

Practical No – 03

Program –

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

    <EditText
        android:id="@+id/email"
        android:hint="Email"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="281dp"
        android:ems="10"
        android:inputType="textEmailAddress" />

    <EditText
        android:id="@+id/password"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/email"
        android:layout_centerInParent="true"
        android:layout_marginTop="10dp"
        android:ems="10"
        android:hint="Password"
        android:inputType="textPassword" />

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/password"
        android:layout_marginTop="20dp"
        android:layout_centerHorizontal="true"
        android:orientation="horizontal">

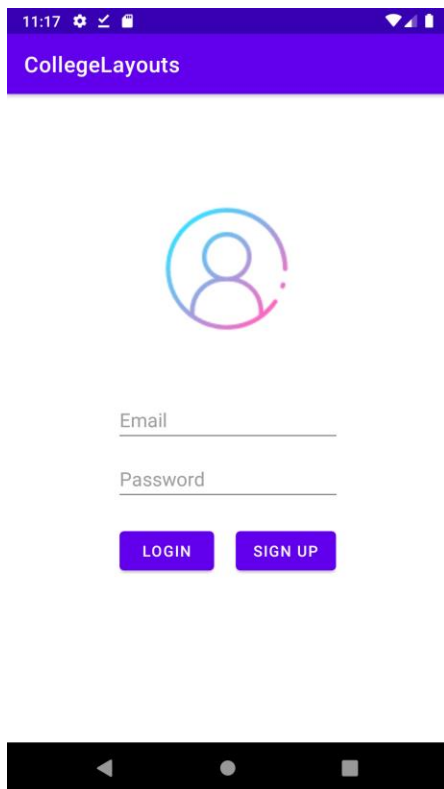
        <Button
            android:id="@+id/button4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="Login" />

        <Button
            android:id="@+id/button5"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:layout_weight="1"
            android:text="Sign Up" />

    </LinearLayout>
```

```
<ImageView
    android:id="@+id/imageView"
    android:layout_width="163dp"
    android:layout_height="155dp"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_marginStart="123dp"
    android:layout_marginTop="85dp"
    app:srcCompat="@drawable/login" />
</RelativeLayout>
```

Output –



Program –

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

    <TextView
        android:id="@+id/textview1"
        android:layout_width="373dp"
        android:layout_height="99dp"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="39dp"
        android:text="Welcome to My Design"
        android:textSize="40dp">

    </TextView>

    <GridLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_below="@+id/textview1"
        android:layout_marginStart="2dp"
        android:layout_marginTop="2dp"
        android:layout_marginEnd="2dp"
        android:layout_marginBottom="2dp"
        android:background="#8929A3"
        android:columnCount="2"
        android:rowCount="5">

        <ImageButton
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_rowWeight="1"
            android:layout_columnWeight="1"
            android:layout_gravity="fill"
            android:layout_margin="15dp"
            android:backgroundTint="#FF9800">

        </ImageButton>

        <ImageButton
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_rowWeight="1"
            android:layout_columnWeight="1"
            android:layout_gravity="fill"
            android:layout_marginStart="15dp"
            android:layout_marginLeft="5dp"
            android:layout_marginTop="15dp"
            android:layout_marginEnd="15dp"
            android:layout_marginBottom="15dp"
            android:backgroundTint="#F44336">

        </ImageButton>
```

```

<ImageButton
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_rowWeight="1"
    android:layout_columnWeight="1"
    android:layout_gravity="fill"
    android:layout_margin="15dp"
    android:backgroundTint="#FFEB3B"
    android:text="Login">

</ImageButton>

<ImageButton
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_rowWeight="1"
    android:layout_columnWeight="1"
    android:layout_gravity="fill"
    android:layout_margin="15dp"
    android:layout_marginLeft="5dp"
    android:backgroundTint="#112DCC">

</ImageButton>

<ImageView
    android:id="@+id/imageView5"
    android:layout_width="203dp"
    android:layout_height="193dp"
    android:layout_row="0"
    android:layout_column="0"
    tools:srcCompat="@tools:sample/avatars" />

<ImageView
    android:id="@+id/imageView6"
    android:layout_width="197dp"
    android:layout_height="177dp"
    android:layout_row="0"
    android:layout_column="1"
    tools:srcCompat="@tools:sample/avatars" />

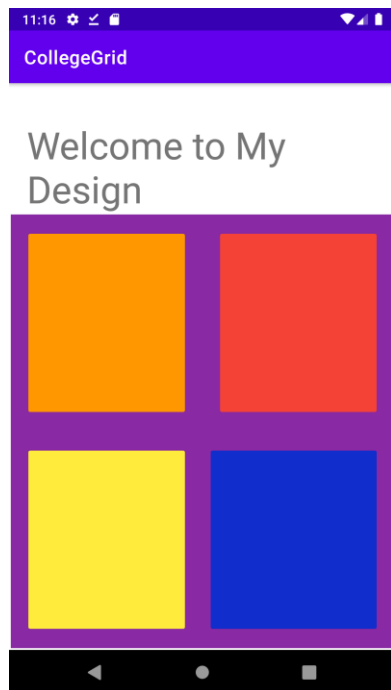
<ImageView
    android:id="@+id/imageView7"
    android:layout_width="197dp"
    android:layout_height="177dp"
    android:layout_row="1"
    android:layout_column="0"
    tools:srcCompat="@tools:sample/avatars" />

<ImageView
    android:id="@+id/imageView8"
    android:layout_width="197dp"
    android:layout_height="177dp"
    android:layout_row="1"
    android:layout_column="1"
    tools:srcCompat="@tools:sample/avatars" />

</GridLayout>
</RelativeLayout>

