

EX NO: 1(A)

DATE:

**DEVELOP AN ANDROID APPLICATION TO FIND THE LARGEST
AMONG THREE NUMBERS**

MainActivity.java

```
package com.example.greatestamongthree;

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText mEditText1;
    private EditText mEditText2;
    private EditText mEditText3;
    private TextView mTextViewResult;
    private Button mButtonabc;
    @SuppressWarnings("MissingInflatedId")

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        mEditText1 = findViewById(R.id.EditText_number_1);
        mEditText2 = findViewById(R.id.EditText_number_2);
        mEditText3 = findViewById(R.id.EditText_number_3);
        mTextViewResult = findViewById(R.id.textView_result);
        mButtonabc = findViewById(R.id.buttonabc);
        mButtonabc.setOnClickListener(new View.OnClickListener() {
            @Override public void onClick(View v) {
                if (mEditText1.getText().toString().length() == 0) {
```

```

        mEditText1.setText("0");
    }
    if (mEditText2.getText().toString().length() == 0) {
        mEditText2.setText("0");
    }
    if (mEditText3.getText().toString().length() == 0) {
        mEditText3.setText("0");
    }
    int num1 = Integer.parseInt(mEditText1.getText().toString());
    int num2 = Integer.parseInt(mEditText2.getText().toString());
    int num3 = Integer.parseInt(mEditText3.getText().toString());
    int largest = (num3 > (num1 > num2 ? num1 : num2)) ? num3 : (num1 > num2 ?
num1 : num2);
    mTextViewResult.setText(String.valueOf(largest));
}
});
}
}

```

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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_centerInParent="true" />

```

```
<TextView
    android:id="@+id/textView_1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Enter number 1" />
```

```
<EditText
    android:id="@+id/EditText_number_1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:contentDescription="Enter the Number"
    android:inputType="number"
    android:minHeight="48dp"
    tools:ignore="ExtraText,SpeakableTextPresentCh" />
```

```
<TextView
    android:id="@+id/textView_2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Enter number 2" />
```

```
<EditText
    android:id="@+id/EditText_number_2"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:contentDescription="Enter the Number"
    android:inputType="number"
    android:minHeight="48dp"
    tools:ignore="ExtraText,SpeakableTextPresentCh" />
```

```
<TextView
    android:id="@+id/textView_3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Enter number 3" />
```

```
<EditText
    android:id="@+id/EditText_number_3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

```
android:contentDescription="Enter the Number"
android:inputType="number"
android:minHeight="48dp"
tools:ignore="ExtraText,SpeakableTextPresentCh" />
```

```
<TextView
    android:id="@+id/textView_result"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="left"
    android:layout_marginTop="16dp"
    android:text="0"
    android:textColor="@android:color/black"
    android:textSize="50sp" />
```

```
<Button
    android:id="@+id/buttonabc"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Find the Greatest"
    android:layout_gravity="left"
    android:layout_marginTop="32dp"/>
```

```
</LinearLayout>
```

Output:

RISHITHKUMAR 212205076

Enter number 1
|

Enter number 2

Enter number 3

0

Find the Greatest

RISHITHKUMAR 212205076

Enter number 1
76

Enter number 2
88

Enter number 3
99

0

Find the Greatest

1	2	3	-
4	5	6	=
7	8	9	✕
,	0	.	✓

RISHITHKUMAR 212205076

Enter number 1
76

Enter number 2
88

Enter number 3
99

99

Find the Greatest

EX NO: 1(B)

DATE:

**DEVELOP AN ANDROID APPLICATION TO FIND THE SMALLEST
AMONG TWO NUMBERS**

MainActivity.java

```
package com.example.smallestamongtwonumbers;

import android.annotation.SuppressLint;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText mEditText1;
    private EditText mEditText2;
    private TextView mTextViewResult;
    private Button mButtonabc;
    @SuppressWarnings("MissingInflatedId")

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        mEditText1 = findViewById(R.id.EditText_number_1);
        mEditText2 = findViewById(R.id.EditText_number_2);
        mTextViewResult = findViewById(R.id.textView_result);
        mButtonabc = findViewById(R.id.button2);
        mButtonabc.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                if (mEditText1.getText().toString().length() == 0) {
                    mEditText1.setText("0");
```

```

    }
    if (mEditText2.getText().toString().length() == 0) {
        mEditText2.setText("0");
    }
    int num1 = Integer.parseInt(mEditText1.getText().toString());
    int num2 = Integer.parseInt(mEditText2.getText().toString());
    int smallest = num1 < num2 ? num1 : num2;
    mTextViewResult.setText(String.valueOf(smallest));
}
});
}
}

```

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:orientation="vertical"
    android:padding="16dp"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_centerInParent="true" />

    <TextView
        android:id="@+id/textView_1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Enter number 1" />

    <EditText

```

```
android:id="@+id/EditText_number_1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:contentDescription="Enter the Number"
android:inputType="number"
android:minHeight="48dp"
tools:ignore="ExtraText,SpeakableTextPresentCh" />
```

<TextView

```
android:id="@+id/textView_2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="Enter number 2" />
```

<EditText

```
android:id="@+id/EditText_number_2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:contentDescription="Enter the Number"
android:inputType="number"
android:minHeight="48dp"
tools:ignore="ExtraText,SpeakableTextPresentCh" />
```

<TextView

```
android:id="@+id/textView_result"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="left"
android:layout_marginTop="16dp"
android:text="0"
android:textColor="@android:color/black"
android:textSize="50sp" />
```

<Button

```
android:id="@+id/button2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Find the Smallest"
android:layout_gravity="left"
android:layout_marginTop="32dp"/>
```


</LinearLayout>

Output:

RISHITHKUMAR 212205076

Enter number 1

Enter number 2

0

Find the Smallest

RISHITHKUMAR 212205076

Enter number 1

44

Enter number 2

33

0

Find the Smallest

1 2 3 -

4 5 6 _

7 8 9 ×

, 0 . ✓

RISHITHKUMAR 212205076

Enter number 1

44

Enter number 2

33

33

Find the Smallest

EX NO: 2

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USES GUI
COMPONENTS FONTS AND COLORS**

MainActivity.java

```
package com.example.guicomponents;
```

```
import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
    int ch = 1;
    float font = 30;
```

```
@Override
```

```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    TextView tvName = findViewById(R.id.tvName);
    tvName.setText("RISHITHKUMAR 212205076");
    final TextView t = findViewById(R.id.textview);
    Button b1 = findViewById(R.id.button1);
    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            t.setTextSize(font);
            font = font + 5;
            if (font == 50) {
                font = 30;
            }
        }
    });
    Button b2 = findViewById(R.id.button2);
```

```

b2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        switch (ch) {
            case 1:
                t.setTextColor(Color.RED);
                break;
            case 2:
                t.setTextColor(Color.GREEN);
                break;
            case 3:
                t.setTextColor(Color.BLUE);
                break;
            case 4:
                t.setTextColor(Color.CYAN);
                break;
            case 5:
                t.setTextColor(Color.YELLOW);
                break;
            case 6:
                t.setTextColor(Color.MAGENTA);
                break;
        }
        ch++;
        if (ch == 7) {
            ch = 1;
        }
    }
});
}
}

```

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
    android:id="@+id/tvName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textSize="24sp"
    android:textStyle="bold"
    android:layout_centerInParent="true" />
```

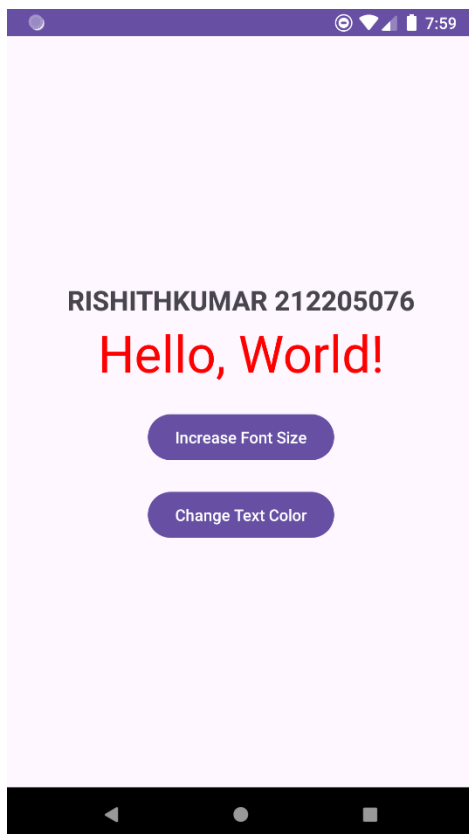
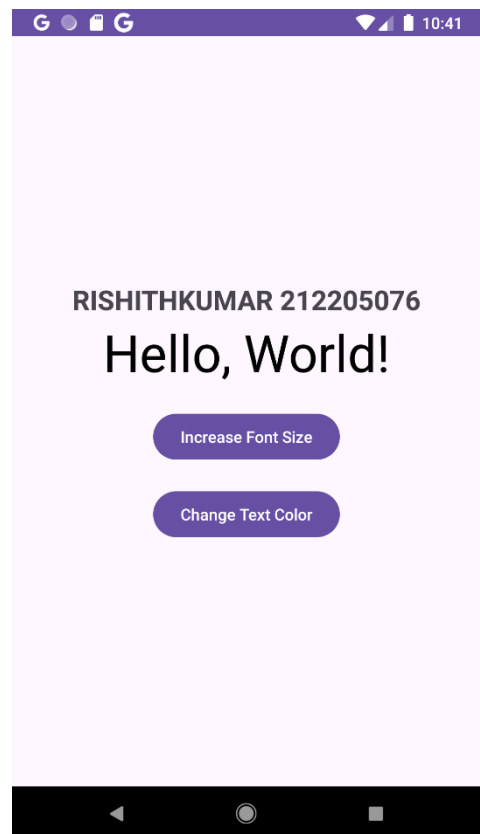
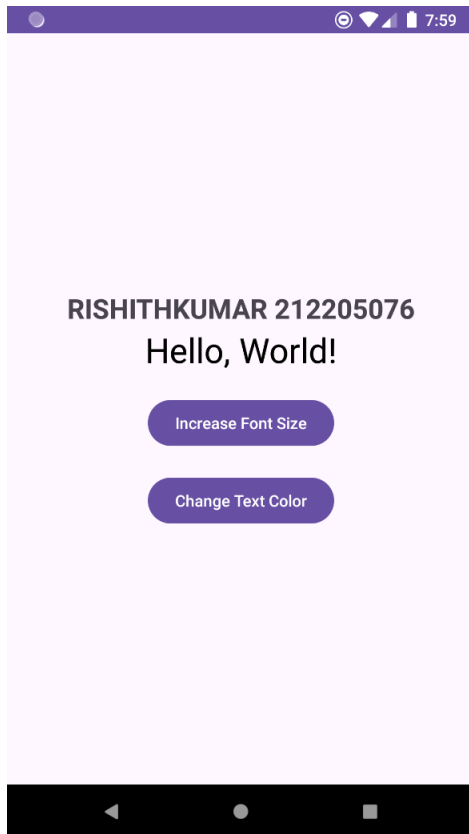
```
<TextView
    android:id="@+id/textview"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Hello, World!"
    android:textSize="30sp"
    android:textColor="@android:color/black"
    android:layout_marginBottom="20dp"/>
```

```
<Button
    android:id="@+id/button1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Increase Font Size"
    android:layout_marginBottom="20dp"/>
```

```
<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Change Text Color"/>
```

```
</LinearLayout>
```

Output:



EX NO: 3

DATE:

**DEVELOP AN ANDROID APPLICATION TO DRAW BASIC
GRAPHICAL PRIMITIVES**

MainActivity.java

```
package com.example.basicgraphicalprimitives;

import android.app.Activity;
import android.graphics.Bitmap;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.graphics.drawable.BitmapDrawable;
import android.os.Bundle;
import android.widget.ImageView;
import android.widget.TextView;

public class MainActivity extends Activity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        Bitmap bg = Bitmap.createBitmap(720, 1280, Bitmap.Config.ARGB_8888);
        ImageView i = findViewById(R.id.image_view);
        i.setBackgroundDrawable(new BitmapDrawable(getResources(), bg));
        Canvas canvas = new Canvas(bg);
        Paint paint = new Paint();
        paint.setColor(Color.BLUE);
        paint.setTextSize(50);
        canvas.drawText("Rectangle", 420, 150, paint);
        canvas.drawRect(400, 200, 600, 500, paint); // Smaller rectangle with adjusted size
        canvas.drawText("Circle", 120, 150, paint);
        canvas.drawCircle(200, 400, 120, paint); // Smaller circle with radius 75
        canvas.drawText("Square", 120, 800, paint);
        canvas.drawRect(50, 850, 250, 1050, paint); // Smaller square with adjusted size
    }
}
```

```
        canvas.drawText("Line", 480, 800, paint);
        canvas.drawLine(520, 850, 520, 1050, paint); // Same line coordinates
    }
}
```

