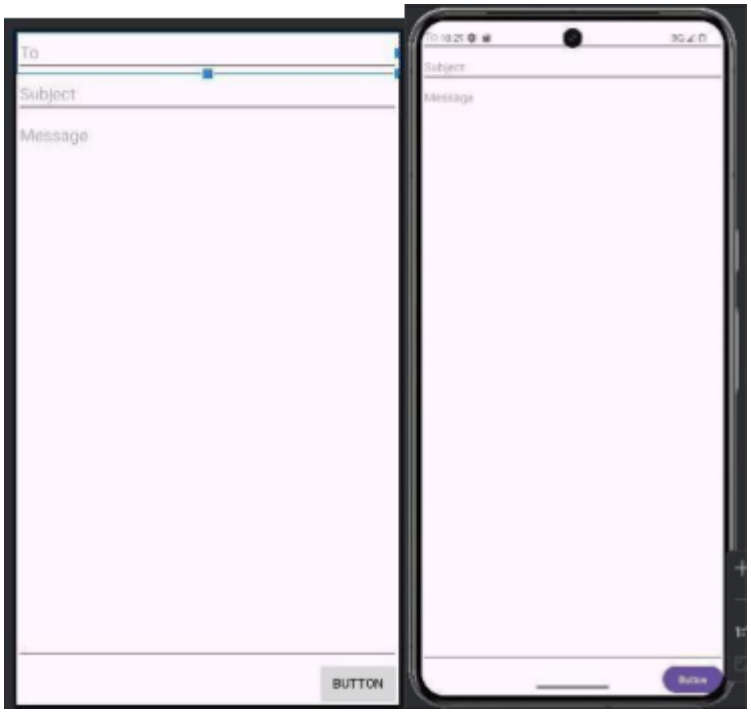
</LinearLayout>

OUTPUT:



B. Write a program to add the below details using TableLayout

```
<TableLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:layout_width="match_parent"
android:layout_height="match_parent"
android:layout_marginTop="100dp"
android:paddingLeft="10dp"
android:paddingRight="10dp">
 <TableRow
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:background="#2180CC"
android:padding="10dp">
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="UserId"
   android:textSize="20dp"/>
<TextView
```

```
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="User Name"
android:textSize="20dp"/>
  <TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="Location"
android:textSize="20dp"/>
 </TableRow>
<TableRow
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:background="#7EBCEF"
android:padding="10dp">
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="1" />
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="shark" />
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="deep sea" />
</TableRow>
<TableRow
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:background="#7EBCEF"
android:padding="10dp">
<TextView
```

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```
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="2" />
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="lobster" />
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="surface" />
 </TableRow>
<TableRow
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:background="#7EBCEF"
android:padding="10dp">
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="3" />
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="whale" />
<TextView
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:layout_weight="1"
android:text="mid sea" />
</TableRow>
</TableLayout>
```

OUTPUT:

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C. Write a program to create FrameLayout

```
<FrameLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
android:layout_width="match_parent"
android:layout_height="match_parent
" android:orientation="vertical">
<ImageView
android:id="@+id/imageView"
android:layout_width="match_parent
" android:layout_height="684dp"
android:scaleType="centerCrop"
app:srcCompat="@drawable/tower"
/>
<TextView
android:id="@+id/txtvw1"
android:layout_width="match_par
ent"
android:layout_height="wrap_con
tent"
android:layout_gravity="bottom"
android:background="#B6D0E2"
android:padding="10dp"
```

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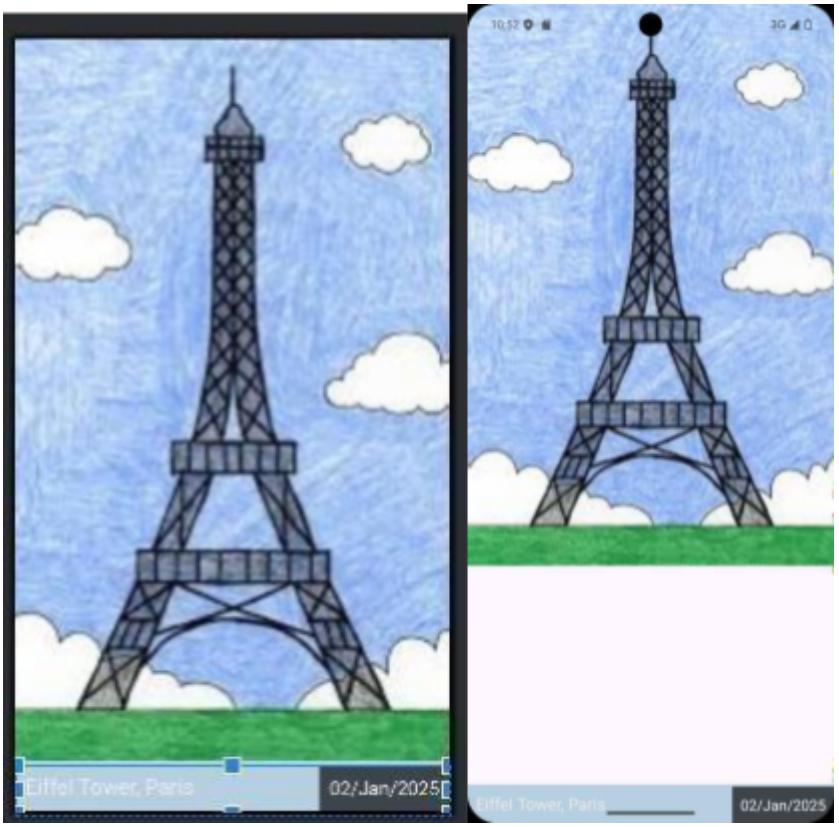
```
android:text="Eiffel Tower, Paris"
android:textColor="#F2EAEA"
android:textSize="20sp" />
<TextView
android:id="@+id/txtvw2"
android:layout_width="wrap_con
tent"
android:layout_height="wrap_content
"
android:layout_gravity="right|bottom
" android:background="#AA000000"
android:padding="10dp"
android:text="02/Jan/2025"
android:textColor="#FFFFFF"
android:textSize="18sp"/>
</FrameLayout>
```

OUTPUT:



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PRACTICAL NO: 03

(A) Write an android program to demonstrate the use of TextView CODE:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:layout_width="match_parent
"
android:layout_height="match_parent
" android:background="#FFEB3B"
android:padding="16dp">
   <TextView
android:id="@+id/textView"
android:layout_width="match_parent"
android:layout_height="wrap_content
" />
   <TextView
android:id="@+id/textView2"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:text="ALEGRIA"
android:textSize="15sp"
android:textColor="#673AB7"
android:textStyle="bold"
android:gravity="center"
android:layout_marginTop="10dp"/>
   <TextView
android:id="@+id/textView3"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:text="tech events"
android:textAllCaps="true"
android:gravity="center"
android:layout_marginTop="10dp"/>
   <TextView
android:id="@+id/textView4"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:text="BUG HUNTER"
android:gravity="center"
android:layout_marginTop="10dp"
android:textSize="15sp"
android:background="#F44336"/>
   <TextView
```