```

Output –



Practical No – 04

Table Layout –

Program –

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

    <TableLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentStart="true"
        android:layout_alignParentBottom="true"
        android:layout_marginTop="100dp"
        android:layout_marginBottom="0dp">

        <TableRow
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:paddingBottom="5dp">

            <TextView
                android:id="@+id/textView"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:fontFamily="sans-serif-black"
                android:padding="10dp"
                android:text="First Name"
                android:textColor="#2196F3" />

            <EditText
                android:id="@+id/editTextTextPersonName"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:ems="10" />
        </TableRow>

        <TableRow
            android:layout_width="match_parent"
            android:layout_height="match_parent">

            <TextView
                android:id="@+id/textView2"
                android:layout_width="match_parent"
                android:layout_height="match_parent"
                android:fontFamily="sans-serif-black"
                android:padding="10dp"
                android:text="Last Name"
                android:textColor="#2196F3" />

            <EditText
                android:id="@+id/editTextTextPersonName2"
                android:layout_width="match_parent"
                android:layout_height="match_parent">
```

```

        android:ems="10"

        />
    </TableRow>

    <TableRow
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <TextView
            android:id="@+id/textView4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:fontFamily="sans-serif-black"
            android:padding="10dp"
            android:text="Gender"
            android:textColor="#2196F3" />

        <RadioGroup
            android:layout_width="match_parent"
            android:layout_height="match_parent"
            android:orientation="horizontal">

            <RadioButton
                android:id="@+id/radioButton"
                android:layout_width="78dp"
                android:layout_height="match_parent"
                android:checked="true"
                android:text="Male" />

            <RadioButton
                android:id="@+id/radioButton2"
                android:layout_width="102dp"
                android:layout_height="match_parent"
                android:layout_marginLeft="10dp"
                android:text="Female" />

        </RadioGroup>

    </TableRow>

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

    >

    <TextView
        android:id="@+id/textView5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="sans-serif-black"
        android:padding="10dp"
        android:text="Favourites"
        android:textColor="#2196F3" />

    <LinearLayout
        android:layout_width="119dp"
        android:layout_height="wrap_content"
        android:orientation="vertical">

    <CheckBox

```

```

        android:id="@+id/checkbox"
        android:layout_width="108dp"
        android:layout_height="match_parent"
        android:text="Indian" />

<CheckBox
    android:id="@+id/checkbox6"
    android:layout_width="108dp"
    android:layout_height="wrap_content"
    android:text="Italian" />

<CheckBox
    android:id="@+id/checkbox4"
    android:layout_width="110dp"
    android:layout_height="wrap_content"
    android:text="Mexican" />
</LinearLayout>

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="vertical">

    <CheckBox
        android:id="@+id/checkbox2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="American" />

    <CheckBox
        android:id="@+id/checkbox3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Chinese" />

    <CheckBox
        android:id="@+id/checkbox5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Russian" />

</LinearLayout>

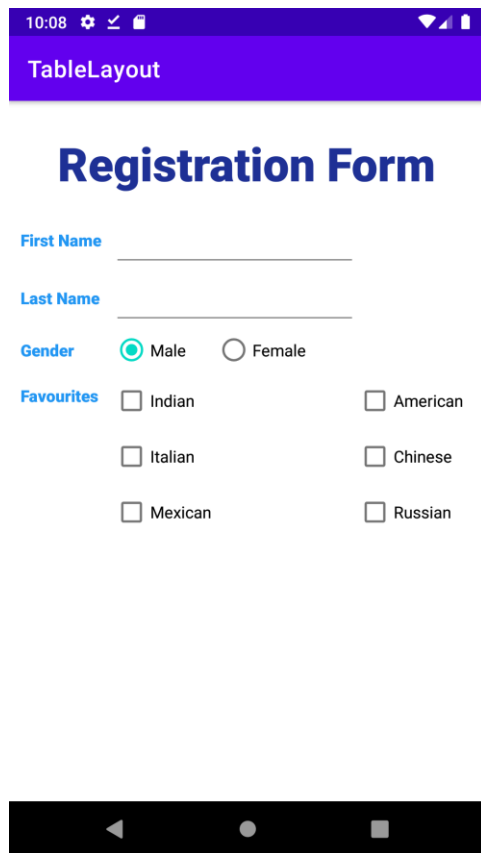
</TableRow>
</TableLayout>

<TextView
    android:id="@+id/textView3"
    android:layout_width="330dp"
    android:layout_height="60dp"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="42dp"
    android:layout_marginTop="27dp"
    android:fontFamily="sans-serif-black"
    android:text="Registration Form"
    android:textSize="40sp"
    android:textColor="#1E3095"
/>

