SREE NARAYANA GURUKULAM COLLEGE OF ENGINEERING
KADAYIRUPPU, KOLENCHERY 682311

LABORATORY RECORD
YEAR :2022 TO 2023

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SEMESTER: 03

ROLL NO: 28

BRANCH: COMPUTER APPLICATIONS

Certified that this is a Bonafide Record of Practical work done in partial fulfillment of the requirements for the award of the Degree in Master of Computer Applications of Sree Narayana Gurukulam College of Engineering.

Kadayiruppu

Date:

Head of the Department   Course Instructor

Submitted for University Practical Examination

Reg. No: SNG21MCA-2030 **on-----------------**

External Examiner   Internal Examiner

INDEX PAGE

PROGRAM NO:05
DATE: 25/09/22

INTENTS AND SHARED PREFERENCES

AIM

Design a registration activity and store registration details in local memory of phone using Intents and Sharedpreferences

XML CODE

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

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

        <EditText
            android:id="@+id/ET"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:ems="10"
            android:inputType="textPersonName" />

        <EditText
            android:id="@+id/ET1"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:ems="10"
            android:inputType="textPersonName" />

        <Button
            android:id="@+id/BTN"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:onClick="onClick"
            android:text="Button" />
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
```

JAVA CODE

```java
package com.example.sharedprefer;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    EditText E1,E2;
    Button B1;
    SharedPreferences sp;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        E1=findViewById(R.id.ET);
        E2=findViewById(R.id.ET1);
        B1=findViewById(R.id.BTN);
        sp=getSharedPreferences("Login",MODE_PRIVATE);

    }

    public void onClick(View view) {
        SharedPreferences.Editor ed=sp.edit();
        ed.putString("username",E1.getText().toString());
        ed.putString("password",E2.getText().toString());
        ed.commit();
        Intent i=new Intent(MainActivity.this,MainActivity2.class);
            startActivity(i);

    }
}
```

XML CODE 2

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

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

        <TextView
            android:id="@+id/T1"
            android:layout_width="404dp"
            android:layout_height="49dp" />

        <TextView
            android:id="@+id/T2"
            android:layout_width="match_parent"
```

```xml
                    android:layout_height="wrap_content" />
        </LinearLayout>

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

JAVA CODE 2

```java
package com.example.sharedprefer;

import androidx.appcompat.app.AppCompatActivity;