Activity main.xml

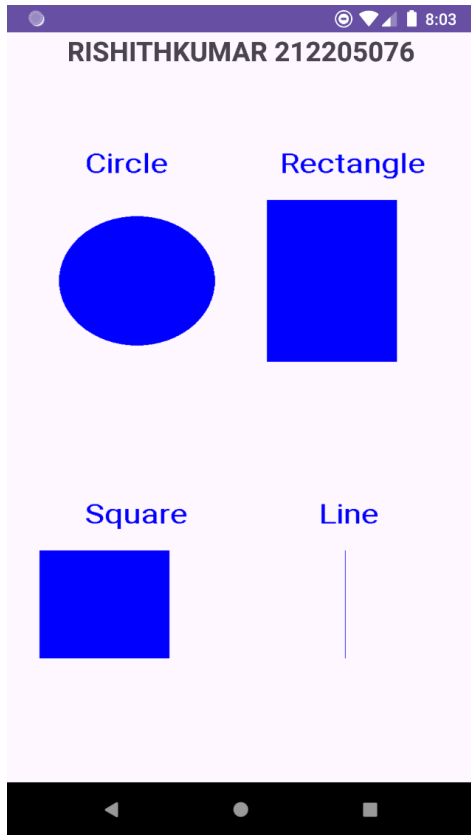
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_marginBottom="20dp"
        android:gravity="center"/>

    <ImageView
        android:id="@+id/image_view"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_gravity="center"
        android:contentDescription="Drawing Canvas"/>

</LinearLayout>
```

Output:



EX NO: 4

DATE:

**DEVELOP AN ANDROID APPLICATION TO DISPLAY BASIC
INFORMATION**

MainActivity.java

```
package com.example.basicinformation;

import android.app.Activity;
import android.os.Bundle;
import android.text.method.ScrollingMovementMethod;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends Activity {
    private Button b;
    private EditText sname, squal, snumber;
    private TextView tv;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView title = findViewById(R.id.title);
        title.setText("RISHITHKUMAR 212205076");

        b = findViewById(R.id.click);
        tv = findViewById(R.id.display);
        sname = findViewById(R.id.name);
        squal = findViewById(R.id.qual);
        snumber = findViewById(R.id.mobilenos);

        tv.setMovementMethod(new ScrollingMovementMethod());
        b.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = sname.getText().toString();
```

```

        String qual = squal.getText().toString();
        String number = snumber.getText().toString();
        tv.setText("Your Details:\n\nName: " + name + "\nQualification: " + qual +
"\nContact Number: " + number + "\n");
    }
});
}
}

```

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_horizontal"
    android:orientation="vertical"
    android:padding="16dp">

    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:layout_marginBottom="20dp"
        android:text="Enter Your Details"
        android:textAppearance="?android:attr/textAppearanceLarge"
        android:textStyle="bold" />

    <EditText
        android:id="@+id/name"
        android:layout_width="300dp"
        android:layout_height="wrap_content"
        android:hint="Your Name"
        android:inputType="textPersonName"
        android:ems="10">
        <requestFocus />
    </EditText>

```

```
<EditText
    android:id="@+id/qual"
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"
    android:hint="Your Qualification"
    android:inputType="text" />
```

```
<EditText
    android:id="@+id/mobileno"
    android:layout_width="300dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="16dp"

    android:hint="Your Contact Number"
    android:inputType="phone" />
```

```
<Button
    android:id="@+id/click"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    android:text="Display Details" />
```

```
<TextView
    android:id="@+id/display"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="24dp"
    android:scrollbars="vertical"
    android:text="Your Details will be displayed here..."
    android:textSize="16sp" />
```

```
</LinearLayout>
```

Output:

RISHITHKUMAR 212205076

Your Name

Your Qualification

Your Contact Number

DISPLAY DETAILS

Your Details will be displayed here...

RISHITHKUMAR 212205076

Rishithkumar

UG

8939262550

DISPLAY DETAILS

Your Details will be displayed here...

1 2 ABC 3 DEF -

4 GHI 5 JKL 6 MNO ↵

7 PRQS 8 TUV 9 WXYZ ✕

* # 0 + . ✓

RISHITHKUMAR 212205076

Rishithkumar

UG

8939262550

DISPLAY DETAILS

Your Details:

Name: Rishithkumar
Qualification: UG
Contact Number: 8939262550

EX NO: 5

DATE:

DEVELOP AN ANDROID APPLICATION OF RADIO BUTTON

MainActivity.java

```
package com.example.radiobutton;

import android.os.Bundle;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private TextView resultTextView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        RadioGroup radioGroup = findViewById(R.id.radioGroup);
        resultTextView = findViewById(R.id.resultTextView);
        radioGroup.setOnCheckedChangeListener(new
        RadioGroup.OnCheckedChangeListener() {

            @Override
            public void onCheckedChanged(RadioGroup group, int checkedId) {
                RadioButton selectedRadioButton = findViewById(checkedId);
                String selectedOption = selectedRadioButton.getText().toString();
                resultTextView.setText("Selected Option: " + selectedOption);
            }
        });
    }
}
```

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
    android:id="@+id/tvName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textSize="24sp"
    android:textStyle="bold"
    android:layout_toStartOf="@id/tvName" />
```

```
<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Choose an Option:"
    android:textSize="18sp"
    android:layout_marginBottom="16dp" />
```

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

```
<RadioButton
    android:id="@+id/radioOption1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Option 1" />
```

```
<RadioButton
    android:id="@+id/radioOption2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Option 2" />
```

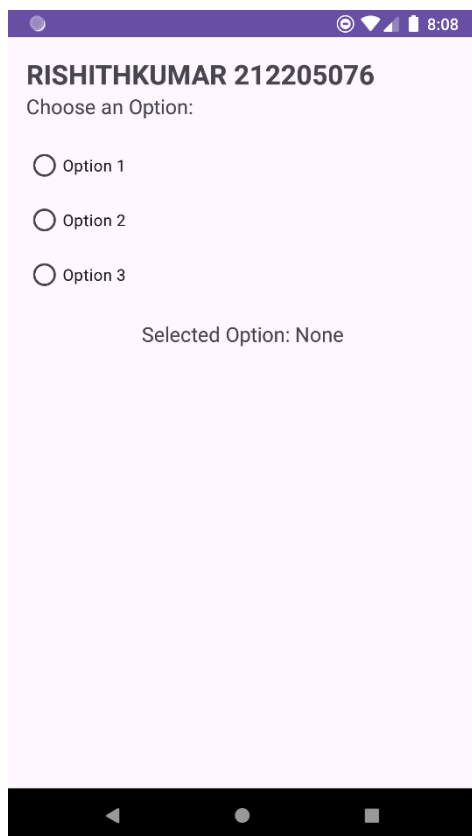
```
<RadioButton
    android:id="@+id/radioOption3"
```

```
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Option 3" />
    </RadioGroup>
```

```
<TextView
    android:id="@+id/resultTextView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Selected Option: None"
    android:textSize="18sp"
    android:layout_marginTop="16dp"
    android:gravity="center" />
```

```
</LinearLayout>
```

Output:



A screenshot of an Android application interface. At the top, a purple status bar shows the time as 8:08. Below it, a white header bar contains the text "RISHITHKUMAR 212205076". The main content area is white and contains the text "Choose an Option:" followed by three radio button options: "Option 1", "Option 2", and "Option 3". All three options are unselected. At the bottom, a white bar displays "Selected Option: None". The entire screen is framed by a black border.

RISHITHKUMAR 212205076

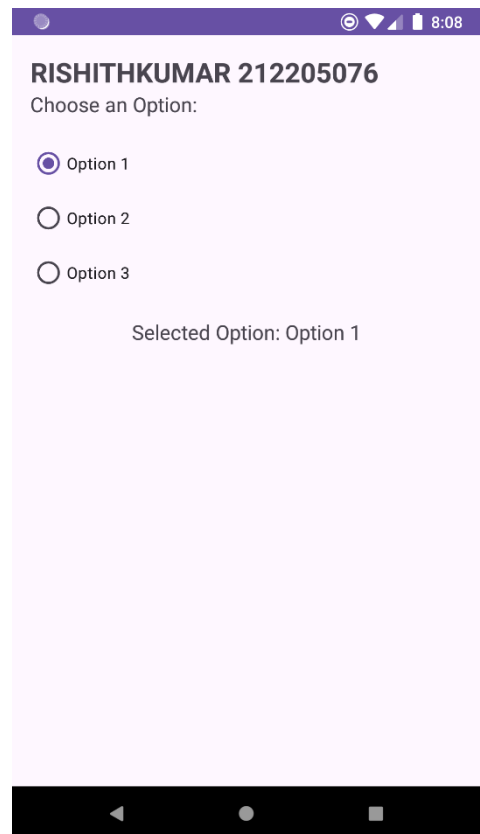
Choose an Option:

☐ Option 1

☐ Option 2

☐ Option 3

Selected Option: None



A screenshot of the same Android application interface as the first one, but with "Option 1" selected. The radio button for "Option 1" is now filled with a purple dot. The text "Selected Option: Option 1" is displayed at the bottom of the white content area. The status bar, header, and footer remain the same.

RISHITHKUMAR 212205076

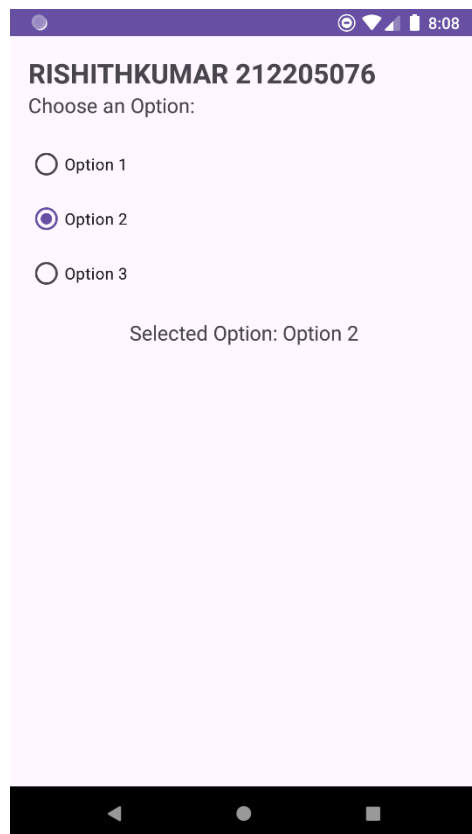
Choose an Option:

☒ Option 1

☐ Option 2

☐ Option 3

Selected Option: Option 1



A screenshot of the same Android application interface, but with "Option 2" selected. The radio button for "Option 2" is now filled with a purple dot. The text "Selected Option: Option 2" is displayed at the bottom of the white content area. The status bar, header, and footer remain the same.

RISHITHKUMAR 212205076

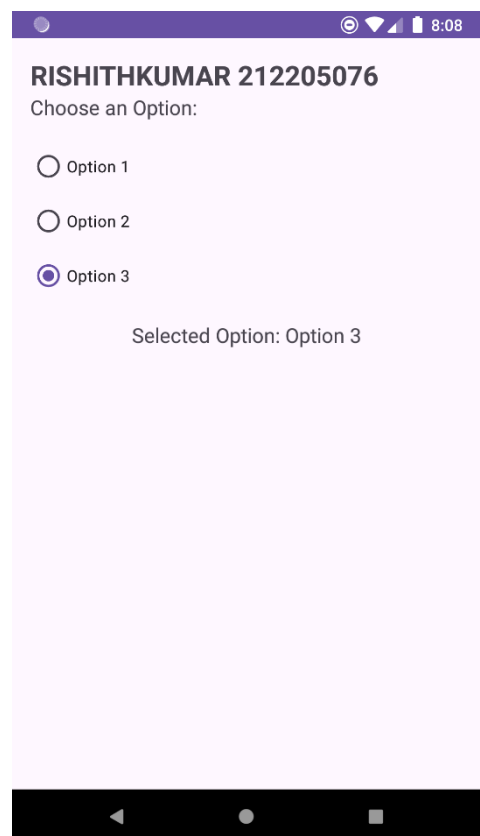
Choose an Option:

☐ Option 1

☒ Option 2

☐ Option 3

Selected Option: Option 2



A screenshot of the same Android application interface, but with "Option 3" selected. The radio button for "Option 3" is now filled with a purple dot. The text "Selected Option: Option 3" is displayed at the bottom of the white content area. The status bar, header, and footer remain the same.

RISHITHKUMAR 212205076

Choose an Option:

☐ Option 1

☐ Option 2

☒ Option 3

Selected Option: Option 3

EX NO: 6

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USING IMAGE
BUTTON**

MainActivity.java