</RelativeLayout>

```


Output –



The screenshot displays an Android application interface. At the top, a status bar shows the time as 10:08 and various system icons. Below this, a purple header bar contains the text 'TableLayout'. The main content area features a large blue title 'Registration Form'. Underneath the title, there are two text input fields labeled 'First Name' and 'Last Name'. Below these, a 'Gender' section contains two radio buttons: 'Male' (which is selected) and 'Female'. At the bottom, a 'Favourites' section lists six options with checkboxes: 'Indian', 'American', 'Italian', 'Chinese', 'Mexican', and 'Russian'. The bottom of the screen shows the standard Android navigation bar with back, home, and recent apps buttons.

10:08

TableLayout

Registration Form

First Name

Last Name

Gender

☒ Male ☐ Female

Favourites

☐ Indian ☐ American

☐ Italian ☐ Chinese

☐ Mexican ☐ Russian

Practical No – 05

Simple Calculator –

Program –

Activity_main.xml –

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

    <TextView
        android:id="@+id/textView"
        android:layout_width="365dp"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_alignParentEnd="true"
        android:layout_marginStart="40dp"
        android:layout_marginTop="68dp"
        android:layout_marginEnd="6dp"
        android:fontFamily="sans-serif-black"
        android:text="Modern Calculator"
        android:textColor="@color/teal_700"
        android:textSize="40dp" />

    <EditText
        android:id="@+id/n1"
        android:layout_width="347dp"
        android:layout_height="wrap_content"

        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="36dp"
        android:layout_marginTop="237dp"
        android:layout_marginBottom="114dp"
        android:ems="10"
        android:inputType="number" />

    <androidx.gridlayout.widget.GridLayout
        android:layout_width="wrap_content"
        android:layout_height="203dp"
        android:layout_alignParentStart="true"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="8dp"
        android:layout_marginBottom="106dp">

        <Button
            android:id="@+id/btn1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
```

```
        android:backgroundTint="@color/teal_700"
        android:text="1"
        android:textStyle="bold" />

<Button
    android:id="@+id/btn2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="2" />

<Button
    android:id="@+id/btn3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="3" />

<Button
    android:id="@+id/btnadd"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="+" />

<Button
    android:id="@+id/btn4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="@color/teal_700"
    android:text="4"
    app:layout_column="0"
    app:layout_row="1" />

<Button
    android:id="@+id/btn5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="5"
    app:layout_column="1"
    app:layout_row="1" />

<Button
    android:id="@+id/btn6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="6"
    app:layout_column="2"
    app:layout_row="1" />

<Button
    android:id="@+id/btnsub"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_marginLeft="10dp"
```

```

        android:backgroundTint="@color/teal_700"
        android:text="-"
        app:layout_column="3"
        app:layout_row="1" />

<Button
    android:id="@+id/btn7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:backgroundTint="@color/teal_700"
    android:text="7"
    app:layout_column="0"
    app:layout_row="2" />

<Button
    android:id="@+id/btn8"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="8"
    app:layout_column="1"
    app:layout_row="2" />

<Button
    android:id="@+id/btn9"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="9"
    app:layout_column="2"
    app:layout_row="2" />

<Button
    android:id="@+id/btnmul"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="*"
    app:layout_column="3"
    app:layout_row="2" />

<Button
    android:id="@+id/btndot"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:backgroundTint="@color/teal_700"
    android:text="."
    app:layout_column="0"
    app:layout_row="3" />

<Button
    android:id="@+id/btn0"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="10dp"
    android:backgroundTint="@color/teal_700"
    android:text="0"
    app:layout_column="1"
    app:layout_row="3" />

```

```

        <Button
            android:id="@+id/btnequal"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="10dp"
            android:backgroundTint="@color/teal_700"
            android:text="="
            app:layout_column="2"
            app:layout_row="3" />

        <Button
            android:id="@+id/btndiv"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignParentEnd="true"
            android:layout_marginLeft="10dp"
            android:backgroundTint="@color/teal_700"
            android:text="/"
            app:layout_column="3"
            app:layout_row="3" />
    </androidx.gridlayout.widget.GridLayout>

    <Button
        android:id="@+id/btnclear"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginStart="163dp"
        android:layout_marginBottom="39dp"
        android:backgroundTint="@color/teal_700"
        android:text="CE" />

    />
</RelativeLayout>

```

MainActivity.java –

```

package com.example.collegecalculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends AppCompatActivity {
    Button b1,b2,b3,b4,b5,b6,b7,b8,b9,b0,badd,bsub,bmul,bdiv,bdot,bequal,bclear;
    EditText editText;
    int n1,n2;
    String opr;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        b1=findViewById(R.id.btn1);
        b2=findViewById(R.id.btn2);
    }
}

```

```

b3=findViewById(R.id.btn3);
b4=findViewById(R.id.btn4);
b5=findViewById(R.id.btn5);
b6=findViewById(R.id.btn6);
b7=findViewById(R.id.btn7);
b8=findViewById(R.id.btn8);
b9=findViewById(R.id.btn9);
b0=findViewById(R.id.btn0);
editText=findViewById(R.id.n1);
badd=findViewById(R.id.btnadd);
bsub=findViewById(R.id.btnsub);
bmul=findViewById(R.id.btnmul);
bdiv=findViewById(R.id.btndiv);
bdot=findViewById(R.id.btndot);
bequal=findViewById(R.id.btnequal);
bclear=findViewById(R.id.btnclear);
b1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b1.getText().toString()));
    }
});
b2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b2.getText().toString()));
    }
});
b3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b3.getText().toString()));
    }
});
b4.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b4.getText().toString()));
    }
});
b5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b5.getText().toString()));
    }
});
b6.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b6.getText().toString()));
    }
});
b7.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b7.getText().toString()));
    }
});
b8.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b8.getText().toString()));
    }
});