import android.content.SharedPreferences;
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    TextView t1,t2;
    SharedPreferences sp;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        t1=findViewById(R.id.T1);
        t2=findViewById(R.id.T2);
        sp=getSharedPreferences("Login",MODE_PRIVATE);
        String E1=sp.getString("username","ABC");
        String E2=sp.getString("password","123");
        t1.setText(E1);
        t2.setText(E2);
    }
}
```
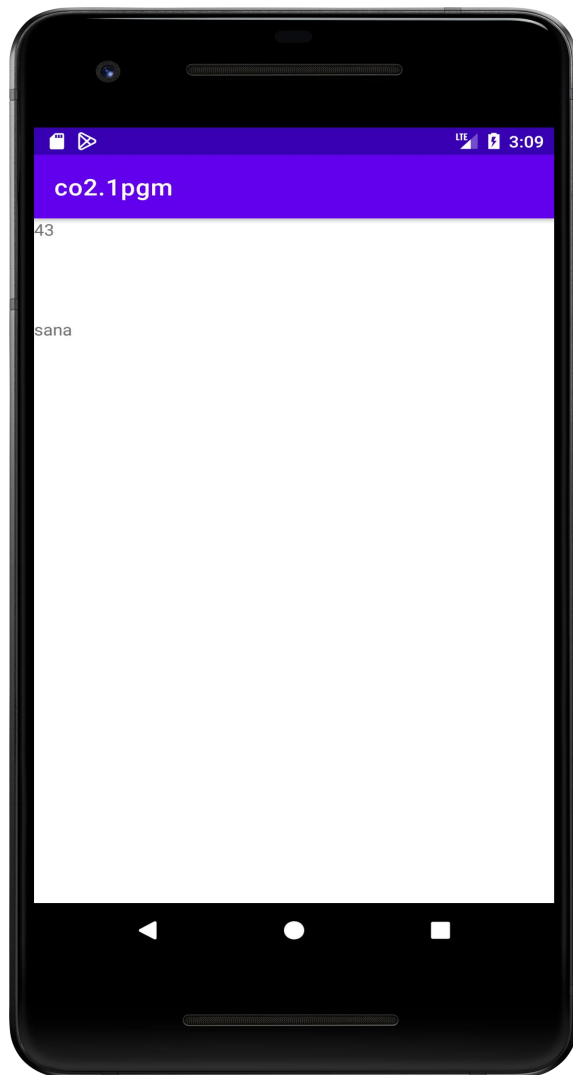
PROGRAM NO:06

DATE: 30/09/22

GRID CALCULATOR

AIM

Design a simple Calculator using GridLayout and Cascaded LinearLayout

XML CODE

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

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_marginTop="5dp"
        android:layout_height="40dp"
        android:background="#16B7CA"
        android:gravity="center"
        android:textColor="#0E0E0D"
        android:text="CALCULATOR" />

    <EditText
        android:id="@+id/display"
        android:layout_marginTop="30dp"
        android:layout_width="390dp"
        android:layout_gravity="center"
        android:layout_height="80dp"
        android:gravity="center"
        android:hint="Result"
        android:inputType="textPersonName"
```

```xml
        />

    <androidx.gridlayout.widget.GridLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="30dp"
        android:layout_gravity="center">

        <Button
            android:id="@+id/b7"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:backgroundTint="#1E6E77"
            android:text="7"
            app:layout_column="0"
            app:layout_row="0" />

        <Button
            android:id="@+id/b8"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="8"
            app:layout_column="1"
            app:layout_row="0" />

        <Button
            android:id="@+id/b9"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="9"
            app:layout_column="2"
            app:layout_row="0" />

        <Button
            android:id="@+id/div"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="/"
            app:layout_column="3"
            app:layout_row="0" />

        <Button
            android:id="@+id/b4"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:backgroundTint="#1E6E77"
            android:text="4"
            app:layout_column="0"
            app:layout_row="1" />

        <Button
            android:id="@+id/b5"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
```

```xml
            android:text="5"
            app:layout_column="1"
            app:layout_row="1" />

    <Button
        android:id="@+id/b6"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="6"
        app:layout_column="2"
        app:layout_row="1" />

    <Button
        android:id="@+id/mul"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="x"
        app:layout_column="3"
        app:layout_row="1" />

    <Button
        android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:backgroundTint="#1E6E77"
        android:text="1"
        app:layout_column="0"
        app:layout_row="2" />

    <Button
        android:id="@+id/b2"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="2"
        app:layout_column="1"
        app:layout_row="2" />

    <Button
        android:id="@+id/b3"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="3"
        app:layout_column="2"
        app:layout_row="2" />

    <Button
        android:id="@+id/sub"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="-"
        app:layout_column="3"
        app:layout_row="2" />
```

```xml
        <Button
            android:id="@+id/clr"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:backgroundTint="#1E6E77"
            android:text="clr"
            app:layout_column="0"
            app:layout_row="3" />

        <Button
            android:id="@+id/b0"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="0"
            app:layout_column="1"
            app:layout_row="3" />

        <Button
            android:id="@+id/equal"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="="
            app:layout_column="2"
            app:layout_row="3" />

        <Button
            android:id="@+id/add"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="+"
            app:layout_column="3"
            app:layout_row="3" />
    </androidx.gridlayout.widget.GridLayout>


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

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_marginTop="5dp"
        android:layout_height="40dp"
        android:background="#16B7CA"
        android:gravity="center"
        android:textColor="#0E0E0D"
        android:text="CALCULATOR" />
```

```xml
<EditText
    android:id="@+id/display"
    android:layout_marginTop="30dp"
    android:layout_width="390dp"
    android:layout_gravity="center"
    android:layout_height="80dp"
    android:gravity="center"
    android:hint="Result"
    android:inputType="textPersonName"
    />

<androidx.gridlayout.widget.GridLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="30dp"
    android:layout_gravity="center">

    <Button
        android:id="@+id/b7"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:backgroundTint="#1E6E77"
        android:text="7"
        app:layout_column="0"
        app:layout_row="0" />

    <Button
        android:id="@+id/b8"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="8"
        app:layout_column="1"
        app:layout_row="0" />

    <Button
