COURSE OUTCOME 2

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

```
MainActivity.java
                    package com.example.co2 q1;
                    import androidx.appcompat.app.AppCompatActivity;
                    import android.content.Intent;
                    import android.content.SharedPreferences;
                    import android.os.Bundle;
                    import android.view.View;
                    import android.widget.EditText;
                    public class MainActivity extends AppCompatActivity {
                       String Name;
                       String Address;
                       String Phone;
                       String Email:
                       @Override
                       protected void onCreate(Bundle savedInstanceState) {
                         super.onCreate(savedInstanceState):
                         setContentView(R.layout.activity main);
                       public void onSubmit(View view){
                         EditText name = (EditText) findViewById(R.id.name);
                         EditText add = (EditText) findViewById(R.id.add);
                         EditText phone = (EditText) findViewById(R.id.phone);
                         EditText email = (EditText) findViewById(R.id.email);
                         Intent i = new
                    Intent(getApplicationContext(),MainActivity2.class);
                         Name= name.getText().toString();
                         Address = add.getText().toString();
                         Phone = phone.getText().toString();
                         Email = email.getText().toString();
                         SharedPreferences sharedPreferences =
                    getSharedPreferences("MySharedPref",MODE PRIVATE);
                         SharedPreferences.Editor myEdit =
                    sharedPreferences.edit();
                         myEdit.putString("name", name.getText().toString());
                         myEdit.putString("add", add.getText().toString());
                         myEdit.putString("phone", phone.getText().toString());
```

```
myEdit.putString("email", email.getText().toString());
                         myEdit.apply();
                         i.putExtra("Name",Name);
                         i.putExtra("Address",Address);
                         i.putExtra("Phone",Phone);
                         i.putExtra("Email",Email);
                         startActivity(i);
                      }
                      @Override
                      protected void onResume() {
                         super.onResume();
                         EditText name = (EditText) findViewById(R.id.name);
                         EditText add = (EditText) findViewById(R.id.add);
                         EditText phone = (EditText) findViewById(R.id.phone);
                         EditText email = (EditText) findViewById(R.id.email);
                         SharedPreferences sh =
                    getSharedPreferences("MySharedPref", MODE PRIVATE);
                         name.setText(sh.getString("name",""));
                         add.setText(sh.getString("add",""));
                         phone.setText(sh.getString("phone",""));
                         email.setText(sh.getString("email",""));
                      }
                    }
                    <?xml version="1.0" encoding="utf-8"?>
activity_main.xml
                    <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="#FFEB3B"
                      tools:context=".MainActivity">
                      <EditText
                         android:id="@+id/add"
                         android:layout width="wrap content"
                         android:layout height="wrap content"
                         android:ems="10"
                         android:hint="Address"
                         android:inputType="textPostalAddress"
                         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="0.412" />
```

```
<EditText
  android:id="@+id/email"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:ems="10"
  android:hint="Email"
  android:inputType="textWebEmailAddress"
  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="0.661" />
<EditText
  android:id="@+id/phone"
  android:layout width="wrap_content"
  android:layout height="wrap content"
  android:ems="10"
  android:hint="Phone"
  android:inputType="phone"
  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="0.529" />
<TextView
  android:id="@+id/t1"
  android:layout width="132dp"
  android:layout height="30dp"
  android:text="Name"
  android:textAlignment="center"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.093"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.313" />
<TextView
  android:id="@+id/t4"
  android:layout width="132dp"
  android:layout height="30dp"
  android:text="Email"
  android:textAlignment="center"
  android:textStyle="bold"
```

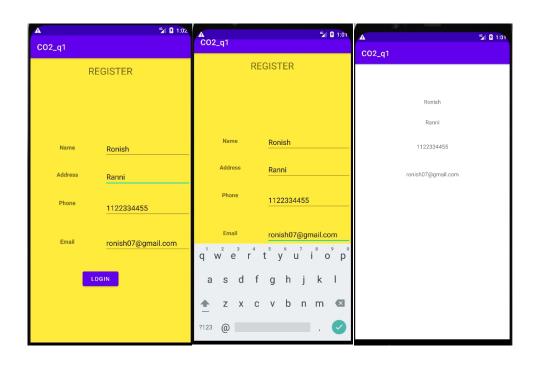
```
app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.093"
  app:layout constraintStart toStartOf="parent"
  app:layout_constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.659" />
<TextView
  android:id="@+id/t2"
  android:layout width="132dp"
  android:layout height="30dp"
  android:text="Address"
  android:textAlianment="center"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.093"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.413" />
<TextView
  android:layout width="230dp"
  android:lavout height="37dp"
  android:text="REGISTER"
  android:textAlignment="center"
  android:textSize="24sp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintHorizontal bias="0.497"
  app:layout constraintLeft toLeftOf="parent"
  app:layout constraintRight toRightOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.023" />
<TextView
  android:id="@+id/t3"
  android:layout width="132dp"
  android:layout height="30dp"
  android:text="Phone"
  android:textAlignment="center"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.093"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.517" />
<EditText
```

```
android:id="@+id/name"
                        android:layout width="wrap content"
                        android:layout height="wrap content"
                        android:ems="10"
                        android:hint="Name"
                        android:inputType="textPersonName"
                        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="0.307" />
                      <Button
                        android:id="@+id/button"
                        android:layout width="wrap content"
                        android:layout height="wrap content"
                        android:layout marginStart="144dp"
                        android:layout marginTop="51dp"
                        android:layout marginEnd="177dp"
                        android:layout marginBottom="133dp"
                        android:onClick="onSubmit"
                        android:text="Login"
                        app:layout constraintBottom toBottomOf="parent"
                        app:layout constraintEnd toEndOf="parent"
                        app:layout constraintHorizontal bias="1.0"
                        app:layout constraintStart toStartOf="parent"
                        app:layout constraintTop toBottomOf="@+id/email"
                        app:layout constraintVertical bias="1.0" />
                   </androidx.constraintlayout.widget.ConstraintLayout>
MainActivity2.java
                   package com.example.co2 q1;
                   import androidx.appcompat.app.AppCompatActivity;
                   import android.os.Bundle;
                   import android.widget.TextView;
                   public class MainActivity2 extends AppCompatActivity {
                      @Override
                      protected void onCreate(Bundle savedInstanceState) {
                        super.onCreate(savedInstanceState);
                        setContentView(R.layout.activity main2);
                        TextView t1 = (TextView) findViewById(R.id.name2);
                        TextView t2 = (TextView) findViewByld(R.id.add2);
                        TextView t3 = (TextView) findViewByld(R.id.phone2);
                        TextView t4 = (TextView) findViewByld(R.id.email2);
```

```
Bundle extras = getIntent().getExtras();
                        String name2 = extras.getString("Name");
                        String add2 = extras.getString("Address");
                        String phone2 = extras.getString("Phone");
                        String email2 = extras.getString("Email");
                        t1.setText(name2);
                        t2.setText(add2);
                        t3.setText(phone2);
                        t4.setText(email2);
                      }
                    <?xml version="1.0" encoding="utf-8"?>
activity main2.xml
                    <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=".MainActivitv2">
                      <TextView
                        android:id="@+id/name2"
                        android:layout width="239dp"
                        android:layout height="26dp"
                        android:text="TextView"
                        android:textAlignment="center"
                        app:layout constraintBottom toBottomOf="parent"
                        app:layout constraintEnd toEndOf="parent"
                        app:layout constraintHorizontal bias="0.498"
                        app:layout_constraintStart toStartOf="parent"
                        app:layout constraintTop toTopOf="parent"
                        app:layout constraintVertical bias="0.128"/>
                      <TextView
                        android:id="@+id/email2"
                        android:layout width="239dp"
                        android:layout height="26dp"
                        android:text="TextView"
                        android:textAlignment="center"
                        app:layout constraintBottom toBottomOf="parent"
                        app:layout constraintEnd toEndOf="parent"
                        app:layout constraintStart toStartOf="parent"
                        app:layout constraintTop toTopOf="parent"
                        app:layout constraintVertical bias="0.401" />
                      <TextView
                        android:id="@+id/add2"
                        android:layout width="239dp"
```

android:layout height="26dp" android:text="TextView" android:textAlignment="center" app:layout constraintBottom toBottomOf="parent" app:layout constraintEnd toEndOf="parent" app:layout constraintStart toStartOf="parent" app:layout constraintTop toTopOf="parent" app:layout constraintVertical bias="0.205" /> <TextView android:id="@+id/phone2" android:layout width="239dp" android:layout height="26dp" android:text="TextView" android:textAlignment="center" app:layout constraintBottom toBottomOf="parent" app:layout constraintEnd toEndOf="parent" app:layout constraintStart toStartOf="parent" app:layout constraintTop toTopOf="parent" app:layout constraintVertical bias="0.297" /> </androidx.constraintlayout.widget.ConstraintLayout>