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```
 android:id="@+id/textView5"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:layout_marginTop="10dp"
android:autoLink="email|web"
android:text="For more details visit
https://www.google.com and send
mail to support@alegria.com" />
</LinearLayout>
```

MainActivity.java

```
package com.example.pract3a9108; import
android.os.Bundle; import
androidx.activity.EdgeToEdge; import
androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets; import
androidx.core.view.ViewCompat; import
androidx.core.view.WindowInsetsCompat;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity
   { TextView txt;
@Override
   protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
      txt=findViewById(R.id.textView);
txt.setText("WELCOME TO PILLAI COLLEGE");

   }
}
```

OUTPUT:

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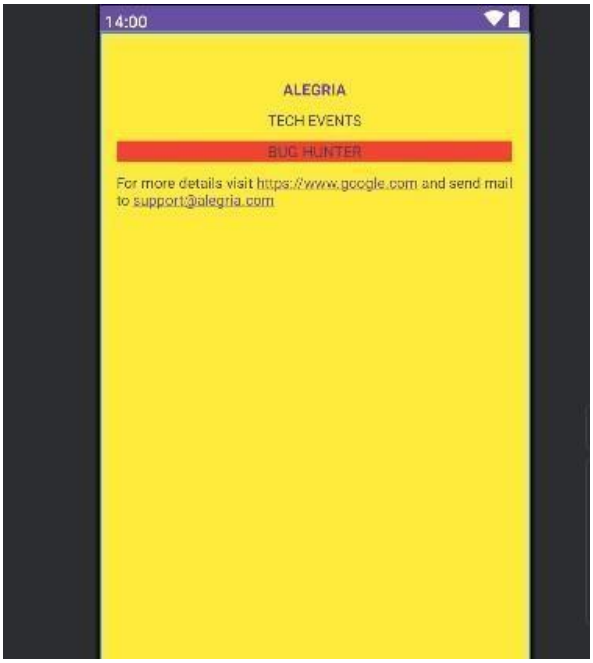

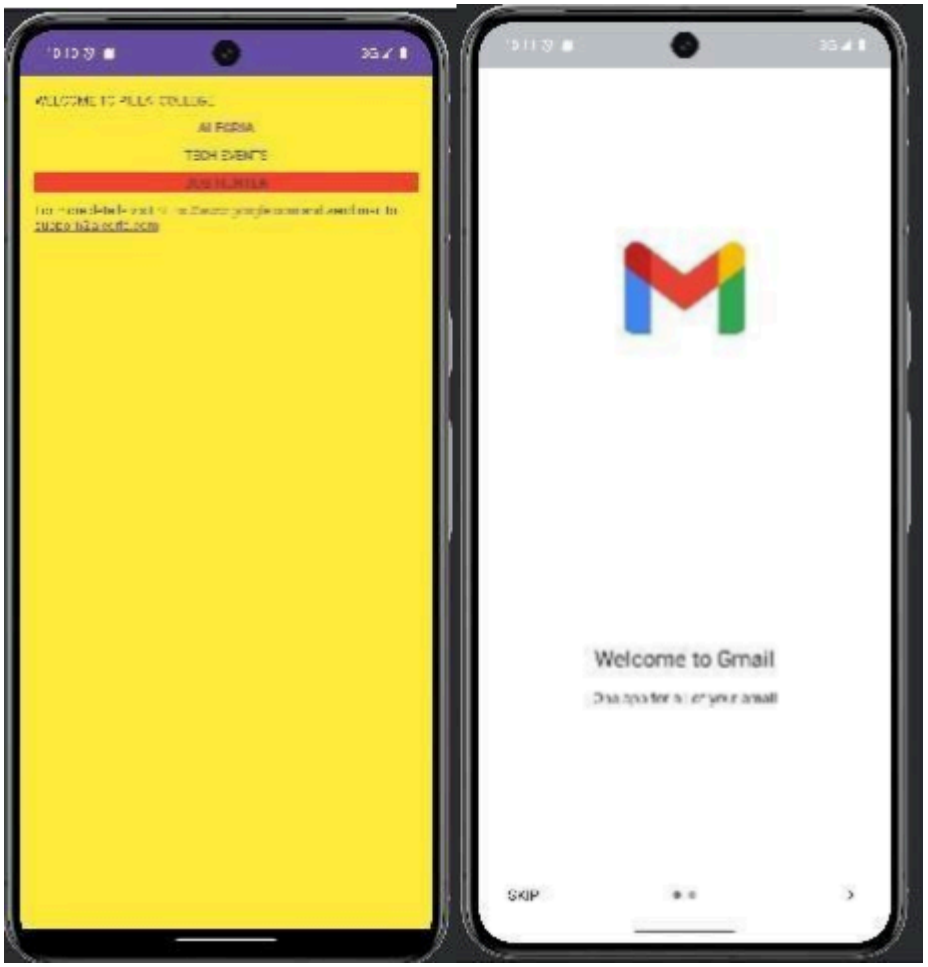

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(B) Write an android program to demonstrate the functionality of EditText and Button CODE:

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:gravity="center"
android:orientation="vertical"
android:padding="20dp">
   <EditText
android:id="@+id/Name"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:ems="10"
android:hint="Name"
android:inputType="text"
android:paddingBottom="20dp"
android:text="Name"
android:textSize="20sp" />
   <EditText
      android:id="@+id/Password"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:ems="10"
android:hint="Password"
android:paddingBottom="20dp"
android:text="Password"
android:textSize="20sp" />
   <EditText
      android:id="@+id/Ema
      il"
android:layout_width="match_pare
nt"
android:layout_height="wrap_conte
nt" android:ems="10"
android:hint="Email"
android:inputType="textEmailAddr
ess"
android:paddingBottom="20dp"
android:text="Email" />
   <EditText
```