        android:id="@+id/b9"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="9"
        app:layout_column="2"
        app:layout_row="0" />

    <Button
        android:id="@+id/div"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:layout_marginLeft="10dp"
        android:backgroundTint="#1E6E77"
        android:text="/"
        app:layout_column="3"
        app:layout_row="0" />

    <Button
        android:id="@+id/b4"
        android:layout_width="wrap_content"
        android:layout_height="54dp"
        android:backgroundTint="#1E6E77"
```

```xml
            android:text="4"
            app:layout_column="0"
            app:layout_row="1" />

        <Button
            android:id="@+id/b5"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="5"
            app:layout_column="1"
            app:layout_row="1" />

        <Button
            android:id="@+id/b6"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="6"
            app:layout_column="2"
            app:layout_row="1" />

        <Button
            android:id="@+id/mul"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="x"
            app:layout_column="3"
            app:layout_row="1" />

        <Button
            android:id="@+id/b1"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:backgroundTint="#1E6E77"
            android:text="1"
            app:layout_column="0"
            app:layout_row="2" />

        <Button
            android:id="@+id/b2"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="2"
            app:layout_column="1"
            app:layout_row="2" />

        <Button
            android:id="@+id/b3"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="3"
            app:layout_column="2"
            app:layout_row="2" />
```

```xml
        <Button
            android:id="@+id/sub"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="-"
            app:layout_column="3"
            app:layout_row="2" />

        <Button
            android:id="@+id/clr"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:backgroundTint="#1E6E77"
            android:text="clr"
            app:layout_column="0"
            app:layout_row="3" />

        <Button
            android:id="@+id/b0"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="0"
            app:layout_column="1"
            app:layout_row="3" />

        <Button
            android:id="@+id/equal"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="="
            app:layout_column="2"
            app:layout_row="3" />

        <Button
            android:id="@+id/add"
            android:layout_width="wrap_content"
            android:layout_height="54dp"
            android:layout_marginLeft="10dp"
            android:backgroundTint="#1E6E77"
            android:text="+"
            app:layout_column="3"
            app:layout_row="3" />
    </androidx.gridlayout.widget.GridLayout>


</LinearLayout>
```

```java
package com.example.grid;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    EditText number;
    double num1 = 0;
    double num2 = 0;
    String op = "";
    Button b1, b2, b3, b4, b5, b6, b7, b8, b9, b0, sum, sub, mul, div,
equal, clear;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        number = findViewById(R.id.display);
        b0 = findViewById(R.id.b0);
        b1 = findViewById(R.id.b1);
        b2 = findViewById(R.id.b2);
        b3 = findViewById(R.id.b3);
        b4 = findViewById(R.id.b4);
        b5 = findViewById(R.id.b5);
        b6 = findViewById(R.id.b6);
        b7 = findViewById(R.id.b7);
        b8 = findViewById(R.id.b8);
        b9 = findViewById(R.id.b9);

        sum = findViewById(R.id.add);
        sub = findViewById(R.id.sub);
        mul = findViewById(R.id.mul);
        div = findViewById(R.id.div);

        equal = findViewById(R.id.equal);
        clear = findViewById(R.id.clr);

        b0.setOnClickListener(this);
        b1.setOnClickListener(this);
        b2.setOnClickListener(this);
        b3.setOnClickListener(this);
        b4.setOnClickListener(this);
        b5.setOnClickListener(this);
```

```java
        b6.setOnClickListener(this);
        b7.setOnClickListener(this);
        b8.setOnClickListener(this);
        b9.setOnClickListener(this);

        mul.setOnClickListener(this);
        div.setOnClickListener(this);


        sub.setOnClickListener(this);
        sum.setOnClickListener(this);
        clear.setOnClickListener(this);
        equal.setOnClickListener(this);
    }

    @Override
    public void onClick(View view) {
        Button b = (Button) view;
        if (view == clear) {
            number.setText("");
        } else if (view == sub || view == sum || view == mul || view == div)
{
            num1 = Integer.parseInt(number.getText().toString());
            op = b.getText().toString();
            number.setText("");
        } else if (view == equal) {
            num2 = Integer.parseInt(number.getText().toString());
            if (op.equals("+")) {
                number.setText(num1 + num2 + "");
            } else if (op.equals("-")) {
                number.setText(num1 - num2 + "");
            } else if (op.equals("x")) {
                number.setText(num1 * num2 + "");
            } else if (op.equals("/")) {
                number.setText(num1 / num2 + "");
            }
        } else {
            String s = number.getText().toString();
            number.setText(s + b.getText().toString());
        }
    }
}
```
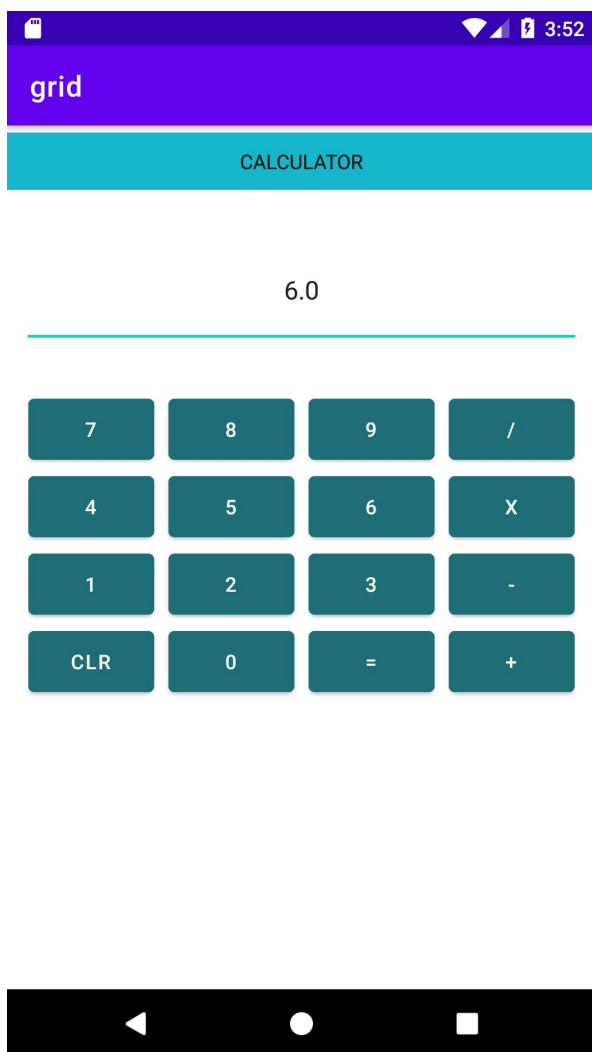
OUTPUT