```
package com.example.imagebutton;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.widget.ImageButton;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private ImageButton pcasImageButton;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView nameHolder = findViewById(R.id.nameHolder);
        nameHolder.setText("RISHITHKUMAR 212205076")
        pcasImageButton = findViewById(R.id.imageButton);
        pcasImageButton.setOnClickListener(view -> {
            Toast.makeText(MainActivity.this, "Welcome to Patrician College",
            Toast.LENGTH_SHORT).show();

            String url = "https://patriciancollege.ac.in";
            Intent intent = new Intent(Intent.ACTION_VIEW);
            intent.setData(Uri.parse(url));
            startActivity(intent);
        });
    }
}
```

Activity main.xml

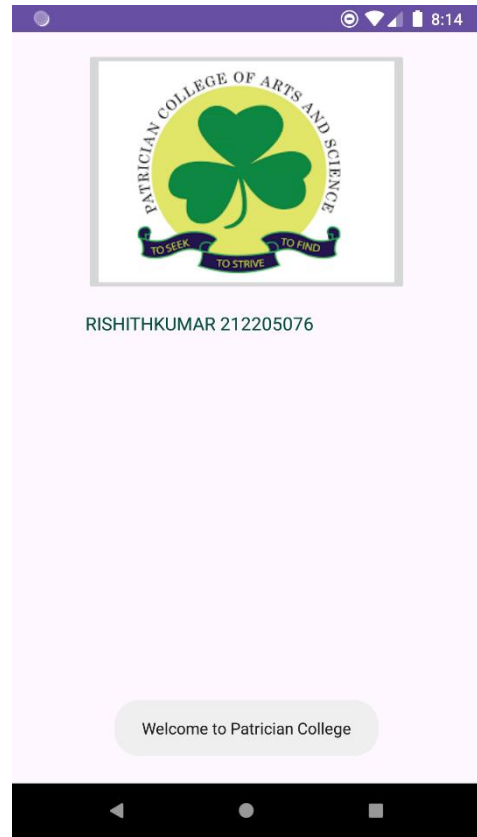
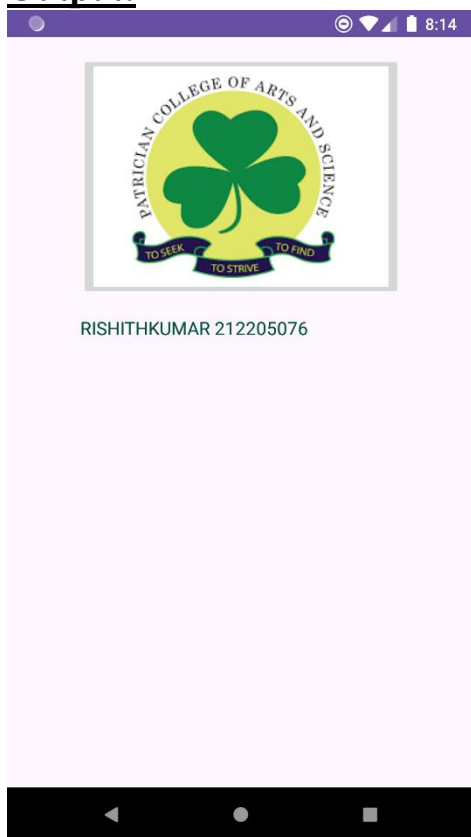
```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    android:gravity="center">
```

```
<TextView
    android:id="@+id/nameHolder"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_marginBottom="377dp"
    android:text="RISHITHKUMAR 212205076"
    android:textColor="#004D40"
    android:textSize="16sp" />
```

```
<ImageButton
    android:id="@+id/imageButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:srcCompat="@drawable/download" />
```

```
</RelativeLayout>
```

Output:



EX NO: 7

DATE:

DEVELOP AN ANDROID APPLICATION FOR ALERT DIALOG BOX

MainActivity.java

```
package com.example.alertdialohbox;

import android.content.DialogInterface;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        Button showDialogButton = findViewById(R.id.showDialogButton);

        showDialogButton.setOnClickListener(v -> {
            AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);
            builder.setTitle("Confirmation");
            builder.setMessage("Do you want to proceed?");
            builder.setPositiveButton("Yes", (dialog, which) ->
                Toast.makeText(MainActivity.this, "You clicked yes",
                Toast.LENGTH_SHORT).show()
            );
            builder.setNegativeButton("No", (dialog, which) ->
                Toast.makeText(MainActivity.this, "You clicked cancel",
                Toast.LENGTH_SHORT).show()
            );
            builder.create().show();
        });
    }
}
```

}

Activity main.xml

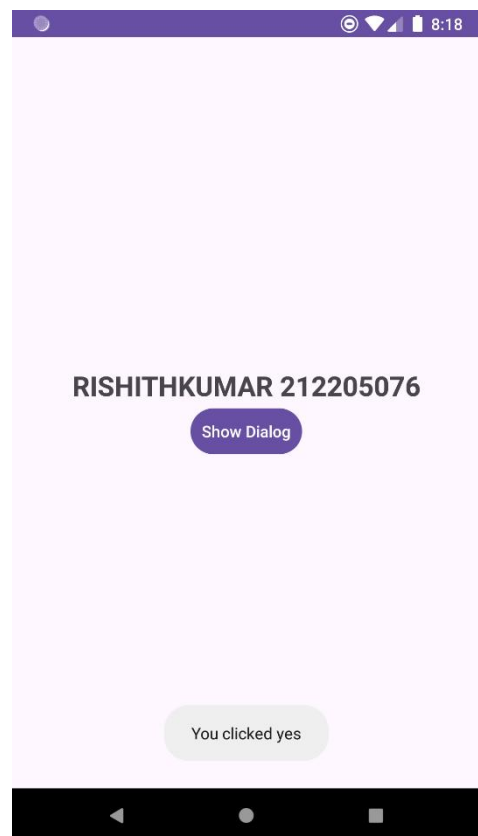
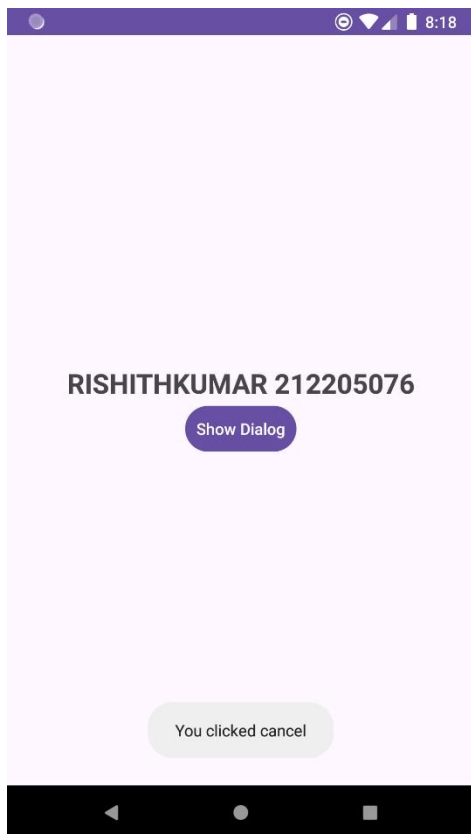
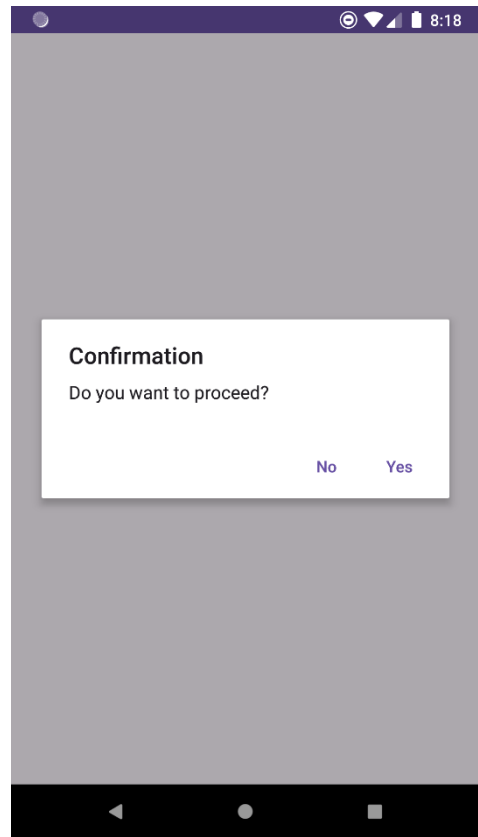
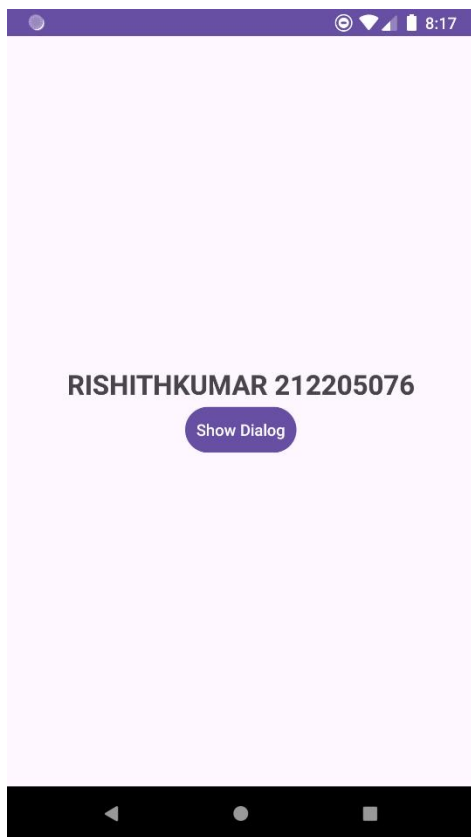
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center"
    android:padding="16dp">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_alignStart="@id/tvName" />

    <Button
        android:id="@+id/showDialogButton"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Show Dialog"
        android:padding="10dp"/>

</LinearLayout>
```

Output:



EX NO: 8

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USING LAYOUT
MANAGER**

MainActivity.java

```
package com.example.layoutmanager;

import android.os.Bundle;
import android.widget.Button;
import androidx.appcompat.app.AppCompatActivity;
import androidx.appcompat.app.AppCompatActivity;
import androidx.recyclerview.widget.GridLayoutManager;
import androidx.recyclerview.widget.LinearLayoutManager;
import androidx.recyclerview.widget.RecyclerView;
import androidx.recyclerview.widget.StaggeredGridLayoutManager;
import java.util.ArrayList;
import java.util.List;

public class MainActivity extends AppCompatActivity {
    private RecyclerView recyclerView;
    private MyAdapter Adapter;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        recyclerView = findViewById(R.id.recyclerView);
        List<String> items = getItems();
        Adapter = new MyAdapter(items);
        recyclerView.setAdapter(Adapter);
        recyclerView.setLayoutManager(new LinearLayoutManager(this));

        Button linearButton = findViewById(R.id.linearButton);
        Button gridButton = findViewById(R.id.gridButton);
        Button staggeredButton = findViewById(R.id.staggeredButton);
        linearButton.setOnClickListener(v -> recyclerView.setLayoutManager(new
            LinearLayoutManager(this)));
        gridButton.setOnClickListener(v -> recyclerView.setLayoutManager(new
```

```

        GridLayoutManager(this, 3)));
        staggeredButton.setOnClickListener(v -> recyclerView.setLayoutManager(new
            StaggeredGridLayoutManager(6, StaggeredGridLayoutManager.VERTICAL)));
    }
    private List<String> getItems() {
        List<String> items = new ArrayList<>();
        for (int i = 1; i <= 6; i++) {
            items.add(" ");
        }
        return items;
    }
}

