

COURSE OUTCOME 2

PROGRAM NO:1

AIM: Design a registration activity and store registration details in local memory of phone using Intents and SharedPreferences

PROGRAM CODE:

XML CODE:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#B5CCCF"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <EditText
        android:id="@+id/name"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:backgroundTint="#00BCD4"
        android:ems="10"
        android:hint="Name"
        android:inputType="textPersonName" />

    <EditText
        android:id="@+id/address"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:backgroundTint="#00BCD4"
        android:ems="10"
        android:hint="Address"
```

```
    android:inputType="textPersonName"
    android:minHeight="48dp" />
```

```
<EditText
    android:id="@+id/email"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:backgroundTint="#00BCD4"
    android:ems="10"
    android:hint="Email"
    android:inputType="textEmailAddress" />
```

```
<EditText
    android:id="@+id/password"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:backgroundTint="#00BCD4"
    android:ems="10"
    android:hint="Password"
    android:inputType="textPassword" />
```

```
<EditText
    android:id="@+id/phno"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:backgroundTint="#00BCD4"
    android:ems="10"
    android:hint="Phone"
    android:inputType="phone" />
```

```
<TextView
    android:id="@+id/textView"
    android:layout_width="match_parent"
    android:layout_height="35dp"
    android:backgroundTint="#00BCD4"
    android:text="Gender"
    android:textAppearance="@style/TextAppearance.AppCompat.Body2"
    android:textSize="16sp" />
```

```
<RadioGroup
    android:id="@+id/gender"
    android:layout_width="match_parent"
    android:layout_height="99dp">
```

```
    <RadioButton
        android:id="@+id/male"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:backgroundTint="#00BCD4"
        android:text="Male" />
```

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

```
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:backgroundTint="#00BCD4"
        android:text="Female" />
```

```
</RadioGroup>
```

```
<Button
    android:id="@+id/validate1"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:backgroundTint="#009688"
    android:onClick="callSecondActivity"
    android:text="SUBMIT"
    android:textSize="20sp" />
```

```
</LinearLayout>
```

activity_main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#B5CCCF"
    android:orientation="vertical"
    tools:context=".Main2Activity">
    <TextView
        android:id="@+id/textView1"
        android:layout_width="match_parent"
        android:layout_height="35dp"
        android:backgroundTint="#00BCD4"
        android:text="Registered User Details"
        android:textAppearance="@style/TextAppearance.AppCompat.Body2"
        android:textSize="16sp" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="match_parent"
        android:layout_height="35dp"
        android:backgroundTint="#00BCD4"
        android:text=""
        android:textAppearance="@style/TextAppearance.AppCompat.Body2"
        android:textSize="16sp" />

    <TextView
        android:id="@+id/textView3"
        android:layout_width="match_parent"
        android:layout_height="35dp"
        android:backgroundTint="#00BCD4"
        android:text=""
        android:textAppearance="@style/TextAppearance.AppCompat.Body2"
        android:textSize="16sp" />
```

```

<TextView
    android:id="@+id/textView4"
    android:layout_width="match_parent"
    android:layout_height="35dp"
    android:backgroundTint="#00BCD4"
    android:text=""
    android:textAppearance="@style/TextAppearance.AppCompat.Body2"
    android:textSize="16sp" />
<TextView
    android:id="@+id/textView5"
    android:layout_width="match_parent"
    android:layout_height="35dp"
    android:backgroundTint="#00BCD4"
    android:text=""
    android:textAppearance="@style/TextAppearance.AppCompat.Body2"
    android:textSize="16sp" />
</LinearLayout>

```

JAVA CODE:

MainActivity.java

```

package com.example.register_intent;
import androidx.appcompat.app.AppCompatActivity;

import android.content.SharedPreferences;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText e1,e2,e3,e4,e5;
    Button b1;
    RadioButton r1,r2;
    RadioGroup r;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1=(EditText)findViewById(R.id.name);
        e2=(EditText)findViewById(R.id.address);
        e3=(EditText)findViewById(R.id.email);
        e4=(EditText)findViewById(R.id.password);
        e5=(EditText)findViewById(R.id.phno);
        b1=(Button)findViewById(R.id.validate1);
        r=(RadioGroup)findViewById(R.id.gender);
    }
}

```

```

r1=(RadioButton)findViewById(R.id.male);
r2=(RadioButton)findViewById(R.id.female);
b1.setOnClickListener(new View.OnClickListener(){
    @Override
    public void onClick(View v)
    {
        validate();

    }
});

}
protected void onResume() {
    super.onResume();
    SharedPreferences sh = getSharedPreferences("MySharedPref", MODE_PRIVATE);

    String s1 = sh.getString("name", "");
    String s2 = sh.getString("address", "");
    String s3 = sh.getString("email", "");
    String s4 = sh.getString("phno", "");

    e1.setText(s1);
    e2.setText(s2);
    e3.setText(s3);
    e5.setText(s4);
}
protected void onPause() {
    super.onPause();
    SharedPreferences sharedPreferences = getSharedPreferences("MySharedPref", MODE_PRIVATE);
    SharedPreferences.Editor myEdit = sharedPreferences.edit();
    myEdit.putString("name", e1.getText().toString());
    myEdit.putString("address", e2.getText().toString());
    myEdit.putString("email", e3.getText().toString());
    myEdit.putString("phno", e5.getText().toString());

    myEdit.apply();
}

public void validate()
{
    String name=e1.getText().toString();
    String email=e3.getText().toString().trim();
    String address=e2.getText().toString();
    String password=e4.getText().toString();
    String namePattern="[0-9!@#$$%^&*]";
    String emailPattern="[a-zA-Z0-9._-]+@[a-z]+\\.+[a-z]+";
    String pno=e5.getText().toString();
    int valid=1;

    if(name.length()==0)
    {
        e1.getText().clear();

```

```

        e1.requestFocus();
        e1.setError("Enter name ");
        Toast.makeText(getApplicationContext(), "Enter valid name", Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(name.matches(".*[0-9].*"))
    {
        e1.getText().clear();
        e1.requestFocus();
        e1.setError("Name contains illegal characters");
        Toast.makeText(getApplicationContext(), "Enter valid name", Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(address.length()==0)
    {
        e2.getText().clear();
        e2.requestFocus();
        e2.setError("Enter address");
        Toast.makeText(getApplicationContext(), "Enter valid address", Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(email.length()==0)
    {
        e3.getText().clear();
        e3.requestFocus();
        e3.setError("Enter email address");
        Toast.makeText(getApplicationContext(), "Enter valid email", Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(!email.matches(emailPattern))
    {
        e3.getText().clear();
        e3.requestFocus();
        e3.setError("Invalid email address");
        Toast.makeText(getApplicationContext(), "Enter valid email ", Toast.LENGTH_SHORT).show();
        valid++;
    }
    if(password.length()==0)
    {
        e4.requestFocus();
        e4.setError("Enter password");
        valid++;
    }
    if(password.length()<5)
    {
        e4.requestFocus();
        e4.setError("Enter an 8 digit password");
        valid++;
    }
    if(!password.equals("password"))
    {
        Toast.makeText(getApplicationContext(), "Incorrect password", Toast.LENGTH_SHORT).show();
    }
}

```

```

        if (r.getCheckedRadioButtonId() == -1)
        {
            Toast.makeText(getApplicationContext(), "Please select any gender",
Toast.LENGTH_SHORT).show();
            valid++;
        }
        else
        {
            if(r1.isChecked())
            {
                Toast.makeText(getApplicationContext(), "Welcome Mr."+name, Toast.LENGTH_SHORT).show();
            }
            if(r2.isChecked())
            {
                Toast.makeText(getApplicationContext(), "Welcome Ms."+name,
Toast.LENGTH_SHORT).show();
            }
        }
        if(pno.length()<10)
        {
            e5.setError("Phone number should be of atleast 10 digits");
            valid++;
        }
        if(valid==1)
        {
            Toast.makeText(getApplicationContext(), "VALIDATION SUCESSFULL",
Toast.LENGTH_SHORT).show();
            Intent i = new Intent(getApplicationContext(), MainActivity2.class);
            i.putExtra("1", name);
            i.putExtra("2", email);
            i.putExtra("3", address);
            startActivity(i);
        }

    }
}

```

MainActivity2.java

```

package com.example.register_intent;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity2 extends AppCompatActivity {

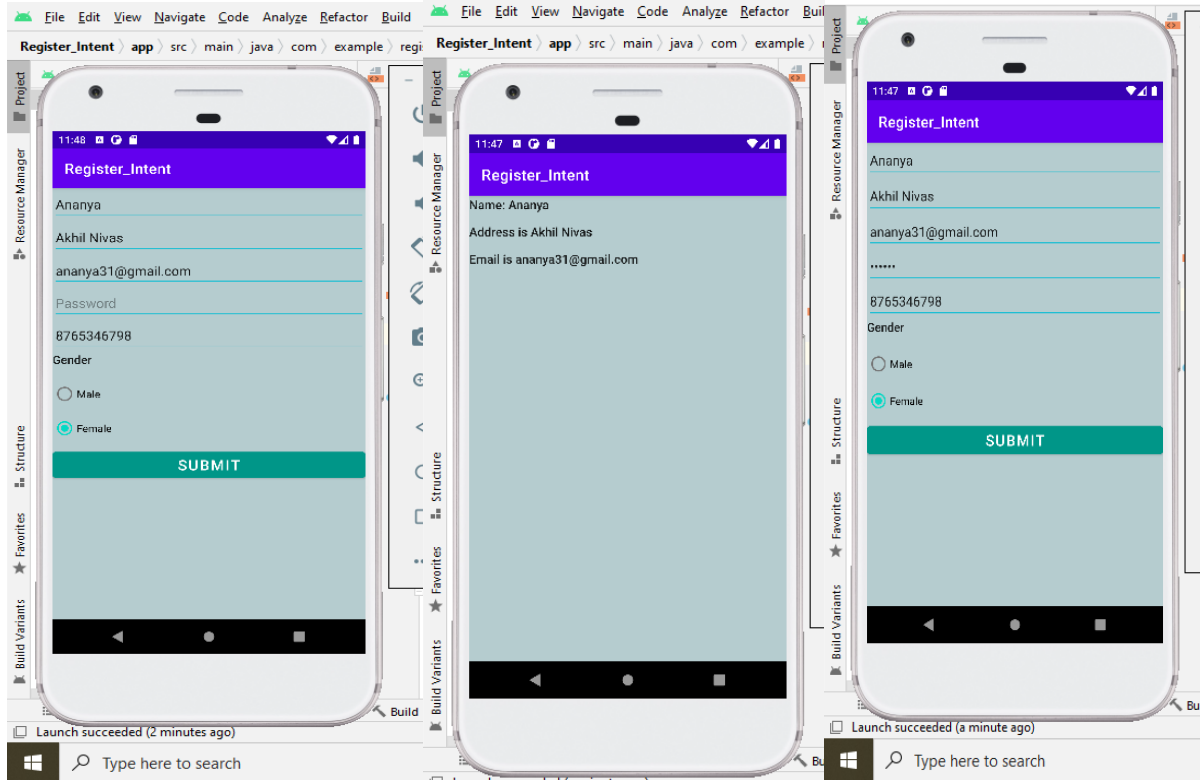
```

```
@Override
protected void onCreate(Bundle savedInstanceState) {
    TextView t1,t2,t3;
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main2);
    Bundle extras = getIntent().getExtras();
    t1=(TextView) findViewById(R.id.textView1);
    t2=(TextView) findViewById(R.id.textView2);
    t3=(TextView) findViewById(R.id.textView3);
    //t4=(TextView) findViewById(R.id.textView4);
    //t5=(TextView) findViewById(R.id.textView5);

    String value1 = extras.getString("1");
    String value2 = extras.getString("2");
    String value3 = extras.getString("3");
    t1.setText("Name: "+value1);
    t2.setText("Address is "+ value3);
    t3.setText("Email is "+ value2);

}
public void callFirstActivity(View view){
    Intent i = new Intent(getApplicationContext(), MainActivity.class);
    startActivity(i);
}
}
```

OUTPUT



RESULT: The program executed successfully and output is obtained

PROGRAM NO:2

AIM: Design a simple Calculator using GridLayout and Cascaded LinearLayout

PROGRAM CODE:

XML CODE:

```
<?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"
    android:background="#F6CACA"
    tools:context=".MainActivity">

    <android.widget.GridLayout
        android:id="@+id/gridLayout"
        android:layout_width="398dp"
        android:layout_height="496dp"
        android:layout_marginStart="1dp"
        android:layout_marginTop="45dp"
        android:layout_marginEnd="1dp"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/edt1">

        <Button
            android:id="@+id/button2"
            android:layout_width="100dp"
            android:layout_height="60dp"
            android:text="C"
            android:textSize="20sp"
            app:layout_column="0"
            app:layout_row="0" />

        <Button
            android:id="@+id/button3"
            android:layout_width="98dp"
            android:layout_height="60dp"
            android:text="()"
            android:textSize="20sp"
            app:layout_column="1"
            app:layout_row="0" />
```

```
<Button
    android:id="@+id/button4"
    android:layout_width="wrap_content"
    android:layout_height="60dp"
    android:text="%"
    android:textSize="20sp"
    app:layout_column="2"
    app:layout_row="0" />
```

```
<Button
    android:id="@+id/button5"
    android:layout_width="121dp"
    android:layout_height="64dp"
    android:layout_row="0"
    android:layout_column="3"
    android:text="/"
    android:textSize="20sp"
    app:layout_column="3"
    app:layout_row="0" />
```

```
<Button
    android:id="@+id/button6"
    android:layout_width="91dp"
    android:layout_height="59dp"
    android:layout_row="1"
    android:layout_column="0"
    android:text="7"
    android:textSize="20sp"
    app:layout_column="0"
    app:layout_row="1" />
```

```
<Button
    android:id="@+id/button7"
    android:layout_width="wrap_content"
    android:layout_height="60dp"
    android:layout_row="2"
    android:layout_column="1"
    android:text="4"
    android:textSize="20sp"
    app:layout_column="0"
    app:layout_row="2" />
```

```
<Button
    android:id="@+id/button8"
    android:layout_width="wrap_content"
    android:layout_height="61dp"
    android:layout_row="1"
    android:layout_column="2"
    android:text="1"
    android:textSize="20sp"
    app:layout_column="0"
    app:layout_row="3" />
```

```
<Button
    android:id="@+id/button9"
    android:layout_width="123dp"
    android:layout_height="65dp"
    android:text="+/-"
    android:textSize="20sp"
    app:layout_column="0"
    app:layout_row="4" />

<Button
    android:id="@+id/button10"
    android:layout_width="wrap_content"
    android:layout_height="61dp"
    android:layout_row="4"
    android:layout_column="0"
    android:text="8"
    android:textSize="20sp"
    app:layout_column="1"
    app:layout_row="1" />

<Button
    android:id="@+id/button11"
    android:layout_width="wrap_content"
    android:layout_height="59dp"
    android:layout_row="4"
    android:layout_column="1"
    android:text="9"
    android:textSize="20sp"
    app:layout_column="2"
    app:layout_row="1" />

<Button
    android:id="@+id/button12"
    android:layout_width="113dp"
    android:layout_height="62dp"
    android:layout_row="2"
    android:layout_column="3"
    android:text="*"
    android:textSize="20sp"
    app:layout_column="3"
    app:layout_row="1" />

<Button
    android:id="@+id/button13"
    android:layout_width="wrap_content"
    android:layout_height="61dp"
    android:layout_row="1"
    android:layout_column="1"
    android:text="5"
    android:textSize="20sp"
    app:layout_column="1"
    app:layout_row="2" />
```

```
<Button
    android:id="@+id/button14"
    android:layout_width="wrap_content"
    android:layout_height="64dp"
    android:layout_row="2"
    android:layout_column="2"
    android:text="2"
    android:textSize="20sp"
    app:layout_column="1"
    app:layout_row="3" />
```

```
<Button
    android:id="@+id/button15"
    android:layout_width="wrap_content"
    android:layout_height="60dp"
    android:layout_row="3"
    android:layout_column="2"
    android:text="0"
    android:textSize="20sp"
    app:layout_column="1"
    app:layout_row="4" />
```

```
<Button
    android:id="@+id/button16"
    android:layout_width="wrap_content"
    android:layout_height="60dp"
    android:layout_row="2"
    android:layout_column="0"
    android:text="6"
    android:textSize="20sp"
    app:layout_column="2"
    app:layout_row="2" />
```

```
<Button
    android:id="@+id/button17"
    android:layout_width="wrap_content"
    android:layout_height="61dp"
    android:layout_row="3"
    android:layout_column="0"
    android:text="-"
    android:textSize="20sp"
    app:layout_column="3"
    app:layout_row="2" />
```

```
<Button
    android:id="@+id/button18"
    android:layout_width="wrap_content"
    android:layout_height="59dp"
    android:text="3"
    android:textSize="20sp"
    app:layout_column="2"
    app:layout_row="3" />
```

```
<Button
    android:id="@+id/button19"
    android:layout_width="wrap_content"
    android:layout_height="61dp"
    android:layout_row="4"
    android:layout_column="2"
    android:text="."
    android:textSize="24sp"
    app:layout_column="2"
    app:layout_row="4" />
```

```
<Button
    android:id="@+id/button20"
    android:layout_width="121dp"
    android:layout_height="59dp"
    android:layout_row="3"
    android:layout_column="3"
    android:text="+"
    android:textSize="20sp"
    app:layout_column="3"
    app:layout_row="3" />
```

```
<Button
    android:id="@+id/button21"
    android:layout_width="111dp"
    android:layout_height="62dp"
    android:layout_row="4"
    android:layout_column="3"
    android:text="="
    android:textSize="20sp"
    app:layout_column="3"
    app:layout_row="4" />
```

```
</android.widget.GridLayout>
```

```
<EditText
    android:id="@+id/edt1"
    android:layout_width="423dp"
    android:layout_height="93dp"
    android:layout_marginTop="140dp"
    android:layout_marginBottom="95dp"
    android:background="#A3D4DA"
    android:backgroundTint="#CCEBEF"
    android:textSize="34sp"
    app:layout_constraintBottom_toTopOf="@+id/gridLayout"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="1.0"
    tools:ignore="MissingConstraints" />
```

```
<EditText
    android:id="@+id/editTextTextPersonName2"
```

```

        android:layout_width="406dp"
        android:layout_height="61dp"
        android:layout_marginStart="1dp"
        android:layout_marginTop="15dp"
        android:layout_marginBottom="42dp"
        android:background="#F6C7D7"
        android:ems="10"
        android:foregroundGravity="center"
        android:gravity="center"
        android:inputType="textPersonName"
        android:text="Calculator"
        android:textColor="#673AB7"
        android:textSize="50sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toTopOf="@+id/edt1"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

```

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

JAVA CODE:

```

package com.example.calculator_grid;

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

public class MainActivity extends AppCompatActivity {

    Button button0, button1, button2, button3, button4, button5, button6,
        button7, button8, button9, buttonAdd, buttonSub, buttonDivision,
        buttonMul, buttond, buttonC, buttonEqual, buttonperc;
    EditText cEditText;

    float mValueOne, mValueTwo;

    boolean cAddition, mSubtract, cMultiplication, cDivision, cperc;

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

        button0 = (Button) findViewById(R.id.button15);
        button1 = (Button) findViewById(R.id.button8);
        button2 = (Button) findViewById(R.id.button14);
        button3 = (Button) findViewById(R.id.button18);
    }
}

```

```
button4 = (Button) findViewById(R.id.button7);
button5 = (Button) findViewById(R.id.button13);
button6 = (Button) findViewById(R.id.button16);
button7 = (Button) findViewById(R.id.button6);
button8 = (Button) findViewById(R.id.button10);
button9 = (Button) findViewById(R.id.button11);
buttond = (Button) findViewById(R.id.button19);
buttonAdd = (Button) findViewById(R.id.button20);
buttonSub = (Button) findViewById(R.id.button17);
buttonMul = (Button) findViewById(R.id.button12);
buttonDivision = (Button) findViewById(R.id.button5);
buttonC = (Button) findViewById(R.id.button2);
buttonperc = (Button) findViewById(R.id.button4);
buttonEqual = (Button) findViewById(R.id.button21);
cEditText = (EditText) findViewById(R.id.edt1);
```

```
button1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText(cEditText.getText() + "1");
    }
});
```

```
button2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText(cEditText.getText() + "2");
    }
});
```

```
button3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText(cEditText.getText() + "3");
    }
});
```

```
button4.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText(cEditText.getText() + "4");
    }
});
```

```
button5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText(cEditText.getText() + "5");
    }
});
```

```
button6.setOnClickListener(new View.OnClickListener() {
```



```

        @Override
        public void onClick(View v) {
            cEditText.setText(cEditText.getText() + "6");
        }
    });

    button7.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            cEditText.setText(cEditText.getText() + "7");
        }
    });

    button8.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            cEditText.setText(cEditText.getText() + "8");
        }
    });

    button9.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            cEditText.setText(cEditText.getText() + "9");
        }
    });

    button0.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            cEditText.setText(cEditText.getText() + "0");
        }
    });

    buttonAdd.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {

            if (cEditText == null) {
                cEditText.setText("");
            } else {
                mValueOne = Float.parseFloat(cEditText.getText() + "");
                cAddition = true;
                cEditText.setText(null);
            }
        }
    });

    buttonSub.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            mValueOne = Float.parseFloat(cEditText.getText() + "");
            mSubtract = true;

```

```

        cEditText.setText(null);
    }
});

buttonMul.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        mValueOne = Float.parseFloat(cEditText.getText() + "");
        cMultiplication = true;
        cEditText.setText(null);
    }
});

buttonDivision.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        mValueOne = Float.parseFloat(cEditText.getText() + "");
        cDivision = true;
        cEditText.setText(null);
    }
});

buttonperc.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        mValueOne = Float.parseFloat(cEditText.getText() + "");
        cperc = true;
        cEditText.setText(null);
    }
});

buttonEqual.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        mValueTwo = Float.parseFloat(cEditText.getText() + "");

        if (cAddition == true) {
            cEditText.setText(mValueOne + mValueTwo + "");
            cAddition = false;
        }

        if (mSubtract == true) {
            cEditText.setText(mValueOne - mValueTwo + "");
            mSubtract = false;
        }

        if (cMultiplication == true) {
            cEditText.setText(mValueOne * mValueTwo + "");
            cMultiplication = false;
        }

        if (cDivision == true) {
            cEditText.setText(mValueOne / mValueTwo + "");
            cDivision = false;
        }
    }
});

```

```
        }
        if (cperc == true) {
            cEditText.setText((mValueOne / mValueTwo)*100 + "");
            cperc = false;
        }
    }
});

buttonC.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText("");
    }
});

buttonD.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        cEditText.setText(cEditText.getText() + ".");
    }
});
}
```

OUTPUT



RESULT: The program executed successfully and output is obtained

PROGRAM NO:3

AIM: Create a Facebook page using RelativeLayout; set properties using .xml file

PROGRAM CODE:

XML CODE:

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#27337A"
    android:backgroundTint="#37427E"
    android:foregroundTint="#F3EBEB"
    tools:context=".MainActivity">
```

```
<ImageView
    android:id="@+id/imageView1"
    android:layout_width="309dp"
    android:layout_height="130dp"
    android:layout_centerHorizontal="true"
    app:srcCompat="@drawable/download" />
```

```
<ImageView
    android:id="@+id/imageView2"
    android:layout_width="110dp"
    android:layout_height="wrap_content"
    android:layout_below="@+id/imageView1"
    android:layout_alignParentLeft="false"
    android:layout_marginTop="23dp"
    app:srcCompat="@drawable/download3" />
```

```
<TextView
    android:id="@+id/editText1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignLeft="@id/imageView2"
    android:layout_alignBottom="@id/imageView2"
    android:layout_alignParentBottom="false"
    android:layout_marginLeft="134dp"
    android:layout_marginBottom="44dp"
    android:layout_toRightOf="@id/imageView2"
    android:ems="10"
```

```
    android:fontFamily="sans-serif-black"
    android:inputType="textPersonName"
    android:text="Ananya"
    android:textColor="#FAF1F1"
    android:textSize="20sp" />
```

```
<CheckBox
    android:id="@+id/check1"
    android:layout_width="217dp"
    android:layout_height="26dp"
    android:layout_below="@id/imageView2"
    android:layout_marginTop="63dp"
    android:layout_marginBottom="56dp"
    android:foregroundTint="#F3EBEB"
    android:text="Log in to another account"
    android:textColor="#F8F0F0"
    android:textStyle="bold" />
```

```
<CheckBox
    android:layout_width="217dp"
    android:layout_height="26dp"
    android:layout_alignTop="@+id/check1"
    android:layout_marginTop="60dp"
    android:layout_marginBottom="56dp"
    android:text="Find your account"
    android:textColor="#FAF5F5"
    android:textStyle="bold" />
```

```
<EditText
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentBottom="true"
    android:layout_centerInParent="true"
    android:layout_marginBottom="72dp"
    android:background="@color/purple_700"
    android:backgroundTint="#404D93"
    android:text="Create new Facebook account"
    android:textColor="@color/white"
    android:textSize="20dp"
    android:textStyle="bold" />
```

```
</RelativeLayout>
```

JAVA CODE:

```
package com.example.frameLayout;
```

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

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

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

```
    @Override
```

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

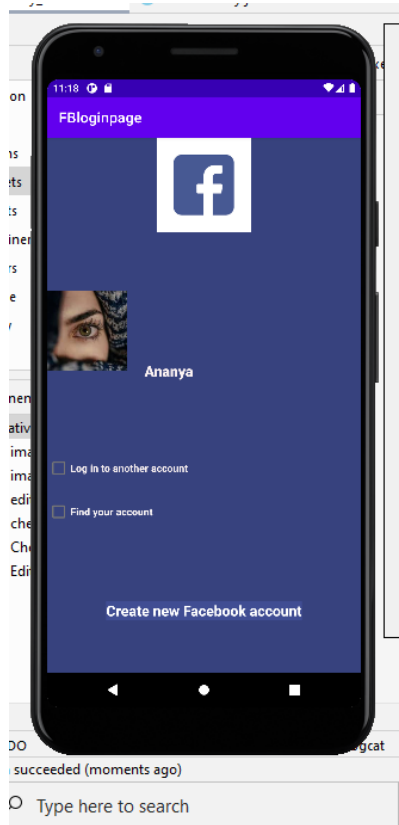
```
        super.onCreate(savedInstanceState);
```

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

```
    }
```

```
}
```


OUTPUT



RESULT: The program executed successfully and output is obtained

PROGRAM NO:4

AIM: Develop an application that toggles image using FrameLayout

PROGRAM CODE:

XML CODE:

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

    <ImageView
        android:id="@+id/imageView1"
        android:layout_width="427dp"
        android:layout_height="wrap_content"
        android:layout_gravity="left|top"
        android:background="#CACAC8"
        app:srcCompat="@drawable/switchon" />

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="396dp"
        android:layout_height="wrap_content"
        android:layout_gravity="left|top"
        android:visibility="gone"
        app:srcCompat="@drawable/fanon" />
</FrameLayout>
```

JAVA CODE:

```
package com.example.frame_layout;

import androidx.appcompat.app.AppCompatActivity;

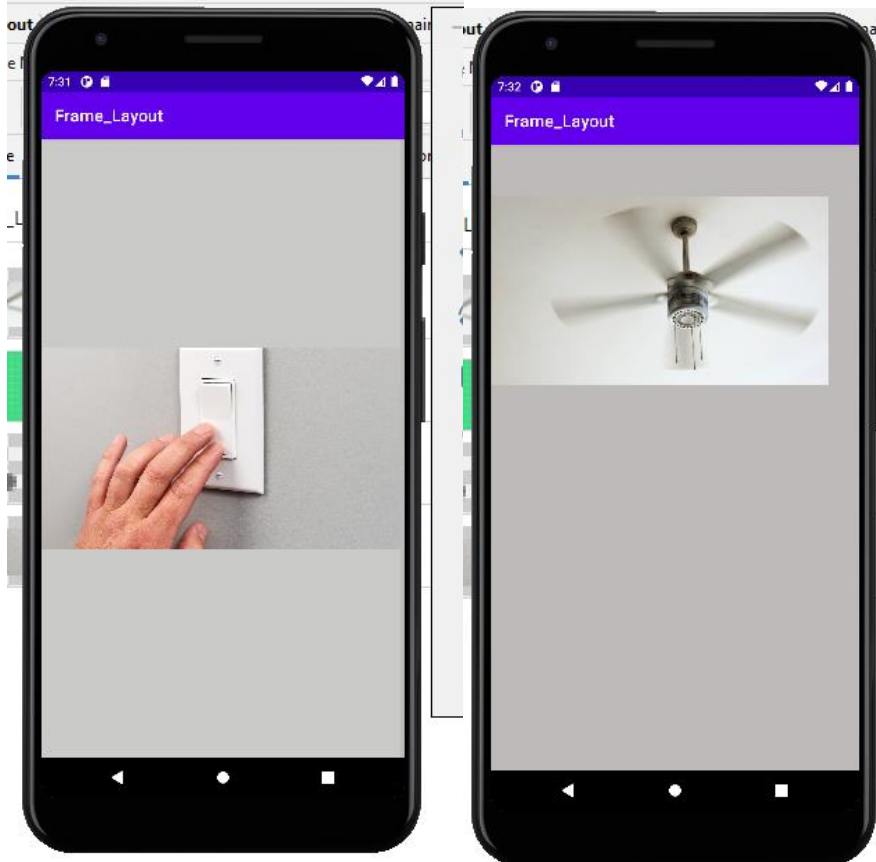
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;

public class MainActivity extends AppCompatActivity implements View.OnClickListener {
```

```
ImageView i1,i2;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    i1=(ImageView) findViewById(R.id.imageView1);
    i2=(ImageView) findViewById(R.id.imageView2);
    i1.setOnClickListener(this);
    i2.setOnClickListener(this);
}

@Override
public void onClick(View v) {
    if(v.getId()==R.id.imageView1)
    {
        i1.setVisibility(v.GONE);
        i2.setVisibility(v.VISIBLE);
    }
    else
    {
        i2.setVisibility(v.GONE);
        i1.setVisibility(v.VISIBLE);
    }
}
}
```

OUTPUT



RESULT: The program executed successfully and output is obtained