grid

3:52

CALCULATOR

6.0

7	8	9	/
4	5	6	X
1	2	3	-
CLR	0	=	+

PROGRAM NO:07

DATE: 05/10/22

FACEBOOK PAGE

AIM

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

XML CODE

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

    android:background="#3264a8"
    tools:context=".MainActivity">

 <ImageView
        android:id="@+id/imageView"
        android:layout_width="231dp"
        android:layout_height="286dp"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="100dp"
        app:srcCompat="@drawable/fb" />

    <EditText
        android:id="@+id/usn"
        android:layout_width="396dp"
        android:layout_height="wrap_content"
        android:layout_marginTop="350dp"
        android:ems="10"
        android:inputType="textPersonName"
        android:text=" username or email" />
```
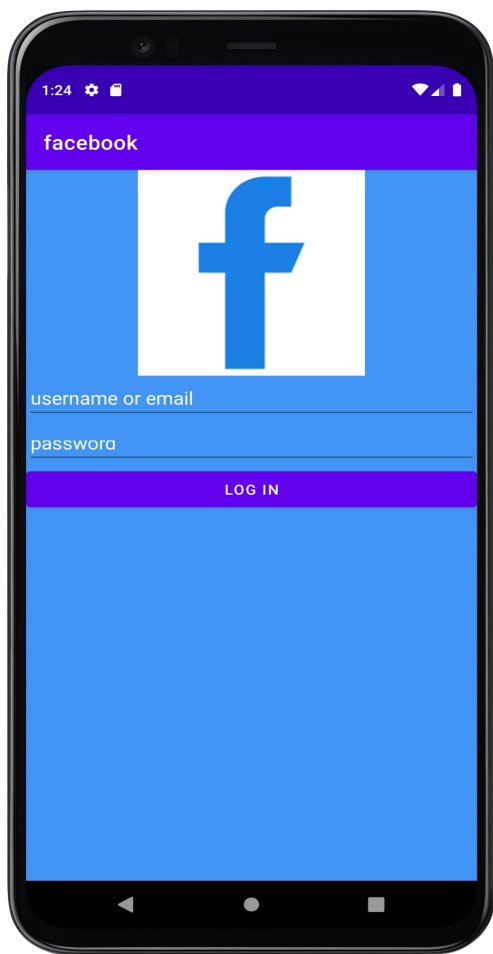
```xml
<EditText
    android:id="@+id/pswd"
    android:layout_width="match_parent"
    android:layout_height="57dp"
    android:layout_marginTop="400dp"
    android:ems="10"
    android:inputType="textPersonName"
    android:text="password" />