```

MyAdapter.java

```

package com.example.layoutmanger;

import android.view.LayoutInflater;
import android.view.View;
import android.view.ViewGroup;
import android.widget.TextView;
import androidx.annotation.NonNull;
import androidx.recyclerview.widget.RecyclerView;
import java.util.List;

public class MyAdapter extends RecyclerView.Adapter<MyAdapter.MyViewHolder> {
    private final List<String> items;
    public MyAdapter(List<String> items) {
        this.items = items;
    }
    @NonNull
    @Override
    public MyViewHolder onCreateViewHolder(@NonNull ViewGroup parent, int viewType)
    {
        View view = LayoutInflater.from(parent.getContext()).inflate(R.layout.item_view,
        parent,
            false);
        return new MyViewHolder(view);
    }
    @Override
    public void onBindViewHolder(@NonNull MyViewHolder holder, int position) {
        holder.textView.setText(items.get(position));
    }
}

```



```

    }
    @Override
    public int getItemCount() {
        return items.size();
    }
    public static class MyViewHolder extends RecyclerView.ViewHolder {
        TextView textView;
        public MyViewHolder(@NonNull View itemView) {
            super(itemView);
            textView = itemView.findViewById(R.id.itemTextView);
        }
    }
}

```

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">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:gravity="center">

        <Button
            android:id="@+id/linearButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Linearvertical" />

        <Button
            android:id="@+id/gridButton"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"

```

```
        android:text="GridLayout"
        android:layout_marginStart="8dp" />
```

```
<Button
    android:id="@+id/staggeredButton"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="linear horizontal"
    android:layout_marginStart="8dp" />
</LinearLayout>
```

```
<androidx.recyclerview.widget.RecyclerView
    android:id="@+id/recyclerView"
    android:layout_width="match_parent"
    android:layout_height="0dp"
    android:layout_weight="1"
    android:layout_marginTop="16dp" />
```

```
<TextView
    android:id="@+id/nameTextView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="RISHITHKUMAR 212205076"
    android:gravity="center"
    android:textSize="18sp"
    android:textStyle="bold"
    android:layout_marginTop="16dp" />
```

```
</LinearLayout>
```

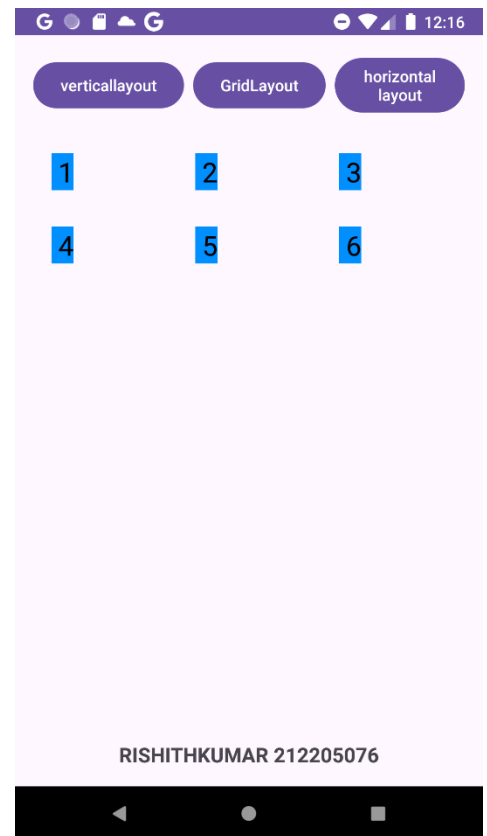
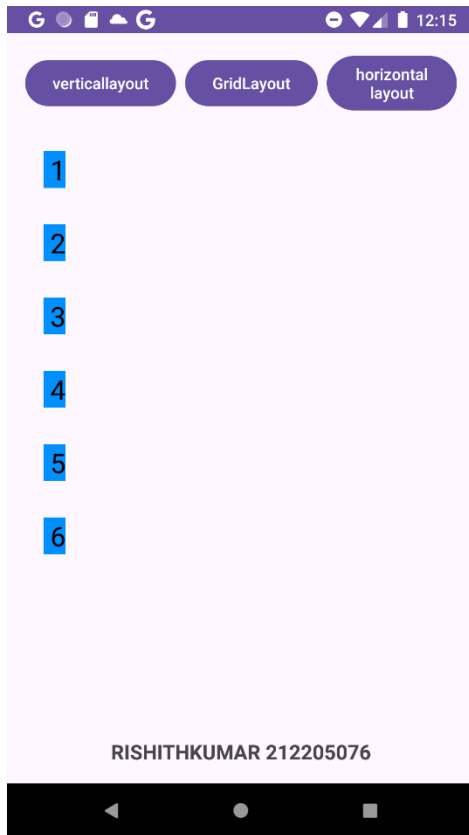
Itemsview.xml

```
<?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="wrap_content"
    android:orientation="horizontal"
    android:padding="16dp">

    <TextView
        android:id="@+id/itemTextView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="#008FFF"
        android:textColor="#008FFF"
        android:textSize="60sp" />

</LinearLayout>
```

Output:



EX NO: 9(A)

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USES LINEAR
LAYOUT VERTICAL**

MainActivity.java

```
package com.example.linearlayoutvertical;

import android.os.Bundle;
import android.widget.TextView;
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);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        findViewById(R.id.submitButton).setOnClickListener(v ->
            Toast.makeText(MainActivity.this, "Button Clicked!",
                Toast.LENGTH_SHORT).show());
    }
}
```

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
        android:id="@+id/tvName"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textSize="24sp"
android:textStyle="bold"
android:layout_centerInParent="true" />
```

```
<TextView
```

```
    android:id="@+id/titleText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:padding="16dp"
    android:text="Welcome to Linear Layout Example"
    android:textColor="#000"
    android:textSize="18sp" />
```

```
<EditText
```

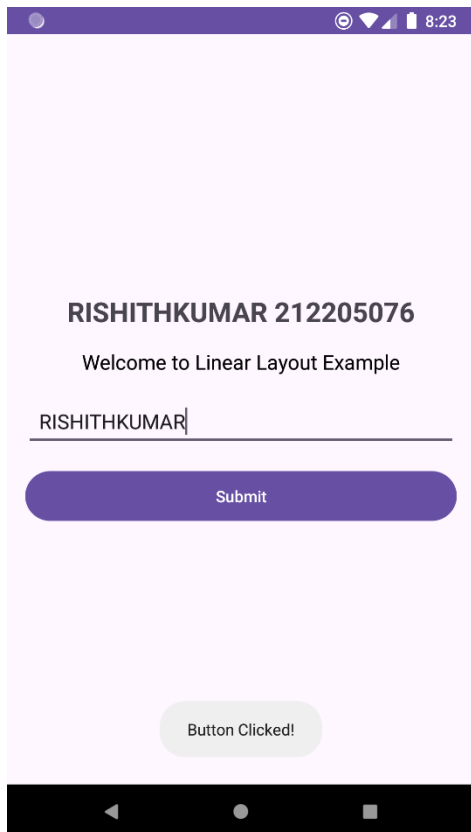
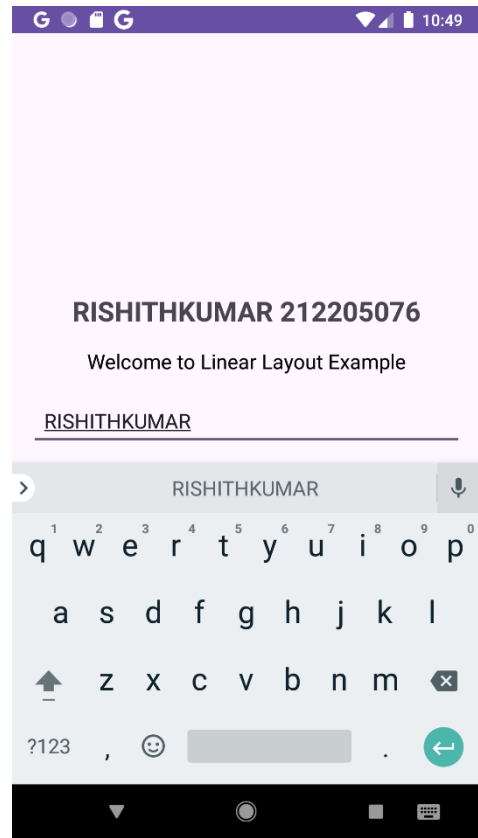
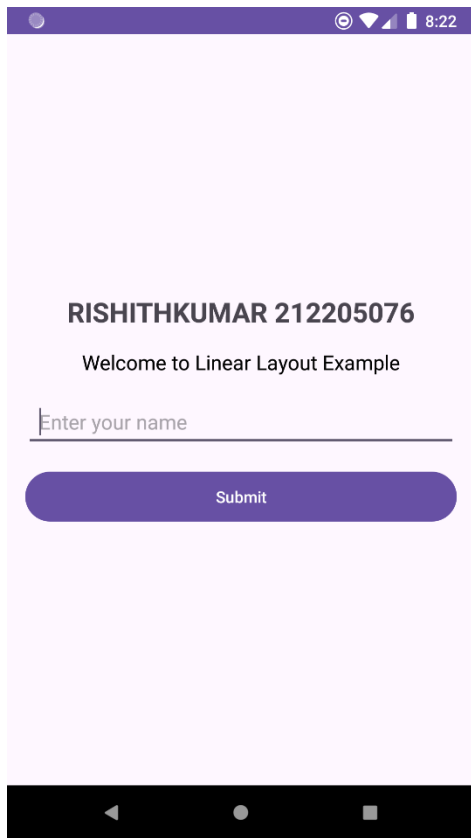
```
    android:id="@+id/inputText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter your name"
    android:padding="12dp" />
```

```
<Button
```

```
    android:id="@+id/submitButton"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Submit"
    android:padding="12dp"
    android:layout_marginTop="16dp" />
```

```
</LinearLayout>
```

Output:



EX NO: 9(B)

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USES LINEAR
LAYOUT HORIZONTAL**

MainActivity.java

```
package com.example.linearlayouthorizontal;

import android.os.Bundle;
import android.widget.TextView;
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);
        findViewById(R.id.submitButton).setOnClickListener(v ->
            Toast.makeText(MainActivity.this, "Button Clicked!",
                Toast.LENGTH_SHORT).show());
    }
}
```

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="horizontal"
    android:layout_gravity="center"
    android:padding="16dp">

    <TextView
        android:id="@+id/text"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center"
```



```
android:layout_toStartOf="@id/text"
android:text="YOUR NAME:"
android:textSize="18sp"
android:textStyle="bold" />
```

<EditText

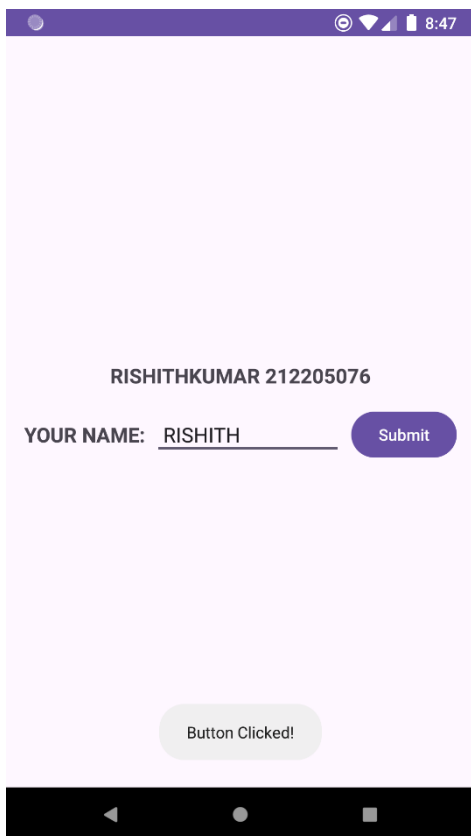
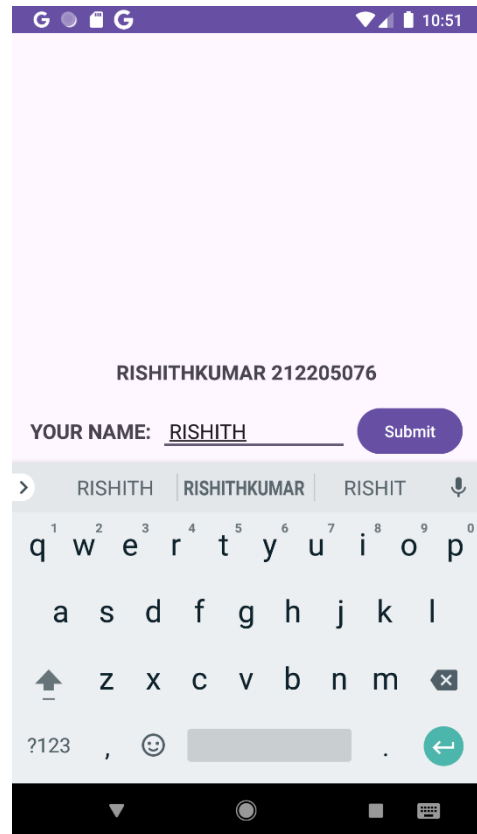
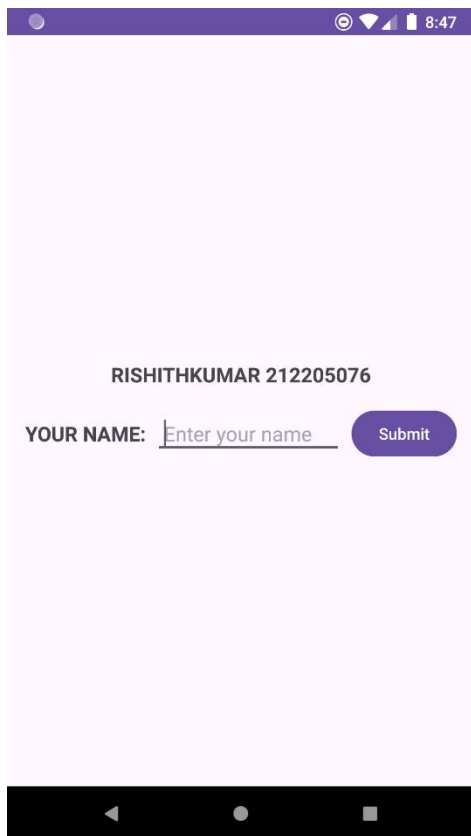
```
android:id="@+id/inputText"
android:layout_width="0dp"
android:layout_height="wrap_content"
android:layout_gravity="center"
android:layout_weight="1"
android:hint="Enter your name"
android:padding="8dp" />
```

<Button