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



**AIM**: Design a simple Calculator using GridLayout and Cascaded LinearLayout

```
MainActivity.java
                   //Design a simple Calculator using GridLayout and Cascaded
                   LinearLayout
                   package com.example.co2 q2;
                   import androidx.appcompat.app.AppCompatActivity;
                   import android.os.Bundle;
                   import android.view.View;
                   import android.widget.TextView;
                   public class MainActivity extends AppCompatActivity {
                     float mValueOne. mValueTwo:
                     boolean cAddition, mSubtract, cMultiplication,
                   cDivision,cperc;
                     TextView op,rss;
                     @Override
                     protected void onCreate(Bundle savedInstanceState) {
                        super.onCreate(savedInstanceState);
                        setContentView(R.layout.activity main);
                        op = findViewById(R.id.opp);
                       rss = findViewById(R.id.rs);
                     public void zero(View view){
                        op.setText(op.getText() + "0");
                     }
                     public void one(View view){
                        op.setText(op.getText() + "1");
                     public void two(View view){
                        op.setText(op.getText() + "2");
                     public void three(View view){
                        op.setText(op.getText() + "3");
                     public void four(View view){
                        op.setText(op.getText() + "4");
```

```
public void five(View view){
  op.setText(op.getText() + "5");
public void six(View view){
  op.setText(op.getText() + "6");
public void seven(View view){
  op.setText(op.getText() + "7");
}
public void eight(View view) {
  op.setText(op.getText() + "8");
public void nine(View view){
  op.setText(op.getText() + "9");
public void add(View view){
  if (op == null) {
     op.setText("");
  } else {
     mValueOne = Float.parseFloat(op.getText() + "");
     cAddition = true;
     op.setText(null);
  }
}
public void sub(View view){
  if (op == null) {
     op.setText("");
  } else {
     mValueOne = Float.parseFloat(op.getText() + "");
     mSubtract = true;
     op.setText(null);
  }
public void mul(View view){
  if (op == null) {
     op.setText("");
  } else {
     mValueOne = Float.parseFloat(op.getText() + "");
     cMultiplication = true;
     op.setText(null);
  }
public void div(View view){
  if (op == null) {
     op.setText("");
  } else {
```

```
mValueOne = Float.parseFloat(op.getText() + "");
       cDivision = true:
       op.setText(null);
    }
  }
  public void per(View view){
    if (op == null) {
       op.setText("");
     } else {
       mValueOne = Float.parseFloat(op.getText() + "");
       cperc = true;
       op.setText(null);
  public void equal(View view){
    if (op == null) {
       op.setText("");
     } else {
       mValueTwo = Float.parseFloat(op.getText() + "");
         if (cAddition == true) {
            op.setText(Float.toString(mValueOne)+"+
"+Float.toString(mValueTwo)+" = "+Float.toString(mValueOne
+ mValueTwo) + "");
         else if (mSubtract == true) {
            op.setText(Float.toString(mValueOne)+" -
"+Float.toString(mValueTwo)+" = "+Float.toString(mValueOne
- mValueTwo) + "");
         else if (cMultiplication == true) {
            op.setText(Float.toString(mValueOne)+" *
"+Float.toString(mValueTwo)+" = "+Float.toString(mValueOne
* mValueTwo )+ "");
         else if (cDivision == true) {
            op.setText(Float.toString(mValueOne)+"/
"+Float.toString(mValueTwo)+" = "+Float.toString(mValueOne
/ mValueTwo )+ "");
         else if (cperc == true) {
            op.setText(Float.toString(mValueOne)+" %
"+Float.toString(mValueTwo)+" = "+Float.toString(mValueOne
/ mValueTwo*100)+"%");
```

```
cAddition = false;
                            mSubtract = false:
                            cMultiplication = false;
                            cDivision = false;
                            cperc = false;
                            mValueOne = 0;
                            mValueTwo=0;
                       }
                     public void clear(View view){
                       cAddition = false;
                       mSubtract = false;
                       cMultiplication = false;
                       cDivision = false;
                       cperc = false:
                       mValueOne = 0;
                       mValueTwo=0;
                       op.setText(null);
                       rss.setText(null);
                     }
                   }
                   <?xml version="1.0" encoding="utf-8"?>
activity main.xml
                   <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="#D3C54D"
                     android:textAlignment="center"
                     tools:context=".MainActivity">
                     <TextView
                       android:id="@+id/rs"
                       android:layout width="194dp"
                       android:layout height="31dp"
                       android:textAlignment="center"
                       android:textAllCaps="true"
                       android:textSize="24sp"
                       android:textStyle="bold"
                       app:layout constraintBottom toBottomOf="parent"
                       app:layout constraintHorizontal bias="0.847"
                       app:layout constraintLeft toLeftOf="parent"
                       app:layout constraintRight toRightOf="parent"
                       app:layout constraintTop toTopOf="parent"
                       app:layout constraintVertical bias="0.098" />
```

```
<TextView
  android:id="@+id/textView3"
  android:layout width="281dp"
  android:layout height="43dp"
  android:text="Calculator"
  android:textAlignment="center"
  android:textAllCaps="true"
  android:textSize="34sp"
  android:textStyle="bold"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintHorizontal bias="0.562"
  app:layout constraintLeft toLeftOf="parent"
  app:layout constraintRight toRightOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.022" />
<TextView
  android:id="@+id/opp"
  android:layout width="320dp"
  android:layout height="32dp"
  android:textAlignment="textEnd"
  android:textAllCaps="true"
  android:textSize="20sp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintHorizontal bias="0.637"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toTopOf="parent"
  app:layout constraintVertical bias="0.175" />
<androidx.gridlayout.widget.GridLayout</p>
  android:layout width="372dp"
  android:layout height="510dp"
  android:layout marginStart="2dp"
  android:layout marginTop="16dp"
  android:layout marginEnd="2dp"
  android:layout marginBottom="17dp"
  app:layout constraintBottom toBottomOf="parent"
  app:layout constraintEnd toEndOf="parent"
  app:layout constraintStart toStartOf="parent"
  app:layout constraintTop toBottomOf="@+id/opp">
  <Button
    android:id="@+id/ac"
    android:layout width="126dp"
    android:layout height="62dp"
    android:onClick="clear"
    android:text="AC"
```

```
app:layout column="0"
  app:layout row="5"
  tools:text="AC" />
<Button
  android:id="@+id/clear"
  android:layout width="126dp"
  android:layout height="62dp"
  android:onClick="clear"
  android:text="C"
  app:layout column="2"
  app:layout row="5"
  tools:text="C"/>
<Button
  android:id="@+id/n9"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="nine"
  android:text="9"
  app:layout column="0"
  app:layout row="0" />
<Button
  android:id="@+id/equal"
  android:layout width="126dp"
  android:layout height="62dp"
  android:onClick="equal"
  android:text="="
  app:layout column="1"
  app:layout row="5"/>
<Button
  android:id="@+id/per"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="per"
  android:text="%"
  app:layout column="2"
  app:layout row="4" />
<Button
  android:id="@+id/div"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="div"
  android:text="/"
  app:layout column="1"
  app:layout row="4"/>
```

```
<Button
  android:id="@+id/sub"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="sub"
  android:text="-"
  app:layout column="2"
  app:layout row="3" />
<Button
  android:id="@+id/mul"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="mul"
  android:text="*"
  app:layout column="0"
  app:layout row="4" />
<Button
  android:id="@+id/sum"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="add"
  android:text="+"
  app:layout column="1"
  app:layout row="3" />
<Button
  android:id="@+id/n0"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="zero"
  android:text="0"
  app:layout column="0"
  app:layout row="3"/>
<Button
  android:id="@+id/n1"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="one"
  android:text="1"
  app:layout column="2"
  app:layout row="2"/>
<Button
  android:id="@+id/n2"
  android:layout width="130dp"
```

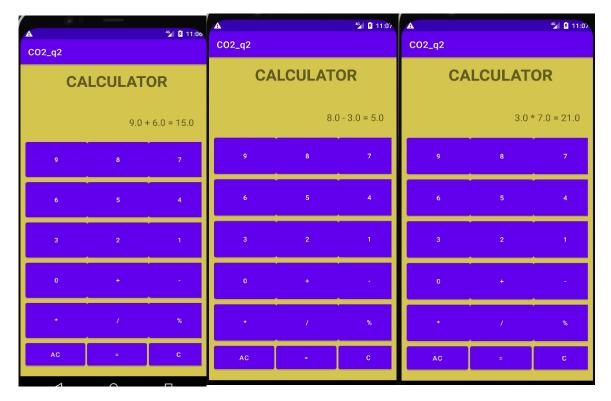
```
android:layout height="90dp"
  android:onClick="two"
  android:text="2"
  app:layout column="1"
  app:layout row="2" />
<Button
  android:id="@+id/n3"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="three"
  android:text="3"
  app:layout column="0"
  app:layout row="2" />
<Button
  android:id="@+id/n4"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="four"
  android:text="4"
  app:layout column="2"
  app:layout row="1"/>
<Button
  android:id="@+id/n5"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="five"
  android:text="5"
  app:layout column="1"
  app:layout row="1" />
<Button
  android:id="@+id/n6"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="six"
  android:text="6"
  app:layout column="0"
  app:layout row="1" />
<Button
  android:id="@+id/n7"
  android:layout width="130dp"
  android:layout height="90dp"
  android:onClick="seven"
  android:text="7"
  app:layout column="2"
```

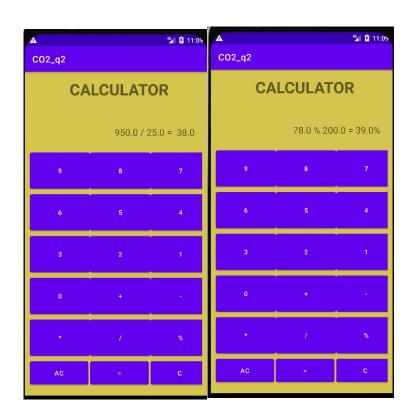
```
app:layout_row="0" />

<Button
    android:id="@+id/n8"
    android:layout_width="130dp"
    android:layout_height="90dp"
    android:onClick="eight"
    android:text="8"
    app:layout_column="1"
    app:layout_row="0" />
    </androidx.gridlayout.widget.GridLayout>

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

# **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

```
MainActivity.java
                  /package com.example.co2 q3;
                  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);
                    }
                  }
                  <?xml version="1.0" encoding="utf-8"?>
activity main.xml
                  <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:id="@+id/c1"
                    android:layout width="match_parent"
                    android:layout height="match parent"
                    tools:context=".MainActivity">
                     <CheckBox
                       android:id="@+id/checkBox2"
                       android:layout width="220dp"
                       android:layout height="61dp"
                       android:lavout_alignBottom="@id/imageView2"
                       android:layout marginBottom="-174dp"
                       android:text="Find Your Account" />
                     <ImageView
                       android:id="@+id/imageView"
                       android:layout width="match parent"
                       android:layout height="193dp"
                       app:srcCompat="@drawable/fb" />
```

```
<ImageView
    android:id="@+id/imageView2"
    android:layout width="195dp"
    android:layout height="151dp"
    android:layout alignBottom="@id/imageView"
    android:layout marginBottom="-195dp"
    app:srcCompat="@drawable/dp" />
  <CheckBox
    android:id="@+id/checkBox"
    android:layout width="220dp"
    android:layout height="61dp"
    android:layout alignBottom="@id/imageView2"
    android:layout marginBottom="-112dp"
    android:text="Login to Another Account" />
  <Button
    android:id="@+id/button"
    android:layout width="245dp"
    android:layout_height="wrap_content"
    android:layout alignBottom="@id/imageView"
    android:layout centerHorizontal="true"
    android:layout marginBottom="-479dp"
    android:text="Create a new Account" />
  <TextView
    android:id="@+id/textView4"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout_alignRight="@id/imageView2"
    android:layout_alignBottom="@id/imageView"
    android:layout marginRight="-91dp"
    android:layout marginBottom="-196dp"
    android:text="Abhilash John" />
</RelativeLayout>
```

 $\underline{\textbf{RESULT:}}$  The above program is successfully executed and obtained the output



**AIM**: Develop an application that toggles image using FrameLayout

```
//Develop an application that toggles image using FrameLayout.
MainActivity.java
                   package com.example.co2 q4;
                   import androidx.appcompat.app.AppCompatActivity;
                   import android.os.Bundle;
                   import android.view.View;
                   import android.widget.ImageView;
                   public class MainActivity extends AppCompatActivity {
                     @Override
                     protected void onCreate(Bundle savedInstanceState) {
                       super.onCreate(savedInstanceState);
                       setContentView(R.layout.activity main);
                       final ImageView first image =
                   (ImageView)this.findViewById(R.id.f1);
                       final ImageView second image =
                   (ImageView)this.findViewById(R.id.f2);
                       first image.setOnClickListener(new View.OnClickListener(){
                          public void onClick(View view) {
                            first image.setVisibility(View.VISIBLE);
                            view.setVisibility(View.GONE);
                        });
                       second image.setOnClickListener(new
                   View.OnClickListener(){
                          public void onClick(View view) {
                            second image.setVisibility(View.VISIBLE);
                            view.setVisibility(View.GONE);
                       });
                     }
                   <?xml version="1.0" encoding="utf-8"?>
activity main.xml
                   <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">
                     <FrameLayout</pre>
```

```
android:layout width="409dp"
    android:layout height="354dp"
    tools:layout editor absoluteX="1dp"
    tools:layout editor absoluteY="131dp">
    <ImageView
      android:id="@+id/f1"
      android:layout width="match parent"
      android:layout height="match parent"
      app:srcCompat="@drawable/f1" />
    <ImageView
      android:id="@+id/f2"
      android:layout_width="match_parent"
      android:layout height="match parent"
      app:srcCompat="@drawable/f4" />
  </FrameLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

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