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```
        android:id="@+id/Date"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:ems="10"
android:hint="Date"
android:inputType="datetime"
android:paddingBottom="20dp"
android:text="Date" />
   <EditText
android:id="@+id/Phone"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:ems="10"
android:hint="Phone Number"
android:inputType="phone"
android:paddingBottom="20dp"
android:text="Phone Number" />
    <Button
  android:id="@+id/submit"
android:layout_width="wrap_content
"
android:layout_height="wrap_content
" android:gravity="center"
android:text="Submit"
android:textAlignment="center" />
    <TextView
android:id="@+id/name"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:textSize="20sp" />
   <TextView
android:id="@+id/password"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:textSize="20sp" />
  <TextView
  android:id="@+id/email"
android:layout_width="match_parent"
android:layout_height="wrap_content
" android:textSize="20sp" />
  <TextView
```

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```
 android:id="@+id/date"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:textSize="20sp" />
 <TextView
android:id="@+id/phone"
android:layout_width="match_par
ent"
android:layout_height="wrap_content
      " android:textSize="20sp" />
</LinearLayout>
```

MainActivity.java CODE:

```
package com.example.pract1c; import
android.os.Bundle; import
androidx.activity.EdgeToEdge; import
androidx.appcompat.app.AppCompatActivity;
import android.view.View; import
android.widget.Button; import
android.widget.TextView; import
android.widget.EditText;
public class MainActivity extends AppCompatActivity
   { @Override
   protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
   EditText n = findViewById(R.id.Name);
      EditText e = findViewById(R.id.Email);
      EditText p =
      findViewById(R.id.Password); EditText
      d = findViewById(R.id.Date); EditText
      f = findViewById(R.id.Phone); Button
      print = findViewById(R.id.submit);
      TextView tn =
      findViewById(R.id.name);
TextView te = findViewById(R.id.email);
      TextView tp = findViewById(R.id.password);
      TextView td = findViewById(R.id.date);
 TextView tf = findViewById(R.id.phone);
print.setOnClickListener(new View.OnClickListener() {
         @Override
   public void onClick(View view) {
tn.setText(n.getText());
te.setText(e.getText());
```

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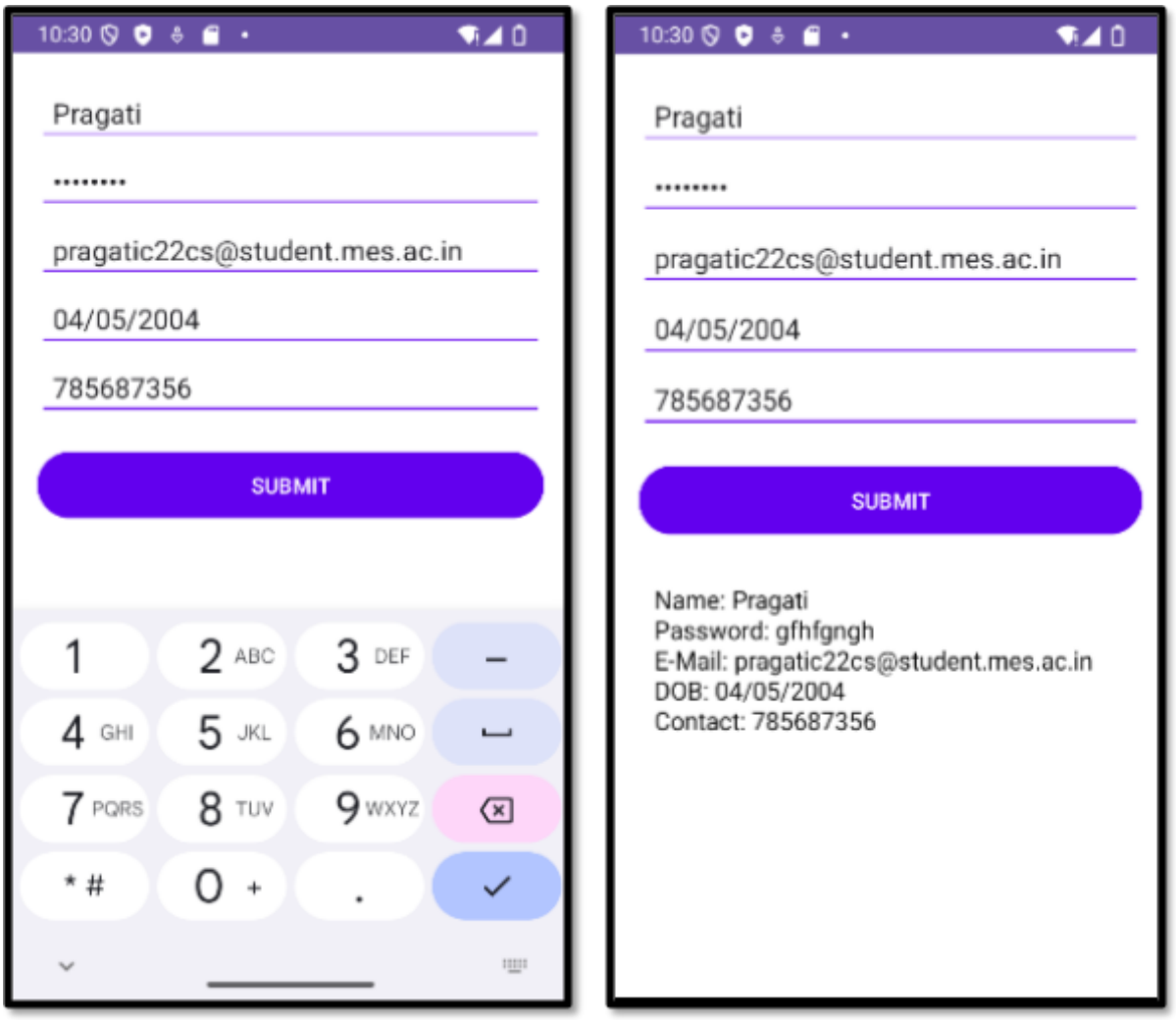
```
tp.setText(p.getTex
t());
td.setText(d.getTex
t());
tf.setText(f.getText
());
        }});
    }
}
```