```
android:id="@+id/submitButton"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_gravity="center"
android:layout_marginStart="8dp"
android:text="Submit" />
```

</LinearLayout>

Output:



EX NO: 10

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USING RELATIVE
LAYOUT**

MainActivity.java

```
package com.example.relativelayout;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText etName;
    private Button btnSubmit;
    private TextView tvOutput;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        etName = findViewById(R.id.etName);
        btnSubmit = findViewById(R.id.btnSubmit);
        tvOutput = findViewById(R.id.tvOutput);
        btnSubmit.setOnClickListener(new View.OnClickListener() {

            @Override
            public void onClick(View v) {
                String name = etName.getText().toString();
                if (!name.isEmpty()) {
                    tvOutput.setText("Hello, " + name + "!");
                }
            }
        });
    }
}
```

```

        } else {
            tvOutput.setText("Please enter your name.");
        }
    }
});
}
}

```

Activity main.xml

```

<?xml version="1.0" encoding="UTF-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_centerInParent="true" />

    <TextView
        android:id="@+id/tvTitle"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Enter Your Name:"
        android:textSize="18sp"
        android:textStyle="bold"
        android:layout_centerHorizontal="true" />

    <EditText
        android:id="@+id/etName"

```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Type here..."
android:layout_below="@id/tvTitle"
android:layout_marginTop="20dp"
android:padding="10dp"
android:background="@android:drawable/editbox_background" />
```

<Button

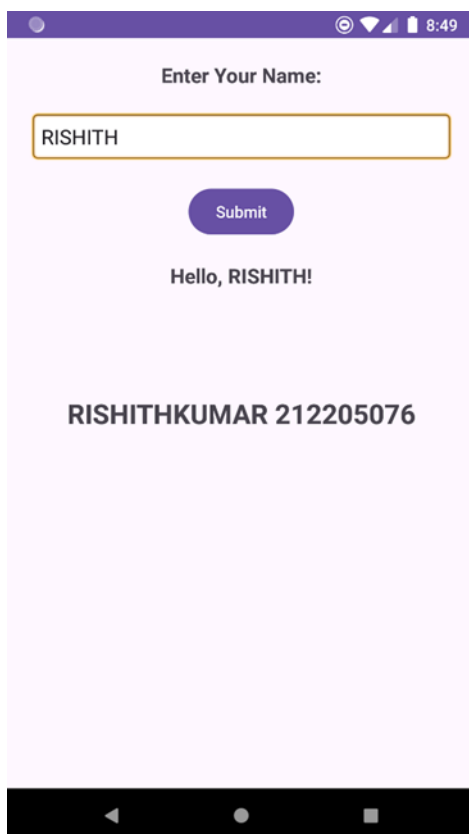
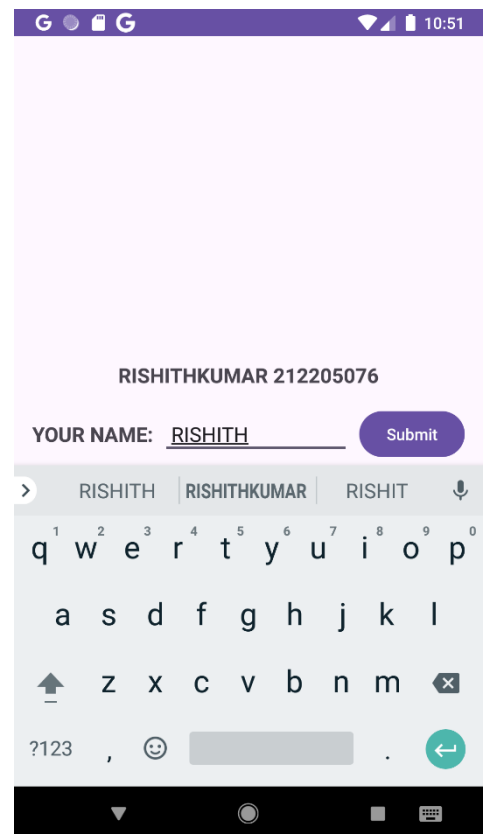
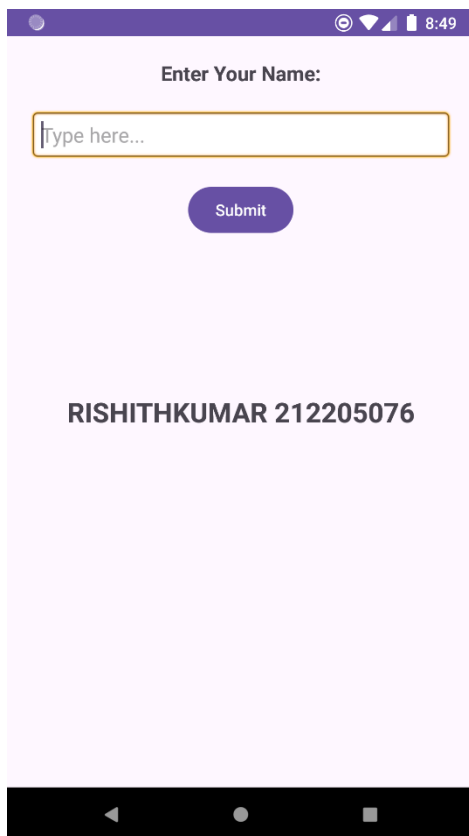
```
android:id="@+id/btnSubmit"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Submit"
android:layout_below="@id/etName"
android:layout_centerHorizontal="true"
android:layout_marginTop="20dp" />
```

<TextView

```
android:id="@+id/tvOutput"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textSize="18sp"
android:textStyle="bold"
android:layout_below="@id/btnSubmit"
android:layout_centerHorizontal="true"
android:layout_marginTop="20dp" />
```

</RelativeLayout>

Output:



EX NO: 11

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USES AUDIO MODE
(NORMAL SILENT VIBRATE)**

MainActivity.java

```
package com.example.audiomode;

import android.app.NotificationManager;
import android.content.Context;
import android.content.Intent;
import android.media.AudioManager;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private TextView currentStateTV;
    private Button silentBtn, vibrateBtn, ringtoneBtn;
    private AudioManager audioManager;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        currentStateTV = findViewById(R.id.idTVCurrentMode);
        silentBtn = findViewById(R.id.button1);
        vibrateBtn = findViewById(R.id.button2);
        ringtoneBtn = findViewById(R.id.button3);

        audioManager = (AudioManager) getSystemService(Context.AUDIO_SERVICE);
        updateRingerMode();
        silentBtn.setOnClickListener(new View.OnClickListener() {

            @Override
```

```

        public void onClick(View v) {
            changeRingerMode(AudioManager.RINGER_MODE_SILENT, "Silent Mode
Activated");
        }
    });
    vibrateBtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            changeRingerMode(AudioManager.RINGER_MODE_VIBRATE, "Vibrate Mode
Activated");
        }
    });
    ringtoneBtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            changeRingerMode(AudioManager.RINGER_MODE_NORMAL, "Ringtone
Mode Activated");
        }
    });
}

private void updateRingerMode() {
    int currentMode = audioManager.getRingerMode();
    switch (currentMode) {
        case AudioManager.RINGER_MODE_NORMAL:
            currentStateTV.setText("Current Mode: Ringer");
            break;
        case AudioManager.RINGER_MODE_SILENT:
            currentStateTV.setText("Current Mode: Silent");
            break;
        case AudioManager.RINGER_MODE_VIBRATE:
            currentStateTV.setText("Current Mode: Vibrate");
            break;
        default:
            currentStateTV.setText("Unknown Mode");
    }
}

private void changeRingerMode(int mode, String message) {
    NotificationManager notificationManager = (NotificationManager)
getSystemService(Context.NOTIFICATION_SERVICE);
    if (Build.VERSION.SDK_INT >= Build.VERSION_CODES.M &&

```



```

        !notificationManager.isNotificationPolicyAccessGranted()) {
            Intent intent = new
Intent(android.provider.Settings.ACTION_NOTIFICATION_POLICY_ACCESS_SETTING
S);
            startActivity(intent);
            return;
        }
        AudioManager.setRingerMode(mode);
        Toast.makeText(MainActivity.this, message, Toast.LENGTH_SHORT).show();
        updateRingerMode();
    }
}

```

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:gravity="center"
    android:padding="20dp">

    <TextView
        android:id="@+id/idTVCurrentMode"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Current Mode: "
        android:textSize="20sp"
        android:paddingBottom="20dp"/>

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

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```

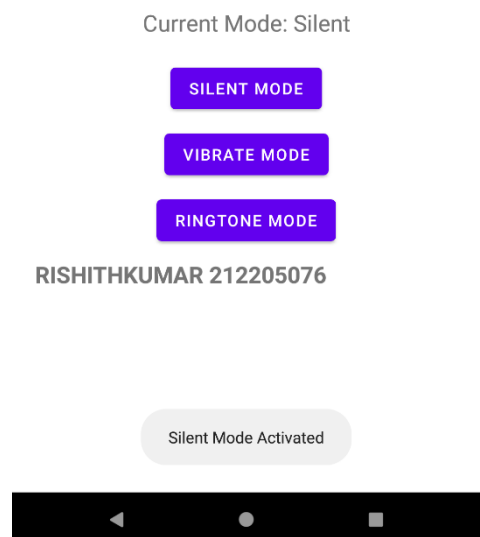
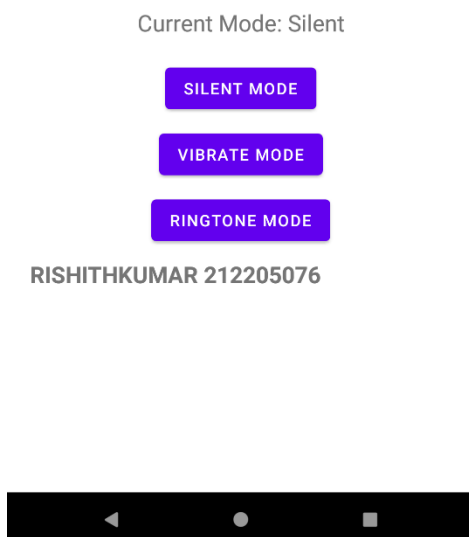
```
android:text="Vibrate Mode"
android:layout_marginTop="10dp"/>
```

```
<Button
    android:id="@+id/button3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Ringtone Mode"
    android:layout_marginTop="10dp"/>
```

```
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="RISHITHKUMAR 212205076"
    android:textSize="24sp"
    android:textStyle="bold"/>
```

```
</LinearLayout>
```

Output:





EX NO: 12

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USES TO SEND
MESSAGES FROM ONE MOBILE TO ANOTHER MOBILE**

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"
    package="com.example.sms">
    <!-- Permission for sending SMS -->
    <uses-permission android:name="android.permission.SEND_SMS"/>
    <uses-feature
        android:name="android.hardware.telephony"
        android:required="false" />

    <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.Sendsms"
        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>
```

MainActivity.java

```
package com.example.sms;

import android.Manifest;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

public class MainActivity extends AppCompatActivity {
    private static final int SMS_PERMISSION_CODE = 1;
    EditText phoneNumberEditText, messageEditText;
    Button sendButton;

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

        phoneNumberEditText = findViewById(R.id.editTextPhone);
        messageEditText = findViewById(R.id.editTextMessage);
        sendButton = findViewById(R.id.buttonSend);

        sendButton.setOnClickListener(v -> {
            if (ContextCompat.checkSelfPermission(this, Manifest.permission.SEND_SMS) !=
                PackageManager.PERMISSION_GRANTED) {
                ActivityCompat.requestPermissions(this, new
                String[]{Manifest.permission.SEND_SMS}, SMS_PERMISSION_CODE);
            } else {
                sendSMS();
            }
        });
    }
}
```

```

    }
    private void sendSMS() {
        String phoneNumber = phoneNumberEditText.getText().toString();
        String message = messageEditText.getText().toString();
        if (phoneNumber.isEmpty() || message.isEmpty()) {
            Toast.makeText(MainActivity.this, "Please enter a phone number and message.",
                Toast.LENGTH_SHORT).show();
            return;
        }

        try {
            SmsManager smsManager = SmsManager.getDefault();
            smsManager.sendTextMessage(phoneNumber, null, message, null, null);
            Toast.makeText(MainActivity.this, "SMS sent successfully.",
                Toast.LENGTH_LONG).show();
        } catch (Exception e) {
            Toast.makeText(MainActivity.this, "Failed to send SMS.",
                Toast.LENGTH_LONG).show();
            e.printStackTrace();
        }
    }

    @Override
    public void onRequestPermissionsResult(int requestCode, @NonNull String[] permissions,
        @NonNull int[] grantResults) {
        super.onRequestPermissionsResult(requestCode, permissions, grantResults);
        if (requestCode == SMS_PERMISSION_CODE) {
            if (grantResults.length > 0 && grantResults[0] ==
                PackageManager.PERMISSION_GRANTED) {
                sendSMS();
            } else {

                Toast.makeText(this, "Permission denied. SMS cannot be sent.",
                    Toast.LENGTH_SHORT).show();
            }
        }
    }
}

```

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">

    <EditText
        android:id="@+id/editTextPhone"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter phone number"
        android:inputType="phone"
        android:minHeight="48dp" />

    <EditText
        android:id="@+id/editTextMessage"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter message"
        android:inputType="text"
        android:minHeight="48dp" />

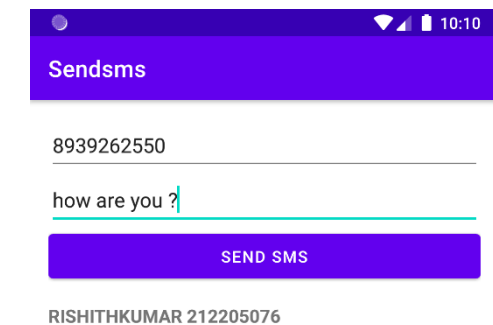
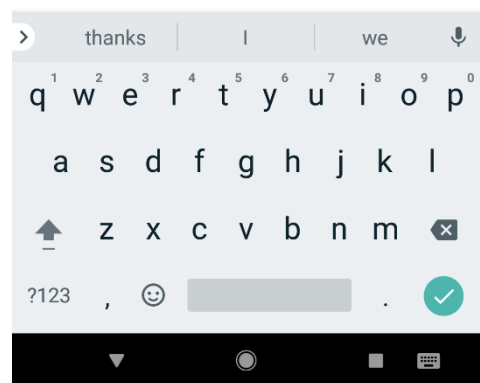
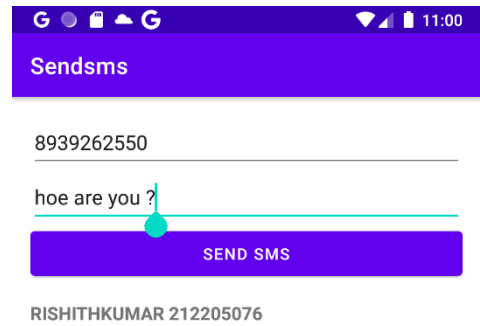
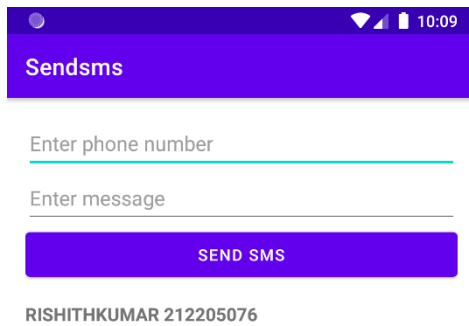
    <Button
        android:id="@+id/buttonSend"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Send SMS"
        android:padding="10dp" />

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="16dp"
        android:text="RISHITHKUMAR 212205076"
```

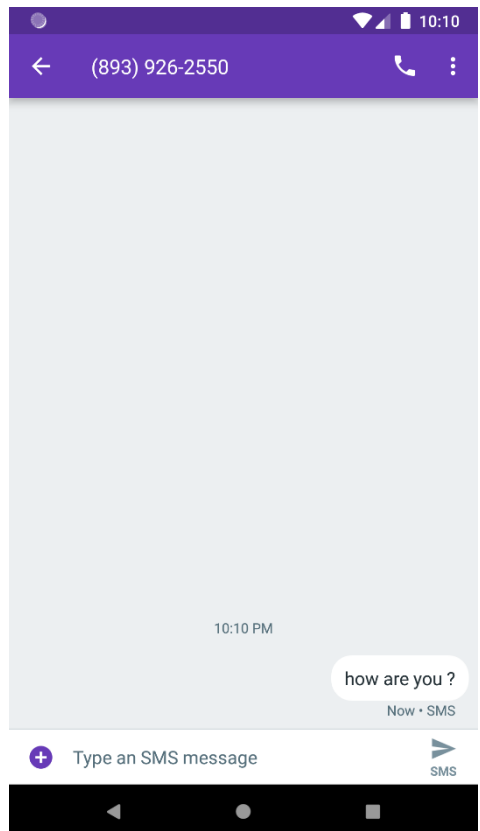
```
android:textSize="16sp"  
android:textStyle="bold"/>
```

```
</LinearLayout>
```


Output:



SMS sent successfully.



EX NO: 13

DATE:

**DEVELOP AN ANDROID APPLICATION THAT USES TO SEND
EMAIL**

MainActivity.java

```
package com.example.email;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private Button button;
    private EditText sendTo;
    private EditText subject;
    private EditText body;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        sendTo = findViewById(R.id.editText1);
        subject = findViewById(R.id.editText2);
        body = findViewById(R.id.editText3);
        button = findViewById(R.id.button);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String emailSend = sendTo.getText().toString();
                String emailSubject = subject.getText().toString();
                String emailBody = body.getText().toString();
                Intent intent = new Intent(Intent.ACTION_SEND);
                intent.putExtra(Intent.EXTRA_EMAIL, new String[]{emailSend});
                intent.putExtra(Intent.EXTRA_SUBJECT, emailSubject);
                intent.putExtra(Intent.EXTRA_TEXT, emailBody);
```

```

        intent.setType("message/rfc822");
        startActivity(Intent.createChooser(intent, "Choose an Email client :"));
    }
});
}
}

```

Activity main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp">

    <EditText
        android:id="@+id/editText1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="To"
        android:inputType="textEmailAddress" />

    <EditText
        android:id="@+id/editText2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/editText1"
        android:hint="Subject"
        android:inputType="text" />

    <EditText
        android:id="@+id/editText3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@id/editText2"
        android:gravity="top"
        android:hint="Message"
        android:inputType="textMultiLine"
        android:minLines="5" />

```

<Button

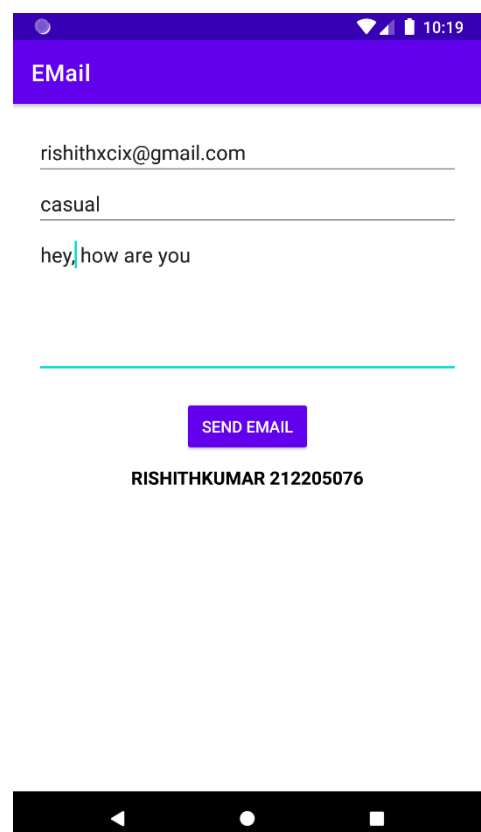
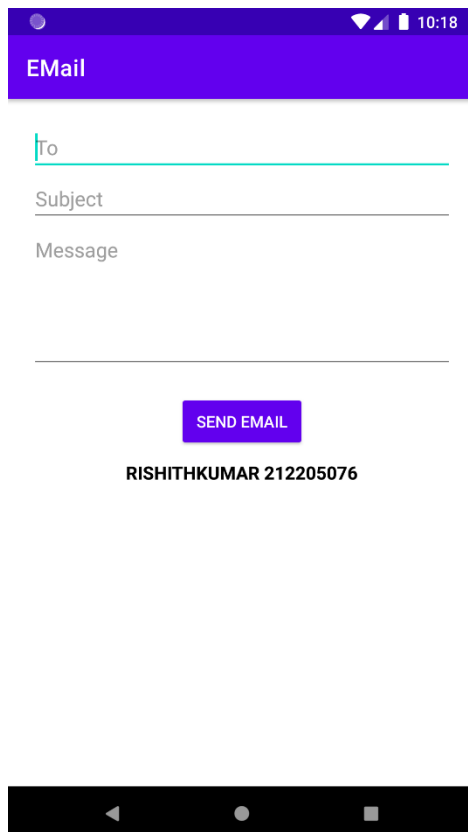
```
    android:id="@+id/button"
    style="@android:style/Widget.DeviceDefault.Button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/editText3"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="20dp"
    android:text="Send Email" />
```

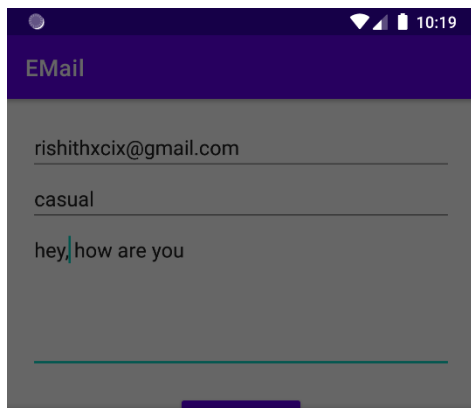
<TextView

```
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/button"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="10dp"
    android:text="RISHITHKUMAR 212205076"
    android:textSize="16sp"
    android:textStyle="bold"
    android:textColor="@android:color/black" />
```

</RelativeLayout>

OUTPUT:





Choose an Email client :



Gmail



Save to Drive



SEND EMAIL

RISHITHKUMAR 212205076

Sending message...



casual Add label



Rishith Kumar

to rishithxcix

[Hide details](#)

From: Rishith Kumar rishithking@gmail.com

To: rishithxcix@gmail.com

Date: Feb 17, 2025, 10:19 PM

[View security details](#)

hey, how are you

 Reply

 Reply all

 Forward



EX NO: 14

DATE:

DEVELOP AN ANDROID APPLICATION FOR MOBILE CALL

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">

    <uses-permission android:name="android.permission.CALL_PHONE"/>

    <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.Mobilecalls"
        tools:targetApi="31">

        <activity
            android:name=".MainActivity"
            android:exported="true"
            android:theme="@style/Theme.Mobilecalls">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />
                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>
</manifest>
```

MainActivity.java

```
package com.example.mobilecall;
```

```

import android.Manifest;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.net.Uri;
import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        EditText txtPhone = findViewById(R.id.mblTxt);
        Button btn = findViewById(R.id.btnCall);

        btn.setOnClickListener(v -> {
            String phoneNumber = txtPhone.getText().toString();
            if (phoneNumber.isEmpty()) {
                Toast.makeText(this, "Enter a phone number", Toast.LENGTH_SHORT).show();
                return;
            }
            if (ActivityCompat.checkSelfPermission(this, Manifest.permission.CALL_PHONE)
                != PackageManager.PERMISSION_GRANTED) {
                ActivityCompat.requestPermissions(this, new
                String[]{Manifest.permission.CALL_PHONE}, 101);
                return;
            }
            startActivity(new Intent(Intent.ACTION_CALL, Uri.parse("tel:" + phoneNumber)));
        });
    }
    @Override
    public void onRequestPermissionsResult(int requestCode, String[] permissions, int[]
    grantResults) {
        super.onRequestPermissionsResult(requestCode, permissions, grantResults);
        if (requestCode == 101 && grantResults.length > 0 && grantResults[0] ==
        PackageManager.PERMISSION_GRANTED) {
            ((Button) findViewById(R.id.btnCall)).performClick();
        }
    }
}

```

```

    } else {
        Toast.makeText(this, "Permission GRANTED ", Toast.LENGTH_SHORT).show();
    }
}
}
}

```

Activity main.xml

```

<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">

    <EditText
        android:id="@+id/mb1Txt"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Phone Number"
        android:inputType="phone"
        android:layout_marginBottom="16dp" />

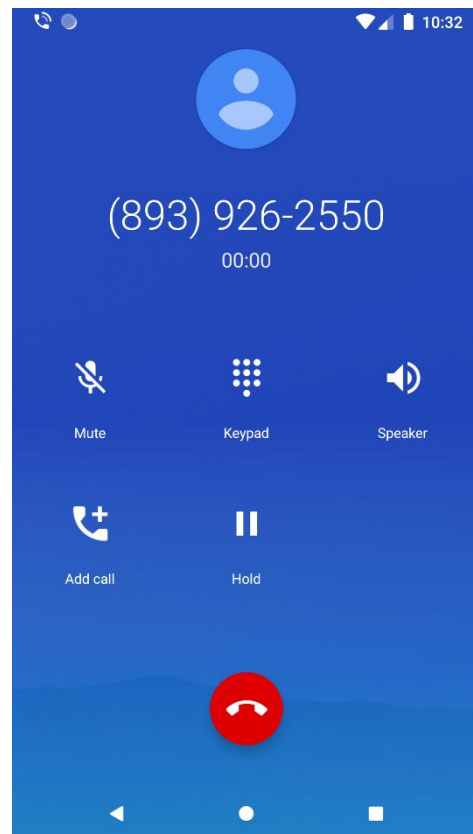
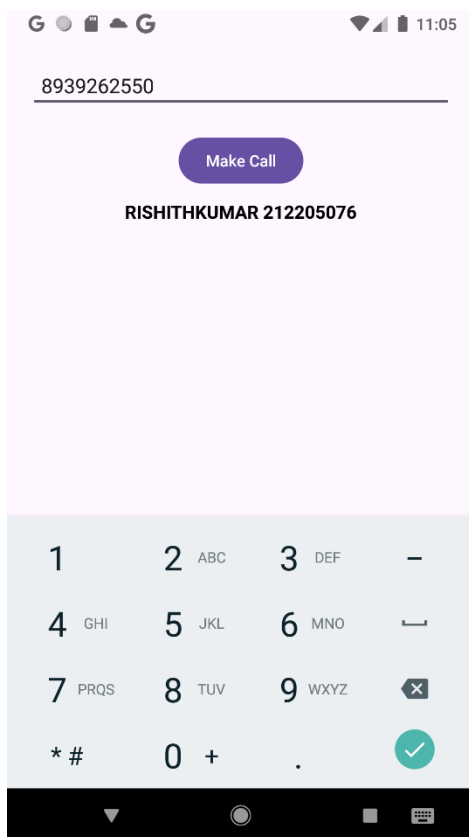
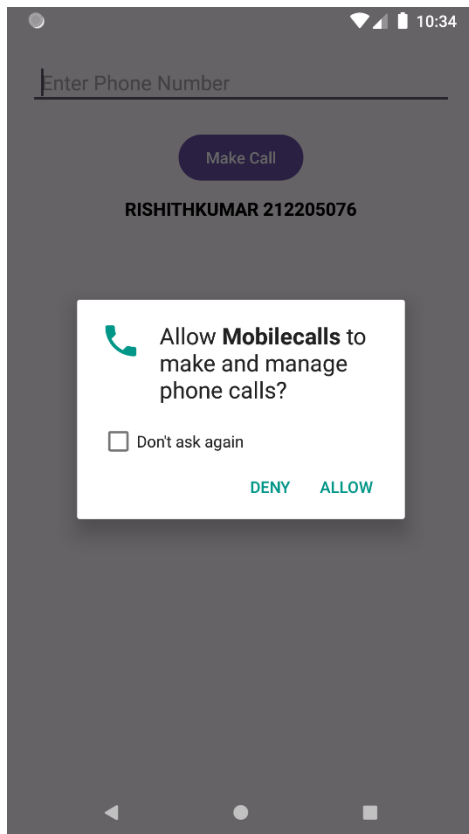
    <Button
        android:id="@+id/btnCall"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Call" />

    <TextView
        android:id="@+id/nameHolder"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:layout_marginTop="16dp"
        android:text="RISHITHKUMAR 212205076"
        android:textColor="#004D40"
        android:textSize="16sp" />

</LinearLayout>

```


OUTPUT:



EX NO: 15

DATE:

**DEVELOP AN ANDROID APPLICATION FOR STUDENT
MARKSHEET PROCESSING**

MainActivity.java

```
package com.example.marksheet;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText etMark1, etMark2, etMark3;
    private Button btnCalculate;
    private TextView tvResult;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        etMark1 = findViewById(R.id.etMark1);
        etMark2 = findViewById(R.id.etMark2);
        etMark3 = findViewById(R.id.etMark3);
        btnCalculate = findViewById(R.id.btnCalculate);
        tvResult = findViewById(R.id.tvResult);

        btnCalculate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculateResult();
            }
        });
    }
}
```

```

    }
    private void calculateResult() {
        try {
            int mark1 = Integer.parseInt(etMark1.getText().toString());
            int mark2 = Integer.parseInt(etMark2.getText().toString());
            int mark3 = Integer.parseInt(etMark3.getText().toString());
            int total = mark1 + mark2 + mark3;
            float percentage = total / 3.0f;
            String grade;
            if (percentage >= 90) {
                grade = "A+";
            } else if (percentage >= 75) {
                grade = "A";
            } else if (percentage >= 60) {
                grade = "B";
            } else if (percentage >= 50) {
                grade = "C";
            } else {
                grade = "Fail";
            }
            String resultText = "Total: " + total + "\nPercentage: " + percentage + "%\nGrade: " +
grade;
            tvResult.setText(resultText);
        } catch (Exception e) {
            Toast.makeText(this, "Enter valid marks!", Toast.LENGTH_SHORT).show();
        }
    }
}

```

Activity main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"

```

```
android:layout_height="wrap_content"
android:textSize="24sp"
android:textStyle="bold"
android:layout_centerInParent="true" />
```

<EditText

```
android:id="@+id/etMark1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Enter Mark 1"
android:inputType="number"
android:padding="10dp" />
```

<EditText

```
android:id="@+id/etMark2"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Enter Mark 2"
android:inputType="number"
android:padding="10dp"
android:layout_below="@id/etMark1"
android:layout_marginTop="10dp" />
```

<EditText

```
android:id="@+id/etMark3"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Enter Mark 3"
android:inputType="number"
android:padding="10dp"
android:layout_below="@id/etMark2"
android:layout_marginTop="10dp" />
```

<Button

```
android:id="@+id/btnCalculate"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Calculate"
android:layout_below="@id/etMark3"
android:layout_centerHorizontal="true"
```

```
android:layout_marginTop="20dp" />
```

```
<TextView
```

```
    android:id="@+id/tvResult"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Result will be displayed here"
```

```
    android:textSize="16sp"
```

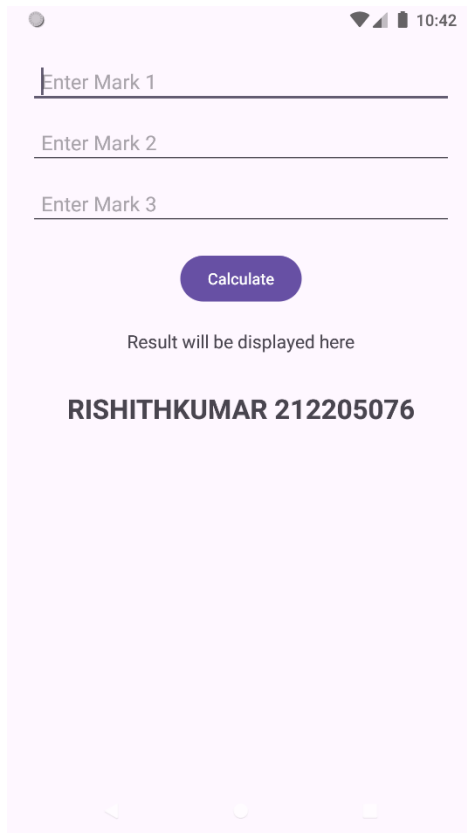
```
    android:layout_below="@id/btnCalculate"
```

```
    android:layout_centerHorizontal="true"
```

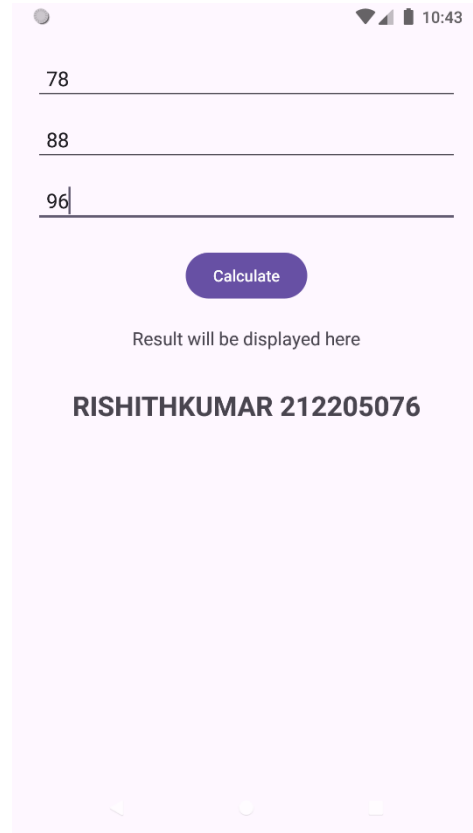
```
    android:layout_marginTop="20dp" />
```

```
</RelativeLayout>
```

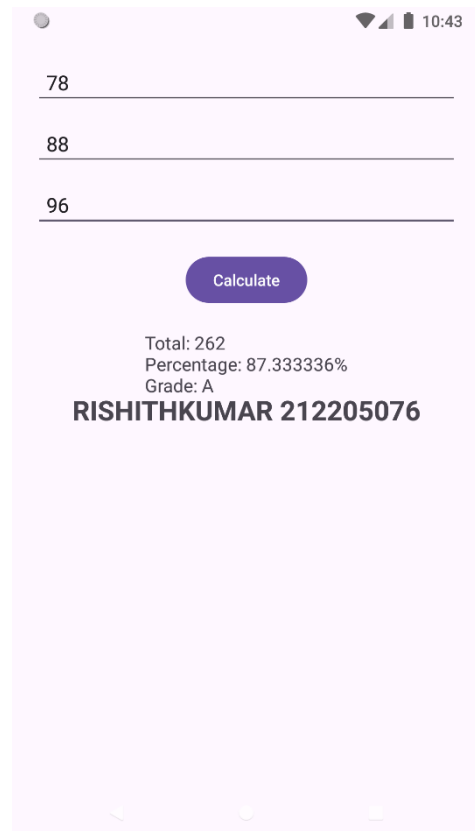
OUTPUT:



A screenshot of a mobile application interface. At the top, there is a status bar with a grey circle, signal strength, battery, and the time 10:42. Below the status bar, there are three input fields with placeholder text: "Enter Mark 1", "Enter Mark 2", and "Enter Mark 3". Each input field has a horizontal line underneath it. Below the input fields, there is a purple button with the text "Calculate". Below the button, there is a line of text: "Result will be displayed here". At the bottom, there is a large, bold, black text: "RISHITHKUMAR 212205076". At the very bottom, there are three white navigation icons on a light purple background.



A screenshot of a mobile application interface. At the top, there is a status bar with a grey circle, signal strength, battery, and the time 10:43. Below the status bar, there are three input fields with entered values: "78", "88", and "96". Each input field has a horizontal line underneath it. Below the input fields, there is a purple button with the text "Calculate". Below the button, there is a line of text: "Result will be displayed here". At the bottom, there is a large, bold, black text: "RISHITHKUMAR 212205076". At the very bottom, there are three white navigation icons on a light purple background.



A screenshot of a mobile application interface. At the top, there is a status bar with a grey circle, signal strength, battery, and the time 10:43. Below the status bar, there are three input fields with entered values: "78", "88", and "96". Each input field has a horizontal line underneath it. Below the input fields, there is a purple button with the text "Calculate". Below the button, there is a line of text: "Result will be displayed here". Below that, there is a line of text: "Total: 262". Below that, there is a line of text: "Percentage: 87.333336%". Below that, there is a line of text: "Grade: A". At the bottom, there is a large, bold, black text: "RISHITHKUMAR 212205076". At the very bottom, there are three white navigation icons on a light purple background.

EX NO: 16

DATE:

**DEVELOP AN ANDROID APPLICATION FOR PAYROLL
PROCESSING**

MainActivity.java

```
package com.example.payroll;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText etBasicSalary;
    private Button btnCalculate;
    private TextView tvResult;
    @Override

    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");
        etBasicSalary = findViewById(R.id.etBasicSalary);
        btnCalculate = findViewById(R.id.btnCalculate);
        tvResult = findViewById(R.id.tvResult);
        btnCalculate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                calculatePayroll();
            }
        });
    }
}
```

```

private void calculatePayroll() {
    try {
        double basicSalary = Double.parseDouble(etBasicSalary.getText().toString());
        double hra = 0.20 * basicSalary;
        double da = 0.10 * basicSalary;
        double grossSalary = basicSalary + hra + da;
        double tax = 0.05 * grossSalary;
        double pf = 0.08 * basicSalary;
        double netSalary = grossSalary - (tax + pf);
        String resultText = "Gross Salary: ₹" + grossSalary +
            "\nIncome Tax: ₹" + tax +
            "\nProvident Fund: ₹" + pf +
            "\nNet Salary: ₹" + netSalary;
        tvResult.setText(resultText);
    } catch (Exception e) {
        Toast.makeText(this, "Enter a valid salary!", Toast.LENGTH_SHORT).show();
    }
}
}

```

Activity main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp">

    <EditText
        android:id="@+id/etBasicSalary"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Basic Salary"
        android:layout_below="@id/tvName"
        android:inputType="numberDecimal"
        android:padding="10dp"/>

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```



```
android:layout_below="@+id/textview"
android:textSize="20sp"
android:textStyle="bold"
android:layout_alignParentTop="true"
android:layout_centerHorizontal="true"
android:layout_marginBottom="50dp"/>
```

<Button

```
android:id="@+id/btnCalculate"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Calculate Salary"
android:layout_below="@id/etBasicSalary"
android:layout_centerHorizontal="true"
android:layout_marginTop="20dp"/>
```

<TextView

```
android:id="@+id/tvResult"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text="Salary Details will appear here"
android:textSize="16sp"
android:textStyle="bold"
android:padding="10dp"
android:layout_below="@id/btnCalculate"
android:layout_marginTop="20dp"/>
```

</RelativeLayout>

OUTPUT:

RISHITHKUMAR 212205076

Enter Basic Salary

Calculate Salary

Salary Details will appear here

RISHITHKUMAR 212205076

40000

Calculate Salary

Salary Details will appear here

1 2 3 -

4 5 6 _

7 8 9 ×

, 0 . ✓

RISHITHKUMAR 212205076

40000

Calculate Salary

Gross Salary: ₹52000.0
Income Tax: ₹2600.0
Provident Fund: ₹3200.0
Net Salary: ₹46200.0

EX NO: 17

DATE:

DEVELOP AN ANDROID APPLICATION FOR LOGIN PAGE

MainActivity.java

```
package com.example.loginpage;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {
    private EditText etUsername, etPassword;
    private Button btnLogin;
    private TextView tvMessage;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        TextView tvName = findViewById(R.id.tvName);
        tvName.setText("RISHITHKUMAR 212205076");

        etUsername = findViewById(R.id.etUsername);
        etPassword = findViewById(R.id.etPassword);
        btnLogin = findViewById(R.id.btnLogin);
        tvMessage = findViewById(R.id.tvMessage);
        btnLogin.setOnClickListener(new View.OnClickListener() {

            @Override
            public void onClick(View v) {
                validateLogin();
            }
        });
    }
}
```

```

private void validateLogin() {
    String username = etUsername.getText().toString().trim();
    String password = etPassword.getText().toString().trim();
    if (username.equals("admin") && password.equals("1234")) {
        tvMessage.setText("Login Successful!");
        tvMessage.setTextColor(getResources().getColor(android.R.color.holo_green_dark));
    } else {
        tvMessage.setText("Invalid Username or Password!");
        tvMessage.setTextColor(getResources().getColor(android.R.color.holo_red_dark));
    }
}
}
}

```

Activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="20dp">

    <TextView
        android:id="@+id/tvName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="24sp"
        android:textStyle="bold"
        android:layout_centerInParent="true" />

    <EditText
        android:id="@+id/etUsername"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Username"
        android:inputType="text"
        android:padding="10dp"/>

    <EditText
        android:id="@+id/etPassword"

```

```
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:hint="Enter Password"
android:inputType="textPassword"
android:padding="10dp"
android:layout_below="@id/etUsername"
android:layout_marginTop="10dp"/>
```

<Button

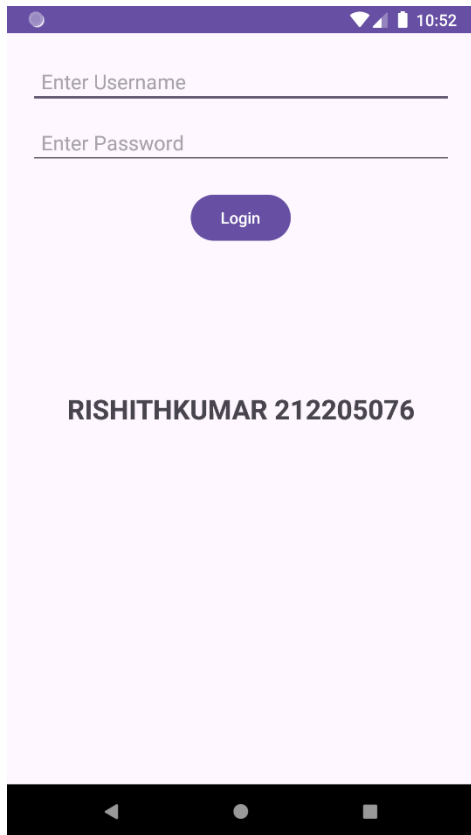
```
android:id="@+id/btnLogin"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:text="Login"
android:layout_below="@id/etPassword"
android:layout_centerHorizontal="true"
android:layout_marginTop="20dp"/>
```

<TextView

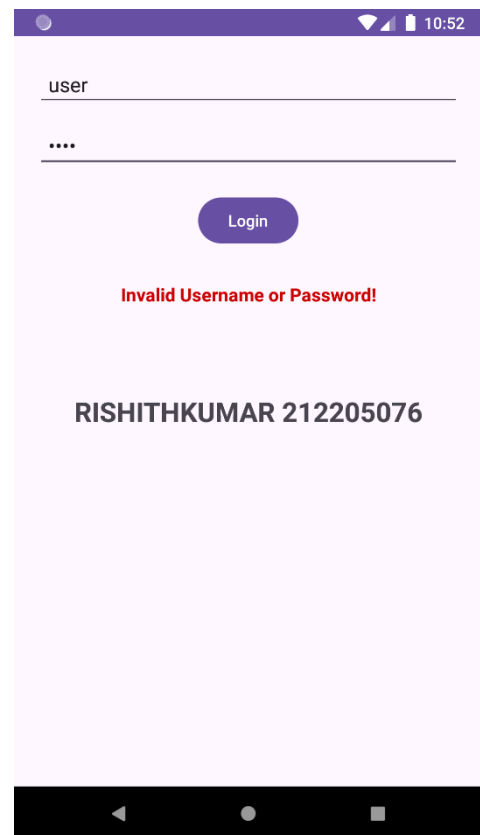
```
android:id="@+id/tvMessage"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:text=""
android:textSize="16sp"
android:textStyle="bold"
android:padding="10dp"
android:layout_below="@id/btnLogin"
android:layout_marginTop="20dp"
android:gravity="center"/>
```

</RelativeLayout>

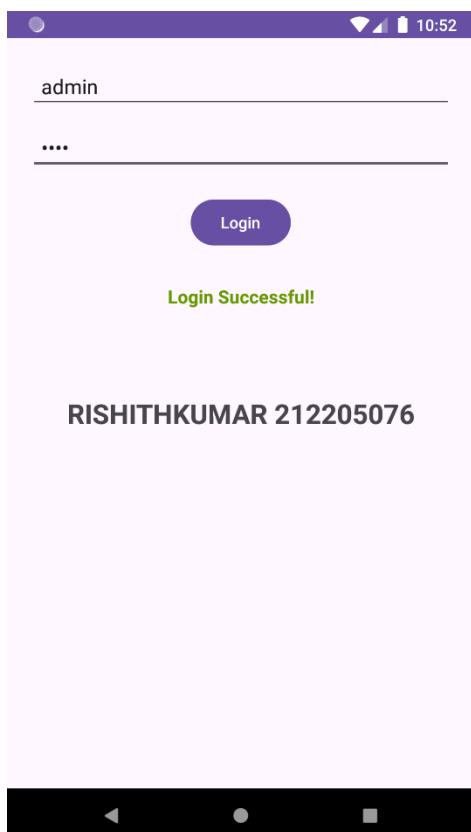
OUTPUT:



Mobile app login screen. The header bar is purple with status icons and the time 10:52. The background is light pink. There are two input fields: "Enter Username" and "Enter Password". Below them is a purple "Login" button. At the bottom, the text "RISHITHKUMAR 212205076" is displayed. The Android navigation bar is at the bottom.



Mobile app login screen after an invalid login attempt. The username field contains "user" and the password field contains "****". A red error message "Invalid Username or Password!" is displayed below the "Login" button. The text "RISHITHKUMAR 212205076" is at the bottom. The Android navigation bar is at the bottom.



Mobile app login screen after a successful login attempt. The username field contains "admin" and the password field contains "****". A green success message "Login Successful!" is displayed below the "Login" button. The text "RISHITHKUMAR 212205076" is at the bottom. The Android navigation bar is at the bottom.

EX NO: 18

DATE:

DEVELOP AN ANDROID APPLICATION FOR GOOGLE MAP LOCATOR

AndroidManifest.xml

```
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.gmap">

    <uses-permission android:name="android.permission.INTERNET"/>

    <application
        android:allowBackup="true"
        android:theme="@style/Theme.AppCompat.Light"
        android:label="">

        <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>
```

MainActivity.java

```
package com.example.gmap;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.widget.Button;
import android.widget.TextView;
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);
    }
}
```

```

TextView txtName = findViewById(R.id.txtName);
txtName.setText("RISHITHKUMAR 212205076");

Button btnOpenMap = findViewById(R.id.btnOpenMap);
btnOpenMap.setOnClickListener(v -> {
    String place = "patrician college of arts and science";
    openMapWithPlace(place);
    Toast.makeText(MainActivity.this, "Opening Google Maps for ",
        Toast.LENGTH_SHORT).show();
});
}

private void openMapWithPlace(String place) {
    String uri = "geo:0,0?q=" + Uri.encode(place);
    Intent intent = new Intent(Intent.ACTION_VIEW, Uri.parse(uri));
    intent.setPackage("com.google.android.apps.maps");
    if (intent.resolveActivity(getPackageManager()) != null) {
        startActivity(intent);
    } else {
        Toast.makeText(this, "Google Maps is not installed", Toast.LENGTH_LONG).show();
    }
}
}

```

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:gravity="center"
    android:padding="20dp">

    <TextView
        android:id="@+id/txtName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:textSize="20sp"
        android:textStyle="bold"
        android:textColor="@color/black"
        android:layout_marginBottom="10dp"/>

```



```
<Button
    android:id="@+id/btnOpenMap"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textSize="20sp"
    android:text="Open Google Maps" />

</LinearLayout>
```

OUTPUT:

