COURSE OUTCOME-2

<u>AIM</u>: Design a registration activity and store registration details in local memory of phone using Intents and SharedPreferences.

PROGRAM CODE

```
JAVA CODE
                   package com.example.admin.sharedpreference;
MainActivity.java
                   import android.support.v7.app.AppCompatActivity;
                   import android.os.Bundle;
                   import android.content.SharedPreferences;
                   import android.view.View;
                   import android.widget.Button;
                   import android.widget.EditText;
                   import android.widget.TextView;
                   public class MainActivity extends AppCompatActivity {
                      EditText edt1,edt2,edt3,edt4,edt5;
                      Button bt:
                      TextView t1,t2,t3,t4,t5,t6,t7,t8,t9,t10;
                      @Override
                      protected void onCreate(Bundle savedInstanceState) {
                        super.onCreate(savedInstanceState);
                        setContentView(R.layout.activity main);
                        edt1=(EditText) findViewById(R.id.editcheck);
                        edt2=(EditText) findViewById(R.id.editText);
                        edt3=(EditText) findViewById(R.id.editText2);
                        edt4=(EditText) findViewById(R.id.editText3);
                        edt5=(EditText) findViewById(R.id.editText4);
                        bt=(Button) findViewById(R.id.button);
                        t1=(TextView) findViewById(R.id.textView);
                        t2=(TextView) findViewById(R.id.textView2);
                        t3=(TextView) findViewById(R.id.textView3);
                        t4=(TextView) findViewById(R.id.textView4);
                        t5=(TextView) findViewById(R.id.textView5);
                        t6=(TextView) findViewById(R.id.textView6);
                        t7=(TextView) findViewById(R.id.textView7);
                        t8=(TextView) findViewById(R.id.textView8);
```

```
t9=(TextView) findViewById(R.id.textView9);
    t10=(TextView) findViewById(R.id.textView10);
    bt.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View v) {
          SharedPreferences
sharedpref=getSharedPreferences("pref",MODE PRIVATE);
          SharedPreferences.Editor editor=sharedpref.edit();
          editor.putString("key",edt1.getText().toString());
          editor.putString("key1",edt2.getText().toString());
          editor.putString("key2",edt3.getText().toString());
          editor.putString("key3",edt4.getText().toString());
          editor.putString("key4",edt5.getText().toString());
          editor.apply();
     });
    SharedPreferences
getsharedValue=getSharedPreferences("pref",MODE PRIVATE);
    String value=getsharedValue.getString("key","this is the default
value for pref");
    t6.setText(value);
    String value1=getsharedValue.getString("key1","this is the default
value for pref");
    t7.setText(value1);
    String value2=getsharedValue.getString("key2","this is the default
value for pref");
    t8.setText(value2);
    String value3=getsharedValue.getString("key3","this is the default
value for pref");
    t9.setText(value3);
    String value4=getsharedValue.getString("key4","this is the default
value for pref");
    t10.setText(value4);
```

```
tools:context=".MainActivity">
<EditText
  android:id="@+id/editcheck"
  android:layout width="148dp"
  android:layout height="43dp"
  android:layout_marginTop="8dp"
  android:layout marginBottom="8dp"
  android:ems="10"
  android:hint="Enter username"
  android:inputType="textPersonName"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.822"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.07"/>
<Button
  android:id="@+id/button"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginStart="158dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="159dp"
  android:layout marginBottom="8dp"
  android:text="Save"
  app:layout constraintBottom toBottomOf="parent"
  app:layout_constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="1.0"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.615"/>
<TextView
  android:id="@+id/textView6"
  android:layout width="151dp"
  android:layout height="20dp"
  android:layout marginStart="165dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="189dp"
  android:layout marginBottom="50dp"
  android:text="Do You Want to save this Username"
  app:layout constraintBottom toBottomOf="parent"
```

```
app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.504"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.773"/>
<TextView
  android:id="@+id/textView"
  android:layout width="115dp"
  android:layout height="33dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:text="Name"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.221"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.069" />
<TextView
  android:id="@+id/textView2"
  android:layout width="64dp"
  android:layout height="30dp"
  android:layout marginStart="8dp"
  android:layout_marginTop="8dp"
  android:layout_marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:text="Age"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout_constraintHorizontal bias="0.207"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.18"/>
<EditText
  android:id="@+id/editText"
  android:layout width="142dp"
  android:layout height="42dp"
  android:layout_marginStart="8dp"
  android:layout marginTop="8dp"
```

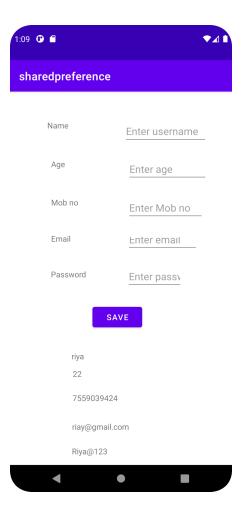
```
android:layout marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:ems="10"
  android:hint="Enter age"
  android:inputType="textPersonName"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.849"
  app:layout_constraintStart_toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.182"/>
<TextView
  android:id="@+id/textView3"
  android:layout width="71dp"
  android:layout height="28dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:text="Mob no"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.212"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.289" />
<EditText
  android:id="@+id/editText2"
  android:layout width="136dp"
  android:layout height="41dp"
  android:layout marginStart="8dp"
  android:layout_marginTop="8dp"
  android:layout_marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:ems="10"
  android:inputType="textPersonName"
  android:hint="Enter Mob no"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.827"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
```

```
app:layout constraintVertical bias="0.297"/>
<TextView
  android:id="@+id/textView4"
  android:layout width="66dp"
  android:layout height="25dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:text="Email"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.208"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.391"/>
<EditText
  android:id="@+id/editText3"
  android:layout width="126dp"
  android:layout height="37dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="8dp"
  android:ems="10"
  android:hint="Enter email"
  android:inputType="textPersonName"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout_constraintHorizontal bias="0.793"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.389" />
<TextView
  android:id="@+id/textView5"
  android:layout width="wrap content"
  android:layout_height="25dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:text="Password"
```

```
app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.205"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.493" />
<EditText
  android:id="@+id/editText4"
  android:layout width="99dp"
  android:layout height="39dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:ems="10"
  android:hint="Enter password"
  android:inputType="textPersonName"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.713"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent" />
<TextView
  android:id="@+id/textView7"
  android:layout width="149dp"
  android:layout height="21dp"
  android:layout marginStart="8dp"
  android:layout marginTop="8dp"
  android:layout_marginEnd="8dp"
  android:layout marginBottom="8dp"
  android:text="TextView"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.452"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.772"/>
<TextView
  android:id="@+id/textView8"
  android:layout width="172dp"
  android:layout height="21dp"
```

```
android:layout marginStart="8dp"
    android:layout marginTop="8dp"
    android:layout marginEnd="8dp"
    android:layout marginBottom="8dp"
    android:text="TextView"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="0.841"/>
  <TextView
    android:id="@+id/textView9"
    android:layout width="149dp"
    android:layout height="23dp"
    android:layout marginStart="8dp"
    android:layout marginTop="8dp"
    android:layout marginEnd="8dp"
    android:layout marginBottom="8dp"
    android:text="TextView"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout constraintHorizontal bias="0.447"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout_constraintVertical bias="0.925" />
  <TextView
    android:id="@+id/textView10"
    android:layout width="140dp"
    android:layout height="26dp"
    android:layout marginStart="8dp"
    android:layout marginTop="8dp"
    android:layout marginEnd="8dp"
    android:layout marginBottom="8dp"
    android:text="TextView"
    app:layout constraintBottom toBottomOf="parent"
    app:layout constraintEnd toEndOf="parent"
    app:layout_constraintHorizontal bias="0.429"
    app:layout constraintStart toStartOf="parent"
    app:layout constraintTop toTopOf="parent"
    app:layout constraintVertical bias="1.0"/>
</android.support.constraint.ConstraintLayout>
```

<u>OUTPUT</u>



<u>RESULT:</u> The above program is successfully executed and obtained the output.

<u>AIM</u>: Design a simple Calculator using GridLayout and Cascaded LinearLayout.

PROGRAM CODE

```
JAVA CODE
                     package com.example.gridcalculator;
                     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) findViewBvId(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) {
```

```
XML CODE
                     <?xml version="1.0" encoding="utf-8"?>
                    <androidx.constraintlayout.widget.ConstraintLayout</p>
                      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"
```

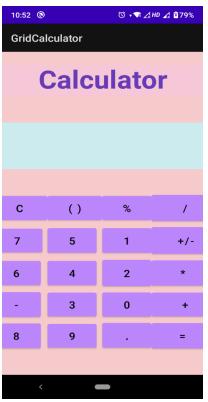
```
android:layout height="60dp"
  android:layout row="2"
  android:layout column="0"
  android:text="6"
  android:textSize="20sp"
  app:layout column="2"
  app:layout row="2"/>
<Button
  android:id="@+id/button17"
  android:layout width="wrap content"
  android:layout_height="61dp"
  android:layout 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"
```

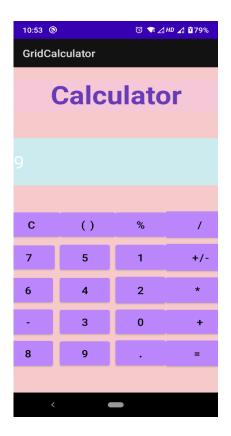
```
app:layout row="3" />
  <Button
    android:id="@+id/button21"
    android:layout width="111dp"
    android:layout height="62dp"
    android:layout row="4"
    android:layout column="3"
    android:text="="
    android:textSize="20sp"
    app:layout column="3"
    app:layout row="4" />
</android.widget.GridLayout>
<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"
```

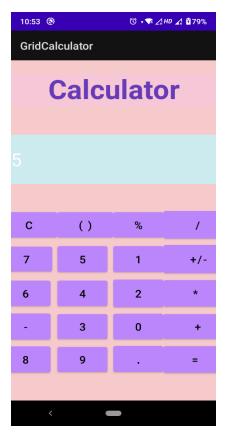
app:layout_constraintBottom_toTopOf="@+id/edt1" app:layout_constraintEnd_toEndOf="parent" app:layout_constraintStart_toStartOf="parent" app:layout_constraintTop_toTopOf="parent" android:layout_marginLeft="1dp" />

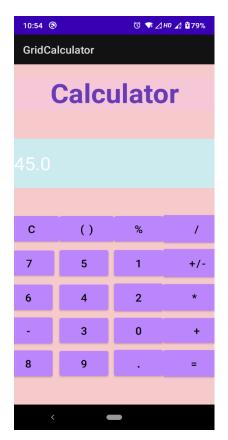
</androidx.constraintlayout.widget.ConstraintLayout>

OUTPUT









RESULT: The above program is successfully executed and obtained the output.

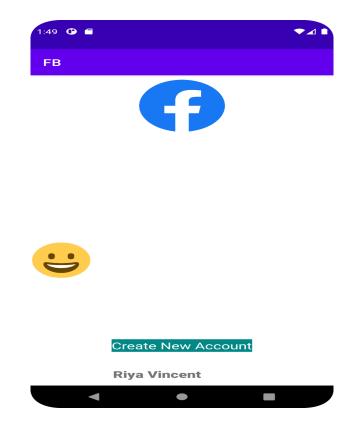
<u>AIM:</u> Create a Facebook page using RelativeLayout; set properties using .xml file.

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"
                  tools:context=".MainActivity">
                  <ImageView
                     android:id="@+id/imageView3"
                     android:layout width="309dp"
                     android:layout height="130dp"
                     android:layout centerHorizontal="true"
                     app:srcCompat="@drawable/fb logo" />
                  <ImageView
                     android:id="@+id/imageView7"
                     android:layout width="110dp"
                     android:layout height="wrap content"
                     android:layout below="@+id/imageView3"
                     android:layout alignParentLeft="false"
                     android:layout marginTop="23dp"
                     app:srcCompat="@drawable/flower" />
                  <TextView
                     android:id="@+id/editText1"
                     android:layout width="wrap content"
                     android:layout height="wrap content"
                     android:layout alignLeft="@id/imageView7"
                     android:layout alignBottom="@id/imageView7"
                     android:layout alignParentBottom="false"
                     android:layout marginLeft="134dp"
                     android:layout marginBottom="11dp"
                     android:layout toRightOf="@id/imageView7"
                     android:ems="10"
```

```
android:fontFamily="sans-serif-black"
    android:inputType="textPersonName"
    android:text="Shaina"
    android:textSize="20dp" />
  <CheckBox
    android:id="@+id/check1"
    android:layout width="217dp"
    android:layout height="26dp"
    android:layout below="@id/imageView7"
    android:layout_marginTop="63dp"
    android:layout marginBottom="56dp"
    android:text="Log in to another account" />
  <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" />
  <EditText
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout alignParentBottom="true"
    android:layout centerInParent="true"
    android:layout centerVertical="true"
    android:layout marginBottom="72dp"
    android:background="@color/teal 700"
    android:text="Create new Facebook account"
    android:textColor="@color/white"
    android:textSize="20dp" />
</RelativeLayout>
```

OUTPUT



RESULT: The above program is successfully executed and obtained the output.

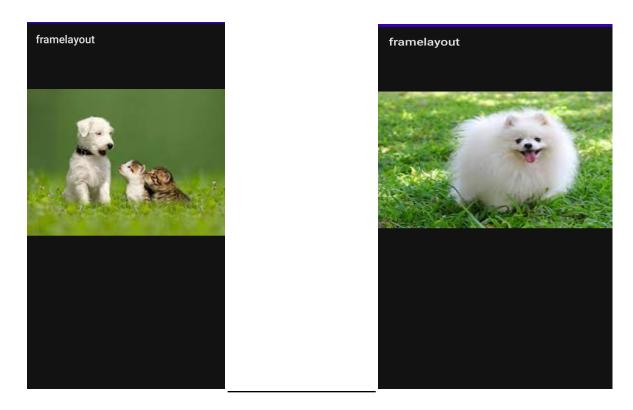
<u>AIM:</u> Develop an application that toggles image using FrameLayout.

PROGRAM CODE:

```
JAVA CODE
                  package com.example.framelayout;
                  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);
```

```
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"
                    tools:context=".MainActivity">
                    <ImageView
                       android:id="@+id/imageView1"
                       android:layout width="400dp"
                       android:layout height="392dp"
                       app:srcCompat="@drawable/puppyy"
                       android:layout gravity="left|top"/>
                    <ImageView
                       android:id="@+id/imageView2"
                       android:layout width="396dp"
                       android:layout height="400dp"
                       app:srcCompat="@drawable/puppy"
                       android:layout gravity="left|top"
                       android:visibility="gone"/>
                    < Frame Layout
                       android:layout width="match parent"
                       android:layout height="match parent">
                    </FrameLayout>
                  </FrameLayout>
```

OUTPUT



<u>RESULT:</u> The above program is successfully executed and obtained the output.