OUTPUT:



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PRACTICAL NO: 04

AIM: Create an Android app with a RadioGroup for lesson ratings, checkboxes for feedback, and a Submit button to display the selected rating and checkbox states in a TextView, with validation for rating selection.

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
android:orientation="vertical"
android:layout_width="match_pare
nt"
android:layout_height="match_par
ent" android:paddingTop="50dp">
<TextView
android:id="@+id/textView"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent"
android:text="RadioCheckBox"
android:textSize="30dp"
android:background="#CABBE6"
android:gravity="center"/>
<TextView
android:id="@+id/textView2"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:text="Rate This
Lesson"
android:gravity="center"
android:textSize="20dp"
android:paddingTop="20dp"/>
<RadioGroup
android:id="@+id/radioGroup"
android:layout_width="match_parent
"
android:layout_height="wrap_content
" android:orientation="horizontal"
android:gravity="center"
android:paddingTop="20dp">
<RadioButton
android:id="@+id/r1"
android:layout_width="wrap_conte
nt"
android:layout_height="wrap_cont
ent"
android:text="EXCELLENT"/>
    <RadioButton
```

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```
android:id="@+id/r2"
android:layout_width="wrap
_content"
android:layout_height="wra
p_content"
android:text="GOOD"/>
<RadioButton
android:id="@+id/r3"
android:layout_width="wrap_conte
nt"
android:layout_height="wrap_cont
ent" android:text="OKAY"/>
<RadioButton
android:id="@+id/r4"
android:layout_width="wrap_conte
nt"
android:layout_height="wrap_cont
ent" android:text="POOR"/>
</RadioGroup>
 <TextView
android:id="@+id/textView3"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent"
android:text="Give your Suggestions Here"
android:textSize="25dp"
android:gravity="center"
android:paddingTop="20dp"
android:paddingBottom="20dp"/>
 <CheckBox
android:id="@+id/checkBox2"
android:layout_width="match_parent
"
android:layout_height="wrap_content
"
android:text="I Really Enjoyed This Lesson"
android:layout_marginLeft="40dp"
android:textSize="19dp"/>
 <CheckBox
android:id="@+id/checkBox3"
android:layout_width="wrap_content
"
android:layout_height="wrap_content
" android:layout_marginLeft="40dp"
android:textSize="19dp"
android:text="I will Prefer This Lesson To Else Also" />
<CheckBox
android:id="@+id/checkBox4"
android:layout_width="wrap_content
```

```
"
android:layout_height="wrap_content
" android:layout_marginLeft="40dp"
android:textSize="19dp"
android:text="I would Like To Here More From You" />
<CheckBox
android:id="@+id/checkBox5"
android:layout_width="wrap_content
"
android:layout_height="wrap_content
" android:layout_marginLeft="40dp"
android:textSize="19dp"
android:text="I am Satisfied With The Lessons" />
 <Button
android:id="@+id/button"
android:layout_width="wrap_content
"
android:layout_height="wrap_content
" android:text="Submit"
android:layout_gravity="center"/>
<TextView
android:id="@+id/textView4"
android:layout_width="match_par
ent"
android:layout_height="wrap_cont
ent" android:textSize="20dp"
android:paddingTop="30dp" />
</LinearLayout>
```

MainActivity.java

```
package
com.example.a9112p4;
import android.os.Bundle;
import android.view.View;
import
android.widget.Button;
import android.widget.CheckBox;
import
android.widget.RadioButton;
import
android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;
 import androidx.activity.EdgeToEdge;
 import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity
{
        @Override
        protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
```