```

```

});
b9.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b9.getText().toString()));
    }
});
b0.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        editText.setText((editText.getText()+b0.getText().toString()));
    }
});
bclear.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        editText.setText("");
    }
});
badd.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        n1=Integer.parseInt(editText.getText().toString());
        opr="add";
        editText.setText(null);
    }
});
bsub.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        n1=Integer.parseInt(editText.getText().toString());
        opr="sub";
        editText.setText(null);
    }
});
bmul.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        n1=Integer.parseInt(editText.getText().toString());
        opr="mul";
        editText.setText(null);
    }
});
bdiv.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        n1=Integer.parseInt(editText.getText().toString());
        opr="div";
        editText.setText(null);
    }
});
bequal.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        n2=Integer.parseInt(editText.getText().toString());
        switch(opr)
        {
            case "add":
                editText.setText((n1+n2)+"");
                break;
            case "sub":
                editText.setText(n1-n2+"");
                break;
        }
    }
});

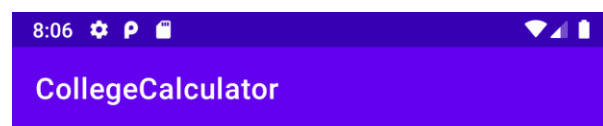
```

```

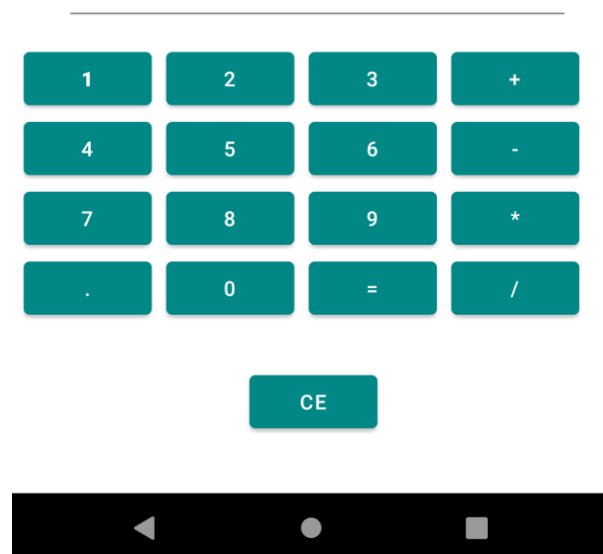
        case "mul":
            editText.setText(n1*n2+"");
            break;
        case "div":
            editText.setText(n1/n2+"");
            break;
    }
});
}
}

```

Output –



Modern Calculator



Practical No – 06

Intent

Program –

Activity_main.xml –

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

    <Button
        android:id="@+id/buttonnext"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="64dp"
        android:text="submit"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="164dp"
        android:ems="10"
        android:hint="First Name"
        android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editTextTextPersonName2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="44dp"
        android:ems="10"
        android:hint="Last Name"
        android:inputType="textPersonName"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName" />

    <EditText
        android:id="@+id/editTextTextPersonName3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="4dp"
        android:layout_marginTop="52dp"
```

```

        android:ems="10"
        android:hint="Student Id"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="@+id/editTextTextPersonName2"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName2" />

<EditText
    android:id="@+id/editTextTextPersonName4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="40dp"
    android:ems="10"
    android:hint="Book Name"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="@+id/editTextTextPersonName3"
    app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName3" />

<TextView
    android:id="@+id/textView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="64dp"
    android:layout_marginTop="36dp"
    android:text="Library Management"
    android:textColor="#0826D1"
    android:textSize="30dp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="36dp"
    android:layout_marginTop="16dp"
    android:text="Book Request"
    android:textColor="#1430C6"
    android:textSize="30dp"
    app:layout_constraintStart_toStartOf="@+id/textView2"
    app:layout_constraintTop_toBottomOf="@+id/textView2" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

Activity_second.xml –

```

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

    <Button
        android:id="@+id/back"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="536dp"
        android:text="Linkedin"
        app:layout_constraintEnd_toEndOf="parent"

```

```
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
```

```
<TextView
    android:id="@+id/textView"
    android:layout_width="204dp"
    android:layout_height="44dp"
    android:text="TextView"
    android:textSize="20dp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.211" />
```

```
<TextView
    android:id="@+id/textView1"
    android:layout_width="204dp"
    android:layout_height="44dp"
    android:text="TextView"
    android:textSize="20dp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.321" />
```

```
<TextView
    android:id="@+id/textView4"
    android:layout_width="204dp"
    android:layout_height="44dp"
    android:layout_marginTop="12dp"
    android:text="TextView"
    android:textSize="20dp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.429" />
```

```
<TextView
    android:id="@+id/textView5"
    android:layout_width="204dp"
    android:layout_height="44dp"
    android:text="TextView"
    android:textSize="20dp"
    android:textStyle="bold"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.58" />
```

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

MainActivity.java –

```
package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    Button button;
    EditText first,last,id,book;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        button=findViewById(R.id.buttonnext);
        first=findViewById(R.id.editTextTextPersonName);
        last=findViewById(R.id.editTextTextPersonName2);
        id=findViewById(R.id.editTextTextPersonName3);
        book=findViewById(R.id.editTextTextPersonName4);

        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String firstname=first.getText().toString();
                String lastname=last.getText().toString();
                int sid=Integer.parseInt(id.getText().toString());
                String bookNo=book.getText().toString();
                System.out.println(firstname+" "+lastname+" "+sid+" "+bookNo);
                Intent intent=new Intent(MainActivity.this,SecondActivity.class);
                intent.putExtra("first",firstname);
                intent.putExtra("second",lastname);
                intent.putExtra("id",sid);
                intent.putExtra("bookNo",bookNo);
                startActivity(intent);
            }
        });
    }
}
```