<Button
    android:id="@+id/btn"
    android:layout_width="250dp"
    android:layout_height="wrap_content"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="500dp"
    android:backgroundTint="#CB06336A"
    android:text="LOGIN"
    android:textColor="#FFFFFF" />

</RelativeLayout>
```

OUTPUT

PROGRAM NO:08
DATE:20 /10/22

TOGGLE IMAGE

AIM

Develop an application that toggles image using FrameLayout Course Outcome

XML CODE

```xml
<?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:visibility="visible"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/img1"
        android:layout_width="match_parent"
        android:layout_height="199dp"
        android:onClick="onClick"
        app:srcCompat="@android:drawable/ic_menu_report_image"
        tools:layout_editor_absoluteX="14dp"
        tools:layout_editor_absoluteY="13dp" />

    <ImageView
        android:id="@+id/img2"
        android:layout_width="129dp"
        android:layout_height="196dp"
        app:srcCompat="@android:drawable/btn_star_big_on" />

</FrameLayout>
```

JAVA CODE

```java
package com.example.frame;

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 img,img0;


    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        img=(ImageView) findViewById(R.id.img1);
        img0=(ImageView) findViewById(R.id.img2);
        img.setOnClickListener(this);
        img0.setOnClickListener(this);
    }
@Override
    public void onClick(View v) {
        if(v==img){
            img.setVisibility(View.GONE);
            img0.setVisibility(View.VISIBLE);
        } else
        {
            img0.setVisibility(View.GONE);
            img.setVisibility(View.VISIBLE);
        }

    }
}
```
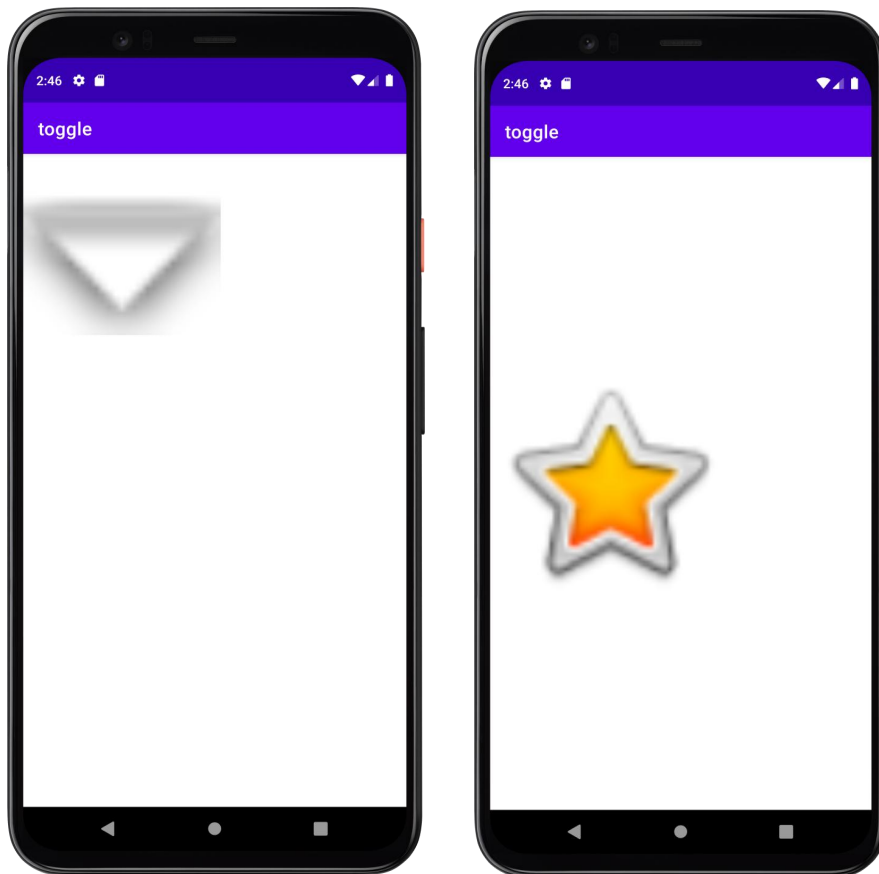
OUTPUT

PROGRAM NO:09
DATE: 30/10/22

INTENTS

AIM

Implement Intent to navigate between multiple activities

XML CODE

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

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="hiiiiiiiiiii"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

        <Button
            android:id="@+id/btn"
            android:layout_width="195dp"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:onClick="onClick"
            android:text="Button" />

        <EditText
            android:id="@+id/ET"
            android:layout_width="wrap_content"
```

```xml
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:ems="10"
            android:inputType="textPersonName" />

        <EditText
            android:id="@+id/ET4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:ems="10"
            android:inputType="textPersonName"
            android:text="Name" />
    </LinearLayout>

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

JAVA CODE

```java
package com.example.co21pgm;

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {
    EditText txt,text;
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        txt=findViewById(R.id.ET);
        text=findViewById(R.id.ET4);
        b1=findViewById(R.id.btn);
    }

    public void onClick(View view) {
        Intent i = new Intent(MainActivity.this,lifecycle.class);
        String var=txt.getText().toString();
        String var1=text.getText().toString();

        Bundle b=new Bundle();
        b.putString("name",var);
        b.putString("name1",var1);
        i.putExtras(b);
        startActivity(i);

    }
}
```

2 ACTIVITY

XML CODE

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

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

        <TextView
            android:id="@+id/ET2"
            android:layout_width="match_parent"
            android:layout_height="88dp" />

        <TextView
            android:id="@+id/et2"
            android:layout_width="match_parent"
            android:layout_height="79dp"
            android:text="TextView" />

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

JAVA CODE

```java
package com.example.co21pgm;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class lifecycle extends AppCompatActivity {
    TextView txt1,txt2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_lifecycle);
         txt1=findViewById(R.id.et2);
         txt2=findViewById(R.id.ET2);

        Bundle extras=getIntent().getExtras();
        String v=extras.getString("name");
        String v1=extras.getString("name1");
        txt1.setText(v+"");
        txt2.setText(v1+"");
        Toast.makeText(this,
"welcome!!!!!!!!!!!",Toast.LENGTH_SHORT).show();
}
```
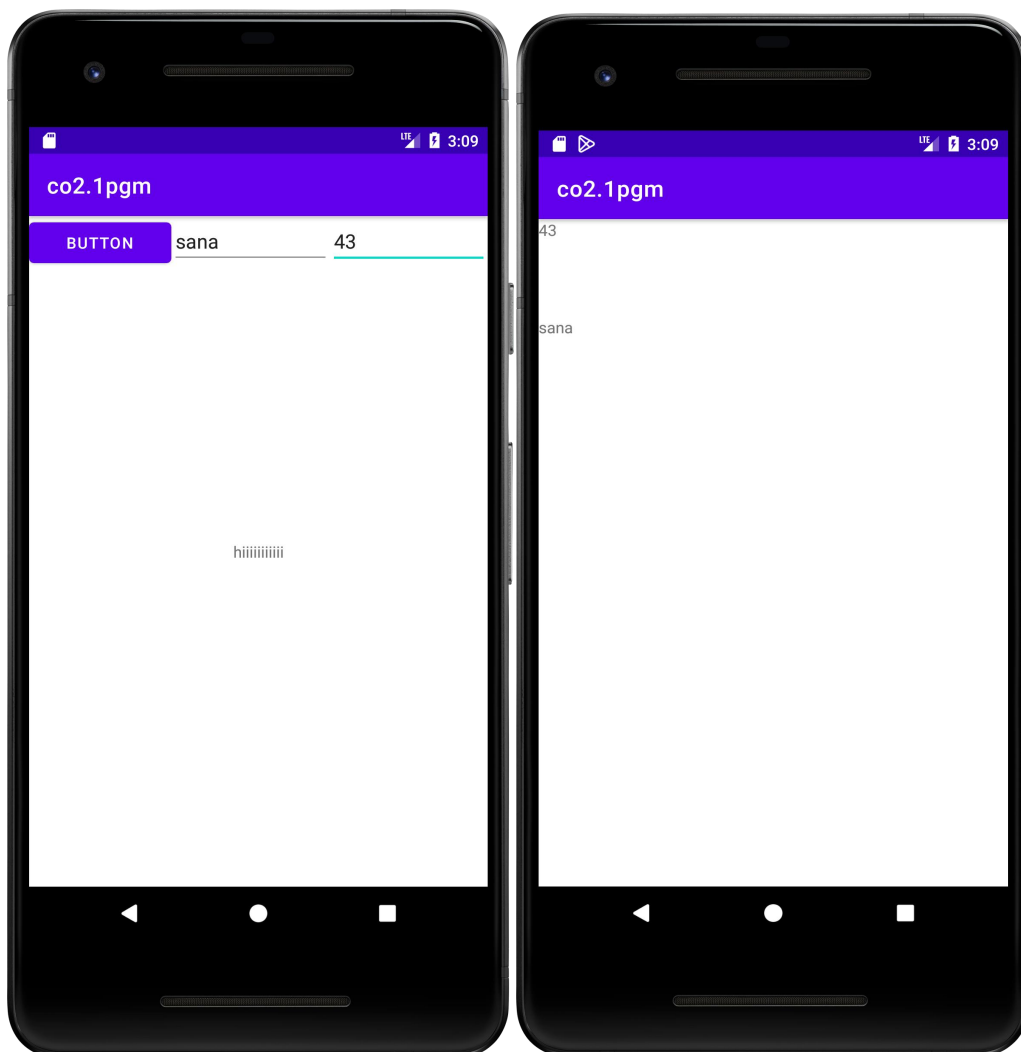
```
    }
```

OUTPUT

PROGRAM NO:10
DATE: 10/11/22

MENU

AIM

Implement Options Menu to navigate to activities

XML CODE

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

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hello World!"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

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

Java CODE

```java
package com.example.co32menu;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuInflater;
import android.view.MenuItem;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
```

```java
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public boolean onCreateOptionsMenu(Menu menu){
        MenuInflater inflater=getMenuInflater();
        inflater.inflate(R.menu.samplemenu,menu);
        return true;


    }
    public boolean onOptionsItemSelected(MenuItem item){
        switch (item.getItemId()){
            case R.id.t1:
                Intent i=new Intent(this,MainActivity2.class);
                    startActivity(i);
                break;
            case R.id.t2:
                Toast.makeText(this,"item 2",Toast.LENGTH_LONG).show();
                break;
            case R.id.s1:
                Toast.makeText(this,"welcome
back",Toast.LENGTH_LONG).show();
                break;
            case R.id.s2:
                Intent a=new Intent(this,MainActivity2.class);
                startActivity(a);
                break;



        }
        return true;
    }
}
```

XML CODE 2

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

    <ImageView
        android:id="@+id/imageView2"
        android:layout_width="316dp"
        android:layout_height="262dp"
        app:srcCompat="@drawable/ic_launcher_background"
        tools:layout_editor_absoluteX="88dp"
        tools:layout_editor_absoluteY="226dp" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Java CODE 2

```java
package com.example.co32menu;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity2 extends AppCompatActivity {

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
    }
}
```

SAMPLE MENU

```xml
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:android="http://schemas.android.com/apk/res/android">

    <item
        android:id="@+id/t1"
        android:title="Item">
        <menu>
            <item
                android:id="@+id/s1"
                android:title="sub" />
            <item
                android:id="@+id/s2"
                android:title="sub" />
            <item
                android:id="@+id/s3"
                android:title="sub" />

        </menu>
    </item>
    <item
        android:id="@+id/t2"
        android:title="Item" />
</menu>
```
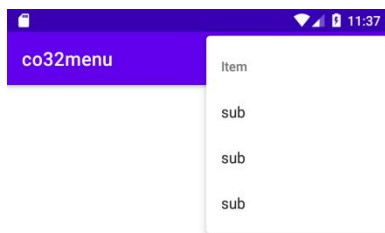
OUTPUT

co32menu

Item

sub

sub

sub

Hello World!

PROGRAM NO:11
DATE: 20/11/22

DATABASE MANAGEMENT

AIM

Create database using SQLite and perform INSERT , SELECT , UPDATE and DELETE on SQLite database

XML CODE

```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"
    tools:context=".MainActivity">

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

        <EditText
            android:id="@+id/name"
            android:layout_width="match_parent"
            android:layout_height="59dp"
            android:ems="10"
            android:inputType="textPersonName"
            android:hint="name" />

        <EditText
            android:id="@+id/sub"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:ems="10"
            android:inputType="textPersonName"
            android:hint="subject" />

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

```xml
            android:ems="10"
            android:inputType="textPersonName"
            android:hint="mark" />

        <Button
            android:id="@+id/insert"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="INSERT" />

        <Button
            android:id="@+id/select"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="SELECT" />

        <Button
            android:id="@+id/update"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="UPDATE" />

        <Button
            android:id="@+id/delete"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="DELETE" />

        <Button
            android:id="@+id/clear"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="CLEAR" />

</LinearLayout>
```

Java

```java
package com.example.co5_1;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

 public class MainActivity extends AppCompatActivity {
    EditText name,sub,mark;
    Button insert,select,update,delete,clear;
    SQLiteDatabase data;
    AlertDialog.Builder builder;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
```

```java
            name = findViewById(R.id.name);
            sub = findViewById(R.id.sub);
            mark = findViewById(R.id.mark);
            insert = findViewById(R.id.insert);
            select = findViewById(R.id.select);
            update = findViewById(R.id.update);
            delete = findViewById(R.id.delete);
            clear = findViewById(R.id.clear);
            builder = new AlertDialog.Builder(this);

            try {
                data = openOrCreateDatabase("studentdb", MODE_PRIVATE, null);
                data.execSQL("create table stud(id integer primary key,subject
Text, mark Integer)");
                Toast.makeText(this, "successfully created",
Toast.LENGTH_SHORT).show();
            } catch (Exception e) {

            }

            insert.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View view) {

                    try {
                        data.execSQL("insert into stud values(" +
name.getText().toString() + ",'" + sub.getText().toString() + "'," +
mark.getText().toString() + ")");
                        Toast.makeText(MainActivity.this, "successfully
inserted", Toast.LENGTH_SHORT).show();

                    } catch (Exception e) {
                        Toast.makeText(MainActivity.this, "error in inserting",
Toast.LENGTH_SHORT).show();
                    }

                }
            });
            clear.callOnClick();
            select.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View view) {
                    Cursor c = data.rawQuery("select * from stud", null);
                    if (c.getCount() == 0) {
                        Toast.makeText(MainActivity.this, "no such records",
Toast.LENGTH_SHORT).show();
                    } else {
                        StringBuffer b = new StringBuffer();
                        while (c.moveToNext()) {
                            b.append("id:" + c.getString(0) + "\n");
                            b.append("subject:" + c.getString(1) + "\n");
                            b.append("mark:" + c.getString(2) + "\n");
                        }
                        Toast.makeText(getApplicationContext(), b.toString(),
Toast.LENGTH_SHORT).show();
                        builder.setMessage(b.toString());
                        AlertDialog alert = builder.create();
                        alert.setTitle("student details");
                        alert.show();
                    }
                }
            });
```

```java
        update.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                data.execSQL("update stud set mark="
+mark.getText().toString()+",sub='"+sub.getText().toString()+"' where
"+name.getText().toString()+"");
                Toast.makeText(getApplicationContext(), "updated....",
Toast.LENGTH_SHORT).show();
            }
        });
        delete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                data.execSQL("delete from stud where mark="
+mark.getText().toString());
                Toast.makeText(getApplicationContext(), "Item Deleted",
Toast.LENGTH_SHORT).show();
            }
        });

        clear.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                name.setText("");
                sub.setText("");
                mark.setText("");

            }
        });
        clear.callOnClick();

    }
 }
```
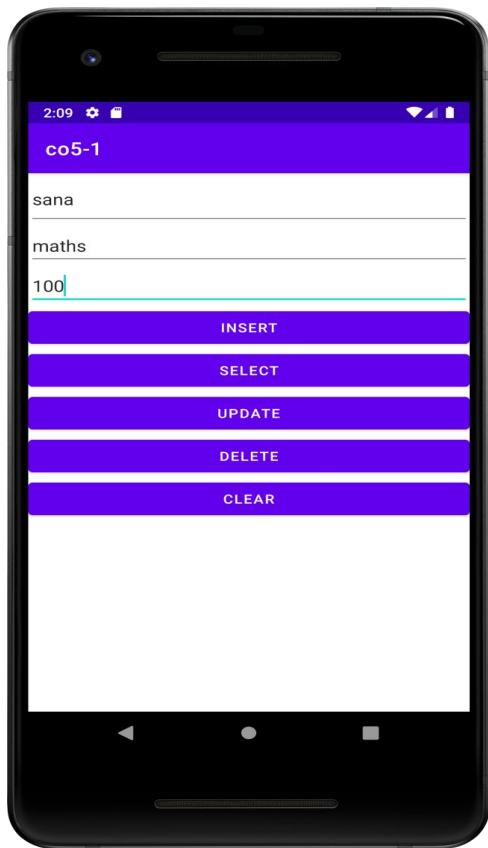
OUTPUT

COURSE OUTCOME 1

COURSE OUTCOME 2

COURSE OUTCOME 3

COURSE OUTCOME 5