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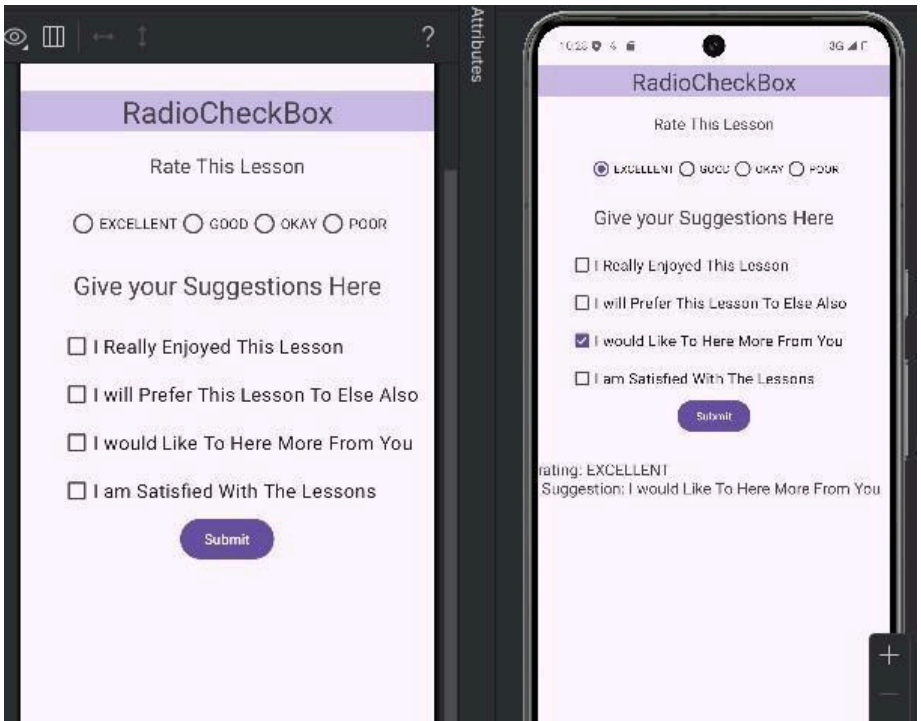
```
EdgeToEdge.enable(this);
        setContentView(R.layout.activity_main);
RadioGroup rg = findViewById(R.id.radioGroup);
        CheckBox
        c1=findViewById(R.id.checkBox2);
        CheckBox
        c2=findViewById(R.id.checkBox3);
        CheckBox
        c3=findViewById(R.id.checkBox4);
        CheckBox
        c4=findViewById(R.id.checkBox5); Button
        btn= findViewById(R.id.button);
TextView t= findViewById(R.id.textView4); btn.setOnClickListener(new View.OnClickListener()
{
    @Override
      public void onClick(View view) {
        RadioButtonselectid=findViewById(rg.getCheckedRadioButtonId());
if(rg.getCheckedRadioButtonId()==-1){
        Toast.makeText(MainActivity.this,"Rateus",Toast.LENGTH_SHORT).show();}
        else{
                String rbtext=
selectid.getText().toString()+"\n"; String ctext="";
if(c1.isChecked()){ctext+=c1.getText().toString()+"\n";}
if(c2.isChecked()){ctext+=c2.getText().toString()+"\n";}
if(c3.isChecked()){ctext+=c3.getText().toString()+"\n";}
if(c4.isChecked()){ctext+=c4.getText().toString()+"\n";}
t.setText("rating: "+rbtext+" Suggestion: "+ ctext);}
    }
      });
      }
}
```

OUTPUT:



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Practical No: 5A

Aim: Write an android program to navigate from one screen to another .

Code:

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
        android:orientation="vertical"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:gravity="center">
   <TextView
      android:id="@+id/txtMsg1"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Welcome to first screen"
      android:textSize="24sp"
      android:textColor="#F90234"/>
   <Button
      android:id="@+id/btnNext"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Next"
      android:layout_marginTop="8dp"/>
</LinearLayout>
```

Activity_Navigate.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
   android:orientation="vertical"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:gravity="center">
   <TextView
      android:id="@+id/txtMsg1"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="Welcome to second screen"
      android:textSize="24sp"
      android:textColor="#F90234"/>
   <Button
      android:id="@+id/btnBack"
      android:layout_width="wrap_content"
      android:layout_height="wrap_content"
      android:text="GO BACK"
      android:layout_marginTop="8dp"/>
</LinearLayout>
```

MainActivity.java:

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```
package com.example.practical5a;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity

{

   @Override
   protected void onCreate(Bundle s) {
      super.onCreate(s);
      EdgeToEdge.enable(this);
      setContentView(R.layout.activity_main);
      View btn;
      btn.setOnClickListener(new View.OnClickListener()
         { @Override
         public void onClick(View view) {
            Intent it=new Intent(MainActivity.this, NavigateActivity.class);
            startActivity(it);
         }
      });

      )
   }}
```

NavigateActivity.java:

```
package com.example.practical5a;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.Button;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class NavigateActivity extends AppCompatActivity {
```

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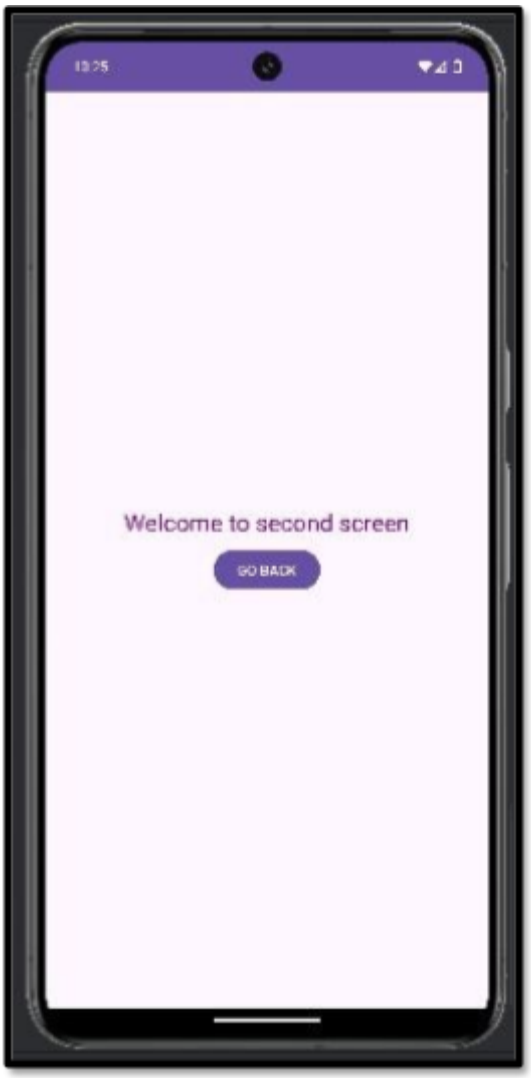
```
Button btn=findViewById(R.id.btnBack);;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    EdgeToEdge.enable(this);
    setContentView(R.layout.activity_navigate);
    btn.setOnClickListener(new View.OnClickListener()
        { @Override
        public void onClick(View view) {
            Intent it = new Intent(NavigateActivity.this,MainActivity.class);
            startActivity(it);
        }
    });}}
```

Output:



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Practical : 5B

Aim: Write an Android program to demonstrate the Options Menu.

File name: themes.xml

```
<resources xmlns:tools="http://schemas.android.com/tools">
    <style name="Base.Theme.Prac5" parent="Theme.Material3.DayNight">
    </style>
    <style name="Theme.Prac5" parent="Base.Theme.Prac5" />
</resources>
```

File name: themes.xml(night)

```
<resources xmlns:tools="http://schemas.android.com/tools">
    <style name="Base.Theme.Prac5" parent="Theme.Material3.DayNight">
    </style>
</resources>
```

File name: options.xml

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:android="http://schemas.android.com/apk/res/android">
    <item
        android:id="@+id/search"
        android:title="Search" />
    <item android:id="@+id/upload"
        android:title="Upload" />
    <item android:id="@+id/copy"
        android:title="Copy" />
    <item android:id="@+id/print"
        android:title="Print" />
    <item android:id="@+id/share"
        android:title="Share" />
    <item
    android:id="@+id/bookmark"
    android:title="BookMark" />
</menu>
```

File name: 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"
    android:padding="16dp">
    <TextView
```

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```
    android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="This is a Prac 5 B"
        android:textSize="18sp" />
</LinearLayout>
```

File name: MainActivity.java

```
package com.example.prac5;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.options, menu);
        return true;
    }
    @Override
    public boolean onOptionsItemSelected(MenuItem item) {
        Toast.makeText(this, "Selected Item: " + item.getTitle(),

                Toast.LENGTH_LONG).show();
        int num = item.getItemId();
        if (num == R.id.search){
            Toast.makeText(this, "Selected Item: " + item.getTitle(),
                    Toast.LENGTH_LONG).show();
            return true;}
        else if (num == R.id.upload){
            Toast.makeText(this, "Selected Item: " + item.getTitle(),
                    Toast.LENGTH_LONG).show();
            return true;
        }
        else if (num == R.id.copy){
            Toast.makeText(this, "Selected Item: " + item.getTitle(),
                    Toast.LENGTH_LONG).show();
            return true;
        }
        else if (num == R.id.print){
```

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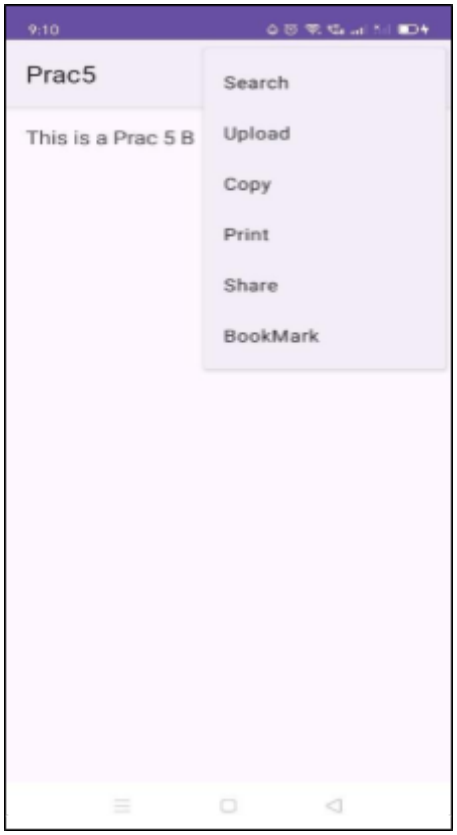
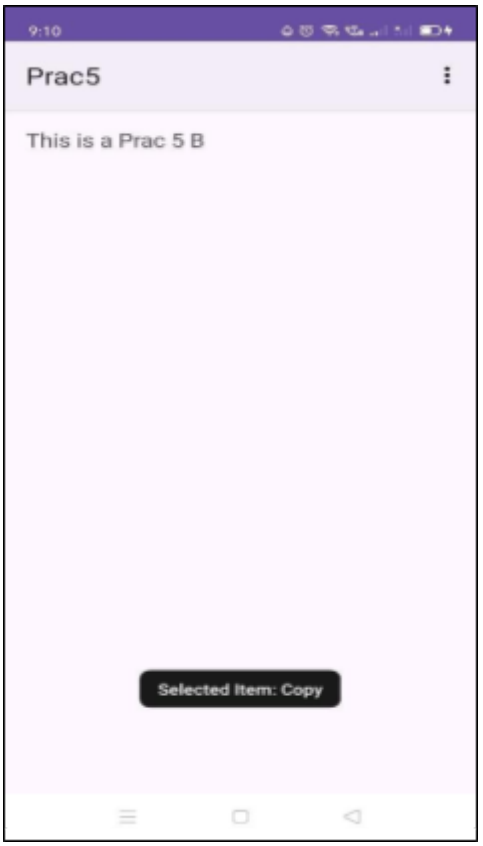
```
            Toast.makeText(this, "Selected Item: " + item.getTitle(),
                    Toast.LENGTH_LONG).show();
return true;
}
        else if (num == R.id.share){
            Toast.makeText(this, "Selected Item: " + item.getTitle(),
                    Toast.LENGTH_LONG).show();
            return true;
        }
        else if (num == R.id.bookmark){
            Toast.makeText(this, "Selected Item: " + item.getTitle(),
                    Toast.LENGTH_LONG).show();
            return true;
        }
        else{
            return super.onOptionsItemSelected(item);
        }
    }

}
```

Output:





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Practical 06

Aim: Write a program to create RecyclerView in android.