SecondActivity.java –

```
package com.example.intent;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

public class SecondActivity extends AppCompatActivity {
```

```

Button button;
TextView textView1,textView2,textView3,textView4;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_second);
    textView1=findViewById(R.id.textView);
    textView2=findViewById(R.id.textView1);
    textView3=findViewById(R.id.textView4);
    textView4=findViewById(R.id.textView5);
    button=findViewById(R.id.back);
    Intent intent=getIntent();
    String user= intent.getStringExtra("first");
    String pass=intent.getStringExtra("second");
    Integer id=intent.getIntExtra("id",0);
    String bookNo=intent.getStringExtra("bookNo");

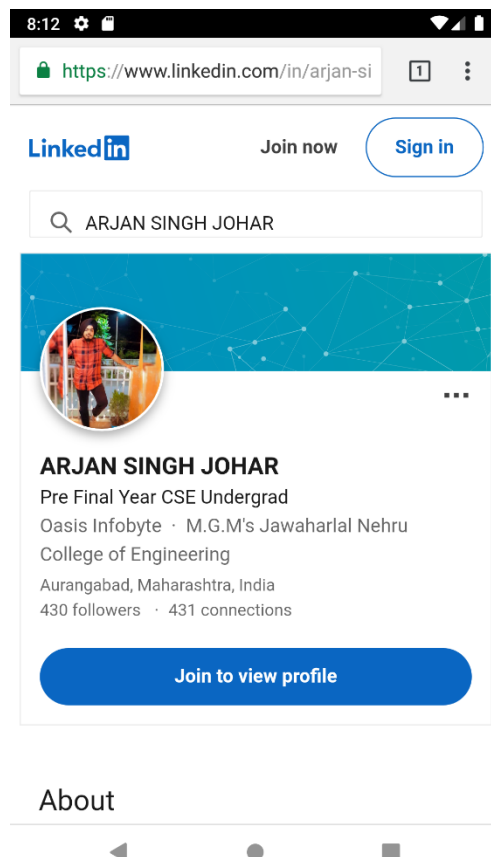
    System.out.println(user+" "+pass+" "+id+" "+bookNo);
    textView1.setText(user);
    textView2.setText(pass);
    textView3.setText(id.toString());
    textView4.setText(bookNo);
    //    System.out.println(user+" "+pass+" "+id+" "+bookNo);
    button.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {

            Intent intent2=new Intent(Intent.ACTION_VIEW,
Uri.parse("https://www.linkedin.com/in/arjan-singh-johar-5a3223191/"));
            startActivity(intent2);

        }
    });
}

```

Output –



Practical No – 07

Broadcast Receiver –

Program –

MainActivity.java –

```
package com.example.broadcastreceiver;

import androidx.appcompat.app.AppCompatActivity;

import android.content.BroadcastReceiver;
import android.content.IntentFilter;
import android.os.Bundle;

public class MainActivity extends AppCompatActivity {
    BroadcastReceiver br;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        br=new BatteryReceiver();
        IntentFilter intentFilter=new
IntentFilter("android.intent.action.BATTERY_CHANGED");
        registerReceiver(br,intentFilter);
    }

    @Override
    protected void onStop() {
        super.onStop();
        unregisterReceiver(br);
    }
}
```

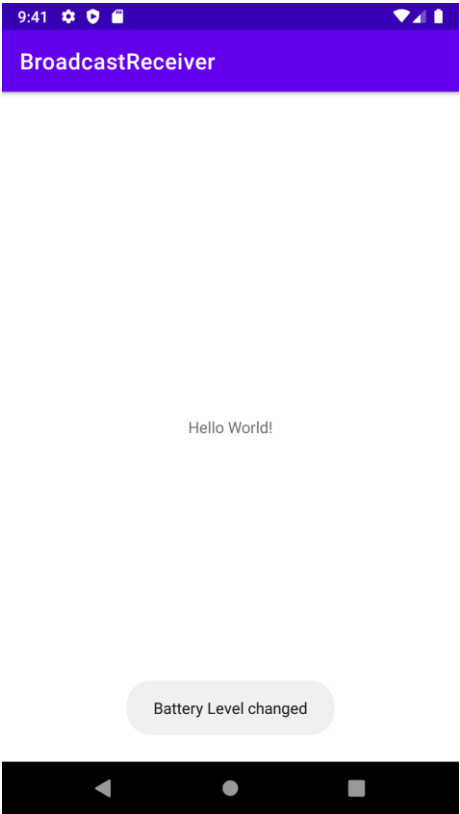
BatteryReceiver.java –

```
package com.example.broadcastreceiver;

import android.content.BroadcastReceiver;
import android.content.Context;
import android.content.Intent;
import android.widget.Toast;

public class BatteryReceiver extends BroadcastReceiver {
    @Override
    public void onReceive(Context context, Intent intent) {
        Toast.makeText(context, "Battery Level changed", Toast.LENGTH_SHORT).show();
    }
}
```

Output –



Practical No – 08

Activity_main.xml –

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

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Music Player"
        android:textSize="40dp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.497"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.103" />

    <Button
        android:id="@+id/play"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="44dp"
        android:text="PLAY"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.702" />

    <Button
        android:id="@+id/pause"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="PAUSE"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="@+id/play" />

    <Button
        android:id="@+id/stop"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="34dp"
        android:text="STOP"
        app:layout_constraintBaseline_toBaselineOf="@+id/pause"
        app:layout_constraintEnd_toEndOf="parent" />

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
```

```

        android:layout_marginBottom="23dp"
        app:layout_constraintBottom_toTopOf="@+id/play"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView"
        app:layout_constraintVertical_bias="0.75"
        app:srcCompat="@drawable/musicplayer" />

<Button
    android:id="@+id/next"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="8dp"
    android:layout_marginTop="56dp"
    android:text="NEXT"
    app:layout_constraintStart_toStartOf="@+id/pause"
    app:layout_constraintTop_toBottomOf="@+id/pause" />

</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity.java –

```

package com.example.musicplayercollege;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    Button pause,play,stop,next;
    MediaPlayer mp;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        play=findViewById(R.id.play);
        pause=findViewById(R.id.pause);
        stop=findViewById(R.id.stop);
        next=findViewById(R.id.next);
        mp=MediaPlayer.create(this,R.raw.pasoori);
        play.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                mp.start();
            }
        });
        pause.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                mp.pause();
            }
        });
        stop.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                mp.stop();
            }
        });
    }
}

```

```

    });
    next.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent=new Intent(MainActivity.this,MainActivity2.class);
            startActivity(intent);
        }
    });
}
}
}

```

Activity_main2.xml –

```

<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity2">

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Video Player"
        android:textSize="40dp"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/videoView2"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <LinearLayout
        android:id="@+id/linearLayout2"
        android:layout_width="404dp"
        android:layout_height="490dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="@+id/textView2">

        <VideoView
            android:id="@+id/videoView2"
            android:layout_width="417dp"
            android:layout_height="276dp"
            android:layout_marginTop="216dp"
            android:layout_weight="1"
            app:layout_constraintEnd_toEndOf="parent"
            app:layout_constraintStart_toStartOf="parent"
            app:layout_constraintTop_toTopOf="parent" />

    </LinearLayout>

</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity2.java –

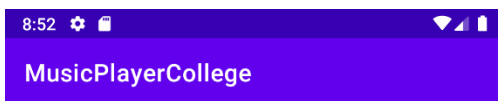
```
package com.example.musicplayercollege;

import androidx.appcompat.app.AppCompatActivity;

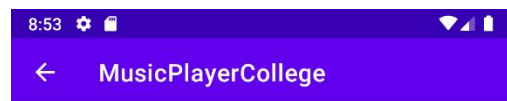
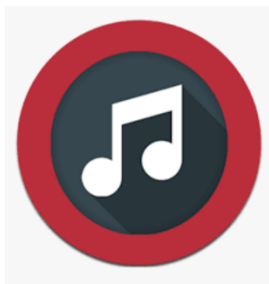
import android.os.Bundle;
import android.widget.MediaController;
import android.widget.VideoView;

public class MainActivity2 extends AppCompatActivity {
    VideoView videoView;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        videoView=findViewById(R.id.videoView2);
        String path="android.resource://" +getPackageName()+"/raw/pasoorivideo";
        videoView.setVideoPath(path);
        videoView.start();
        MediaController mediaController=new MediaController(this);
        videoView.setMediaController(mediaController);
    }
}
```

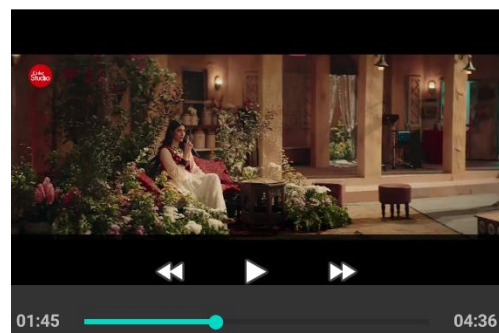
Output –



Music Player



Video Player



Practical No – 09

Program –

Activity_main.xml -

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

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="28dp"
        android:layout_marginTop="100dp"
        android:text="Send Text Message"
        android:textSize="40dp"
        android:textStyle="bold"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/msg"
```

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:ems="10"

android:hint="message"

android:inputType="textLongMessage"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toTopOf="parent" />

<Button

android:id="@+id/button"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_marginTop="84dp"

android:text="SEND"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.498"

app:layout_constraintStart_toStartOf="parent"

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

<EditText

android:id="@+id/phno"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_marginBottom="64dp"

```
android:ems="10"
android:hint="phone number"
android:inputType="phone"
app:layout_constraintBottom_toTopOf="@+id/msg"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintStart_toStartOf="parent" />
```

```
<Button
```

```
    android:id="@+id/call"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="5dp"
    android:layout_marginTop="40dp"
    android:text="MAKE CALL"
    app:layout_constraintStart_toStartOf="@+id/button"
    app:layout_constraintTop_toBottomOf="@+id/button" />
```

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

MainActivity.java –

```
package com.example.smssendcollege;
```

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

```
import android.Manifest;
```

```
import android.content.Intent;
```

```
import android.content.pm.PackageManager;
```

```
import android.net.Uri;
```

```

import android.os.Build;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    Button button,button1;
    EditText phNo,msg;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        button=findViewById(R.id.button);
        phNo=findViewById(R.id.phno);
        msg=findViewById(R.id.msg);
        button1=findViewById(R.id.call);
        button.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String phoneNo=phNo.getText().toString().trim();
                String message=msg.getText().toString().trim();
                if(Build.VERSION.SDK_INT>=Build.VERSION_CODES.M){
                    if(checkSelfPermission(android.Manifest.permission.SEND_SMS)==
PackageManager.PERMISSION_GRANTED) {

```



```

        SmsManager smsManager = SmsManager.getDefault();
        smsManager.sendTextMessage(phoneNo, null, message, null, null);
        Toast.makeText(MainActivity.this, "Message has sent",
Toast.LENGTH_SHORT).show();
    }
    else{
        String []permission={Manifest.permission.SEND_SMS};
        requestPermissions(permission,1);
    }
}
});
button1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(Build.VERSION.SDK_INT>=Build.VERSION_CODES.M){
            if(checkSelfPermission(Manifest.permission.CALL_PHONE)==
PackageManager.PERMISSION_GRANTED) {
                String phoneNo=phNo.getText().toString().trim();
                Intent intent=new Intent(Intent.ACTION_CALL);
                intent.setData(Uri.parse("tel:"+phoneNo));
                startActivity(intent);
            }
            else{
                String []permission={Manifest.permission.CALL_PHONE};
                requestPermissions(permission,1);
            }
        }
    }
});

```

```
    }  
    }  
});  
}  
}
```

Output –



Send Text Message

phone number

message

SEND

MAKE CALL



Practical No – 10

Program –

Activity_main.xml –

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

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView

        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Text to Speech"
        android:textSize="30dp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.483"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.121" />
```

<EditText

```
    android:id="@+id/editTextTextPersonName"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="64dp"
    android:ems="10"
    android:hint="Enter the message"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.497"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/textView"
    app:layout_constraintVertical_bias="0.04" />
```

<Button

```
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="152dp"
    android:text="Convert"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.498"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName" />
```

<SeekBar

```
        android:id="@+id/seekBar"
        android:layout_width="290dp"
        android:layout_height="36dp"
        android:layout_marginTop="76dp"
        app:layout_constraintBottom_toTopOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName"
        app:layout_constraintVertical_bias="0.0" />

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

MainActivity.java –

```
package com.example.texttospeech;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.speech.tts.TextToSpeech;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.SeekBar;
import java.util.Locale;

public class MainActivity extends AppCompatActivity {
    EditText message;
    Button button;
    TextToSpeech ts;
```

```

SeekBar seekBar;

@Override

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    message=findViewById(R.id.editTextTextPersonName);

    button=findViewById(R.id.button);

    seekBar=findViewById(R.id.seekBar);

    ts=new TextToSpeech(getApplicationContext(), new
TextToSpeech.OnInitListener() {

        @Override

        public void onInit(int status) {

            ts.setLanguage(Locale.getDefault());

        }

    });

    button.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View v) {

            String s=message.getText().toString();

            seekBar.setOnSeekBarChangeListener(new
SeekBar.OnSeekBarChangeListener() {

                @Override

                public void onProgressChanged(SearchBar seekBar, int progress, boolean
fromUser) {

                    float speechRate = (float) (progress + 1) / 10.0f;

                    ts.setSpeechRate(speechRate);

                }

                @Override

```

```
        public void onStartTrackingTouch(SeekBar seekBar) {  
            }  
        @Override  
        public void onStopTrackingTouch(SeekBar seekBar) {  
            }  
    };  
    ts.speak(s,TextToSpeech.QUEUE_FLUSH,null,null);  
    }  
});  
}  
}
```

Output –



Text to Speech

Enter the message



CONVERT



Practical No – 11

Program –

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

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Map Location"
        android:textStyle="bold"
        android:textSize="30dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.181" />

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



```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="326dp"
    android:text="Location"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

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

MainActivity.java –

```
package com.example.locationcollege;
```

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

```
import android.content.Intent;
```

```
import android.net.Uri;
```

```
import android.os.Bundle;
```

```
import android.view.View;
```

```
import android.widget.Button;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    Button button;
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState) {
```

```
        super.onCreate(savedInstanceState);
```

```
        setContentView(R.layout.activity_main);
```

```

button=findViewById(R.id.button);

button.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View view) {

        Uri uri=
Uri.parse("geo:https://www.google.com/maps?q="+Uri.encode("19.8799° N, 75.3557°
E"));

        Intent i=new Intent(Intent.ACTION_VIEW,uri);

        i.setPackage("com.google.android.apps.maps");

        startActivity(i);

    }

});

}

}

```

Output –



Map Location

LOCATION



Practical No – 12

Program –

Activity_main.xml –

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

<androidx.constraintlayout.widget.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="57dp"
        android:layout_marginBottom="111dp"
        android:text="Update"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintStart_toStartOf="parent" />

    <EditText
        android:id="@+id/rollno"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="49dp"
        android:ems="10"
```

```

        android:hint="Roll No"
        android:inputType="number"
        app:layout_constraintBottom_toTopOf="@+id/name"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent" />
<EditText
    android:id="@+id/name"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="2dp"
    android:layout_marginTop="240dp"
    android:ems="10"
    android:hint="Name"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="@+id/rollno"
    app:layout_constraintTop_toTopOf="parent" />
<Button
    android:id="@+id/button"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginBottom="264dp"
    android:text="Insert"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="@+id/button3"
    app:layout_constraintStart_toStartOf="@+id/button3" />
<Button
    android:id="@+id/button2"

```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginEnd="40dp"
        android:text="Select"
        app:layout_constraintBaseline_toBaselineOf="@+id/button"
        app:layout_constraintEnd_toEndOf="parent" />
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="110dp"
    android:layout_marginEnd="43dp"
    android:layout_marginBottom="106dp"
    android:text="Delete"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/button2" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

MainActivity.java –

```

package com.example.database;

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

```

```

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText rno,ename;
    Button insert,select,update,delete;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        rno = findViewById(R.id.rollno);
        ename = findViewById(R.id.name);
        insert = findViewById(R.id.button);
        select = findViewById(R.id.button2);
        update = findViewById(R.id.button3);
        delete = findViewById(R.id.button4);
        MyDatabase myDatabase = new MyDatabase(this);
        insert.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                int rollno = Integer.parseInt(rno.getText().toString());
                String name = ename.getText().toString();
                myDatabase.openDB();
                myDatabase.insertData(rollno,name);
                Toast.makeText(getApplicationContext(), "Data Inserted",
                Toast.LENGTH_SHORT).show();
                myDatabase.closeDB();
            }
        }
    }
}

```

```

});

select.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        myDatabase.openDB();

        Cursor result = myDatabase.selectData();

        if(result.getCount()==0)

        {

            Toast.makeText(MainActivity.this, "Data not Found",
Toast.LENGTH_SHORT).show();

        }

        else{

            StringBuffer buffer = new StringBuffer();

            while(result.moveToNext())

            {

                buffer.append("Roll No = "+result.getString(0)+"\n");

                buffer.append("Name = "+result.getString(1)+"\n");

            }

            Toast.makeText(getApplicationContext(), buffer,
Toast.LENGTH_SHORT).show();

            myDatabase.closeDB();

        }

    }

});

update.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

```

```

        myDatabase.openDB();
        int rollno = Integer.parseInt(rno.getText().toString());
        String name = ename.getText().toString();
        int isUpdated=myDatabase.updateData(rollno,name);
        if(isUpdated>0)
        {
            Toast.makeText(MainActivity.this, "Data Updated",
Toast.LENGTH_SHORT).show();
        }
        else
        {
            Toast.makeText(MainActivity.this, "Data not found",
Toast.LENGTH_SHORT).show();
        }
        myDatabase.closeDB();
    }
});
delete.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        int rollno = Integer.parseInt(rno.getText().toString());
        myDatabase.openDB();
        int delRows = myDatabase.deleteData(rollno);
        if(delRows>0)
        {
            Toast.makeText(MainActivity.this, "Data Deleted",
Toast.LENGTH_SHORT).show();
        }
    }
});

```



```

        else
        {
            Toast.makeText(MainActivity.this, "Data not found",
Toast.LENGTH_SHORT).show();
        }
        myDatabase.closeDB();
    }
});
}
}

```

MyDatabase.java –

```

package com.example.database;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import androidx.annotation.Nullable;
import java.util.Currency;

public class MyDatabase extends SQLiteOpenHelper {
    private static final String DATABASE_NAME="Student";
    private static final String TABLE_NAME="Records";
    SQLiteDatabase sqLiteDatabase;
    public MyDatabase(@Nullable Context context) {
        super(context, DATABASE_NAME, null,1);
    }
}

```

```

@Override

public void onCreate(SQLiteDatabase sqLiteDatabase) {

    sqLiteDatabase.execSQL("CREATE TABLE "+TABLE_NAME+"(rollno
integer,name text)");

}

public void openDB()

{

    sqLiteDatabase = getWritableDatabase();

}

public void closeDB()

{

    sqLiteDatabase.close();

}

public void insertData(int rollNo , String name)

{

    ContentValues cv = new ContentValues();

    cv.put("RollNo",rollNo);

    cv.put("Name",name);

    sqLiteDatabase.insert(TABLE_NAME,null,cv);

}

public Cursor selectData()

{

    Cursor cursor = sqLiteDatabase.rawQuery("select * from
"+TABLE_NAME,null,null);

    return cursor;

}

public int updateData(int no,String name)

```

```
{  
    ContentValues contentValues = new ContentValues();  
    contentValues.put("RollNo",no);  
    contentValues.put("Name",name);  
    return sqLiteDatabase.update(TABLE_NAME,contentValues,"RollNo=?",new  
String[]{String.valueOf(no)});  
}  
public int deleteData(int no)  
{  
    return sqLiteDatabase.delete(TABLE_NAME,"RollNo=?",new  
String[]{String.valueOf(no)});  
}  
@Override  
public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1) {  
}  
}
```

Output –

Insert –

A screenshot of a mobile application titled "Database". It features two input fields at the top: the first contains "3038" and the second contains "Robert". Below these fields are four red buttons arranged in a 2x2 grid: "INSERT", "SELECT", "UPDATE", and "DELETE". A light blue toast message at the bottom center reads "Data Inserted". The status bar at the top shows the time as 2:49.

Select –

A screenshot of the "Database" app. The input fields contain "3038" and "Robert". The "SELECT" button is highlighted with a red border. A light blue toast message at the bottom center displays the retrieved data: "Roll No = 3038", "Name = Avaisha", "Roll No = 3038", and "Name = Robert". The status bar shows the time as 2:50.

Update –

A screenshot of the "Database" app. The input fields contain "3038" and "Aliza". The "UPDATE" button is highlighted with a red border. A light blue toast message at the bottom center reads "Data Updated". The status bar shows the time as 2:51.

Delete –

A screenshot of the "Database" app. The input fields contain "3038" and "Avaisha". The "DELETE" button is highlighted with a red border. A light blue toast message at the bottom center reads "Data Deleted". The status bar shows the time as 2:53.