Activity_main.xml

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

    <androidx.recyclerview.widget.RecyclerView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:id="@+id/recyclerView"/>
</LinearLayout>
```

Items_layout.xml

```
<TextView
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:padding="16dp"
    android:textSize="18sp" />
```

MainActivity.java

```
package com.example.practical6;
import android.os.Bundle;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;

import java.util.Arrays;
import java.util.List;
public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        RecyclerView recyclerView = findViewById(R.id.recyclerView);
```

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```
        List<String> names = Arrays.asList
                (       "Aarav", "Ananya", "Vivaan", "Ishita", "Vihaan",
                        "Myra", "Aditya", "Aanya", "Aryan", "Diya",
                        "Dhruv", "Saanvi", "Kabir", "Riya", "Arjun",
                        "Sahana", "Rohan", "Kavya", "Karthik", "Tanvi",
                        "Om", "Nisha", "Sai", "Pooja", "Dev",
                        "Meera", "Manav", "Priya", "Raj", "Sneha",
                        "Nikhil", "Tanya", "Harsh", "Lakshmi", "Rishi",
                        "Aditi", "Samarth", "Shanaya", "Krishna", "Anjali",
                        "Ishan", "Rekha", "Arnav", "Neha", "Varun",
                        "Sita", "Kunal", "Bhavna", "Yash", "Gayatri");
        recyclerView.setLayoutManager(new LinearLayoutManager(this));
        recyclerView.setAdapter(new MyAdapter(names));
    }
}
```

Output:

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PRACTICAL NO: 08

AIM: Create an application to store the name and age entered by the user in the database

CODE:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
 android:orientation="vertical"
 android:layout_width="match_parent"
 android:layout_height="match_parent">
 <EditText
 android:id="@+id/name"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
 android:hint="Enter Name"/>
 <EditText
 android:id="@+id/age"
 android:layout_width="match_parent"
 android:layout_height="wrap_content"
 android:layout_below="@id/name"
 android:layout_marginTop="16dp"
 android:hint="Enter Age"/>
 <Button
 android:id="@+id/btn"
 android:layout_width="wrap_content"
 android:layout_height="wrap_content"
 android:layout_below="@id/age"
 android:layout_marginTop="16dp"
 android:text="Add to Database"/>
</LinearLayout>
```

MainActivity.java

```
package com.example.pract8;
import android.os.Bundle;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;
import android.content.ContentValues;
import android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
```

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```
public class MainActivity extends AppCompatActivity {
 EditText nameEdit, ageEdit;
 Button btn;
 DBHelper help = new DBHelper(this);
 @Override
 protected void onCreate(Bundle savedInstanceState) {
 super.onCreate(savedInstanceState);
 setContentView(R.layout.activity_main);// Initialize the UI components
 nameEdit = findViewById(R.id.name);
 ageEdit = findViewById(R.id.age);
 btn = findViewById(R.id.btn);
// Set up button click listener
 btn.setOnClickListener(new View.OnClickListener() {
 @Override
 public void onClick(View v) {
 String name = nameEdit.getText().toString().trim();
 String a = ageEdit.getText().toString().trim();
// Validate input fields
 if (!name.isEmpty() && !a.isEmpty()) {
 try {
 int age = Integer.parseInt(a);
 SQLiteDatabase db = help.getWritableDatabase();
// Insert data into the database
 ContentValues cv = new ContentValues();
 cv.put("name", name);
 cv.put("age", age);
 long rowId = db.insert("users", null, cv);
// Check if the insert was successful
 if (rowId != -1) {
 nameEdit.setText("");
 ageEdit.setText("");
 Toast.makeText(MainActivity.this, "Work Done!!!",
 Toast.LENGTH_SHORT).show();
 } else {
 Toast.makeText(MainActivity.this, "Error",
 Toast.LENGTH_SHORT).show();
 }
 db.close();
 } catch (NumberFormatException e) {
Toast.makeText(MainActivity.this, "Invalid age",
Toast.LENGTH_SHORT).show();
 }
 } else {
 Toast.makeText(MainActivity.this, "Please fill all fields",
 Toast.LENGTH_SHORT).show();
 }
```

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```
});}}
```

DBHelper.java

```
package com.example.pract8;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.content.Context;
public class DBHelper extends SQLiteOpenHelper {
 static String dbname = "details";
 static int version = 1;
 public DBHelper(Context context) {
 super(context, dbname, null, version);
 }
 @Override
 public void onCreate(SQLiteDatabase db) {
 String query = "CREATE TABLE users(id INTEGER PRIMARY KEY
AUTOINCREMENT, name TEXT, age INTEGER)";
 db.execSQL(query);}
 @Override
 public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
 db.execSQL("DROP TABLE IF EXISTS users");
 onCreate(db);
 }}
```

OUTPUT:

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PRACTICAL NO: 09

AIM: Create an android to create new emp table in SQLite with fields as name, age, designation then insert records in it and show records on screen

CODE:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
   xmlns:android="http://schemas.android.com/apk/res/android"
   android:orientation="vertical"
   android:gravity="center"
   android:layout_width="match_parent"
   android:layout_height="match_parent">
   <EditText
      android:id="@+id/edtName"
      android:layout_width="match_parent
      "
      android:layout_height="wrap_content
      " android:ems="10"
      android:layout_marginHorizontal="3
      4dp" android:inputType="text"
      android:hint="Enter Name" />
   <EditText
      android:id="@+id/edtAge"
      android:layout_width="match_parent
      "
      android:layout_height="wrap_content
      " android:ems="10"
      android:layout_marginHorizontal="3
      4dp" android:inputType="text"
      android:hint="Enter Age" />
   <EditText
      android:id="@+id/edtDesignation"
      android:layout_width="match_parent
      "
      android:layout_height="wrap_content
      " android:ems="10"
      android:layout_marginHorizontal="3
      4dp" android:inputType="text"
      android:hint="Enter Designation" />
   <Button
      android:id="@+id/btnAdd"
      android:layout_width="wrap_content
      "
      android:layout_height="wrap_content
      " android:text="Add" />
   <Button
      android:id="@+id/btnShow"
      android:layout_width="wrap_content
      "
      android:layout_height="wrap_content
```

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```
    “
    android:text="Show" />
  <TextView
    android:id="@+id/result"
    android:layout_width="match_parent
    "
    android:layout_height="wrap_content
    " />
  <TableLayout
    android:id="@+id/tableLayout"
    android:layout_width="match_parent
    "
    android:layout_height="wrap_content
    " android:padding="16dp"
    android:orientation="vertical">
    <!-- Add header row or any fixed rows if needed -->
    <TableRow>
      <TextView
        android:id="@+id/headName"
        android:layout_width="wrap_cont
        ent"
        android:layout_height="wrap_cont
        ent"
        android:paddingEnd="56dp"/>
      <TextView
        android:id="@+id/headAge"
        android:layout_width="wrap_cont
        ent"
        android:layout_height="wrap_cont
        ent"
        android:paddingEnd="36dp"/>
      <TextView
        android:id="@+id/headDesignation"
        android:layout_width="wrap_content
        "
        android:layout_height="wrap_content
        " />
    </TableRow>
    <!-- Data rows will be added dynamically -->
  </TableLayout>
</LinearLayout>
```

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MainActivity.java

```
package com.example.practical9;
import
android.content.ContentValues;
import
android.database.sqlite.SQLiteDatabase;
import android.os.Bundle;
import android.view.View;
import
android.widget.Button;
import
android.widget.EditText;
import
android.widget.TableLayout;
import android.widget.TableRow;
import android.widget.Toast;
import
androidx.appcompat.app.AppCompatActivity;
import java.util.ArrayList; // For ArrayList
import android.database.Cursor; // For Cursor
import android.widget.TextView; // For
TextView
public class MainActivity extends
    AppCompatActivity { EditText nameEdit, ageEdit,
    designationEdit; TextView resultView;
    TextView headName;
    TextView headAge;
    TextView
    headDesignation; Button
    addBtn, showBtn;
    DBHelper help = new DBHelper(this);
    TableLayout tableLayout;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);// Initialize the UI
        components nameEdit = findViewById(R.id.edtName);
        ageEdit = findViewById(R.id.edtAge);
        designationEdit =
        findViewById(R.id.edtDesignation); addBtn =
        findViewById(R.id.btnAdd);
        showBtn = findViewById(R.id.btnShow);
        resultView = findViewById(R.id.result);
        headName =
        findViewById(R.id.headName); headAge
        = findViewById(R.id.headAge);
        headDesignation =
        findViewById(R.id.headDesignation); tableLayout =
        findViewById(R.id.tableLayout);
// Set up button click listener
        addBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
```

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```
            String name =
            nameEdit.getText().toString().trim(); String ageS
            = ageEdit.getText().toString().trim();
            String designation = designationEdit.getText().toString().trim();
// Validate input fields
if (!name.isEmpty() && !ageS.isEmpty()) { try {
                int age = Integer.parseInt(ageS);
                SQLiteDatabase db = help.getWritableDatabase();
// Insert data into the database
                ContentValues cv = new ContentValues();
                cv.put("name", name);
                cv.put("age", age);
                cv.put("designation",
                designation);
                long rowId = db.insert("emp", null, cv);
// Check if the insert was successful
                if (rowId != -1) {
                   nameEdit.setText("");
                   ageEdit.setText("");
                   designationEdit.setText("
                   ");
                   Toast.makeText(MainActivity.this, "Work Done!!!",
                         Toast.LENGTH_SHORT).show();
                } else {
                   Toast.makeText(MainActivity.this, "Error",
                         Toast.LENGTH_SHORT).show();
                }
                db.close();
             } catch (NumberFormatException e) {
                Toast.makeText(MainActivity.this, "Invalid age",
Toast.LENGTH_SHORT).show();
             }
          } else {
             Toast.makeText(MainActivity.this, "Please fill all
                   fields", Toast.LENGTH_SHORT).show();
       }
     }});
      // Button to show data
      showBtn.setOnClickListener(v -> {
         // Remove all rows except the first one (header
         row) if (tableLayout.getChildCount() > 1) {
            tableLayout.removeViews(1, tableLayout.getChildCount() - 1);
         }
         SQLiteDatabase db = help.getReadableDatabase();
         Cursor cursor = db.rawQuery("SELECT * FROM emp",
         null); if (cursor.getCount() > 0) {
            while (cursor.moveToNext()) {
               // Extract data from each
               row int id =
               cursor.getInt(0);
               String name =
               cursor.getString(1); int age =
               cursor.getInt(2);
```

```
            String designation = cursor.getString(3);
                headName.setText("Name");
        headAge.setText("Age");
        headDesignation.setText("Designation");
            // Create a new TableRow for each row of data
            TableRow tableRow = new TableRow(this);
            // Create TextViews for each field and set their text
            TextView nameTextView = new TextView(this);
            nameTextView.setText(name);
            TextView ageTextView = new TextView(this);
            ageTextView.setText(String.valueOf(age));
            TextView designationTextView = new TextView(this);
            designationTextView.setText(designation);
            // Add TextViews to the TableRow
            tableRow.addView(nameTextView);
            tableRow.addView(ageTextView);
            tableRow.addView(designationTextVi
            ew);

            // Add TableRow to the
            TableLayout
            tableLayout.addView(tableRow)
            ;
          }
        } else {
           resultView.setText("No data found.");
        }
        cursor.clo
        se();
        db.close();
      });
   }
}
```

DBHelper.java

```
package
com.example.practical9;
import
android.content.Context;
import
android.database.sqlite.SQLiteDatabase;
import
android.database.sqlite.SQLiteOpenHelper;
import android.os.Bundle;
import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class DBHelper extends
```

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```
SQLiteOpenHelper { static String dbname =
   "employee";
   static int version = 4;
   public DBHelper(Context context){
      super(context, dbname, null, version);
   }
   @Override
   public void onCreate(SQLiteDatabase db){
      String query = "Create Table emp(id INTEGER PRIMARY KEY AUTOINCREMENT,
name TEXT, age INTEGER, designation TEXT)";
      db.execSQL(query);
   }
   @Override
   public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion){
      db.execSQL("DROP TABLE IF EXISTS emp");
      onCreate(db);
   }
}
```

OUTPUT: