

LABORATORY RECORD

YEAR: 2022 TO 2023

NAME: SANA LAKSHMI E R

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

NO	PROGRAM	DATE
·	COURSE OUTCOME 1	1
1	LOGIN FORM	30/08/22
2	ACTIVITY LIFECYCLE	03/09/22
3	SIMPLE CALCULATOR	10/09/22
4	FORM VALIDATION	20/09/22
	COURSE OUTCOME 2	
5	INTENT AND SHARED PREFERENCES	25/09/22
6	GRID CALCULATOR	30/09/22
7	FACEBOOK PAGE	05/10/22
8	TOGGLE IMAGE	20/10/22
	COURSE OUTCOME 3	
9	INTENT	30/10/22
10	MENU	10/11/22
	COURSE OUTCOME 5	
11	DATABASE MANAGEMENT	20/11/22

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 version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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

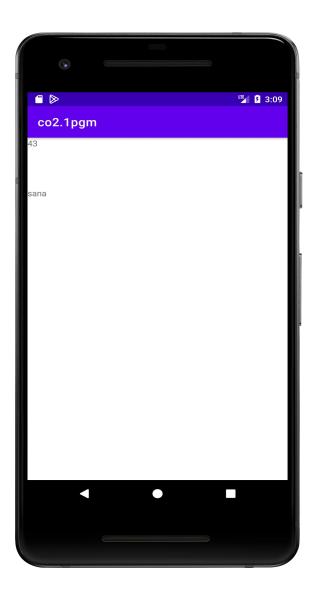
```
package com.example.sharedprefer;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends 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 version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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</pre>
        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"
```

```
android:layout height="wrap content" />
    </LinearLayout>
</androidx.constraintlayout.widget.ConstraintLayout>
JAVA CODE 2
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);

}

OUTPUT



PROGRAM NO:06 DATE: 30/09/22

GRID CALCULATOR

<u>AIM</u>

Design a simple Calculator using GridLayout and Cascaded LinearLayout

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

```
<androidx.gridlayout.widget.GridLayout</pre>
   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" />
   <But.ton
       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"
```

```
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" />
```

```
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" />
        <But.ton
            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"</pre>
    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" />
```

<Button

```
<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</pre>
    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" />
    <But.ton
        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"
   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" />
   <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>
```

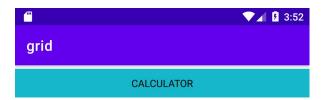
</LinearLayout>

JAVA CODE

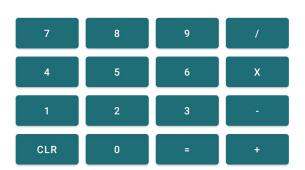
```
package com.example.grid;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends AppCompatActivity implements
View.OnClickListener {
    EditText number;
    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);
```

```
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());
}
```

<u>OUTPUT</u>



6.0



PROGRAM NO:07

DATE: 05/10/22

FACEBOOK PAGE

<u>AIM</u>

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

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

```
<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 version="1.0" encoding="utf-8"?>
<FrameLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
    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</pre>
        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</pre>
        android:id="@+id/img2"
        android:layout_width="129dp"
        android:layout height="196dp"
        app:srcCompat="@android:drawable/btn star big on" />
</FrameLayout>
```

JAVA CODE

```
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 version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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="hiiiiiiiiii"
        app:layout constraintBottom toBottomOf="parent"
        app:layout constraintEnd toEndOf="parent"
        app:layout constraintStart toStartOf="parent"
        app:layout constraintTop toTopOf="parent" />
    <LinearLayout</pre>
        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"
```

```
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
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

}

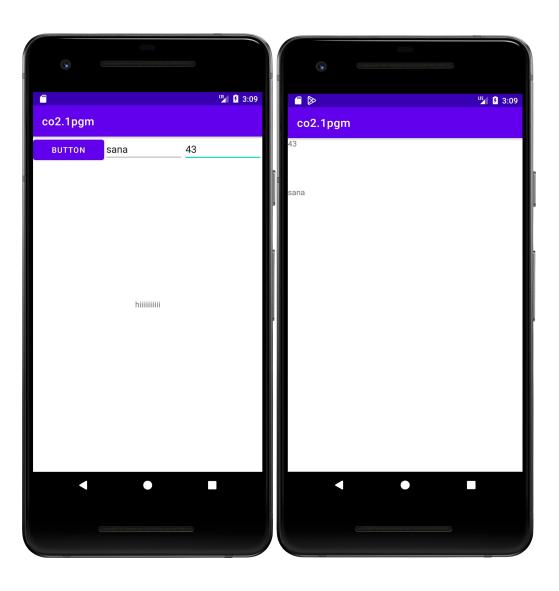
```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/et"
    android:layout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

```
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 version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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
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 {
```

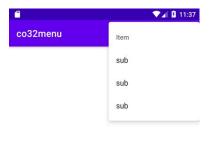
```
@Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity main);
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater=getMenuInflater();
        inflater.inflate(R.menu.samplemenu, 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();
            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 version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout</pre>
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</pre>
        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

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



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 version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   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"
```

```
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
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);
```

android:ems="10"

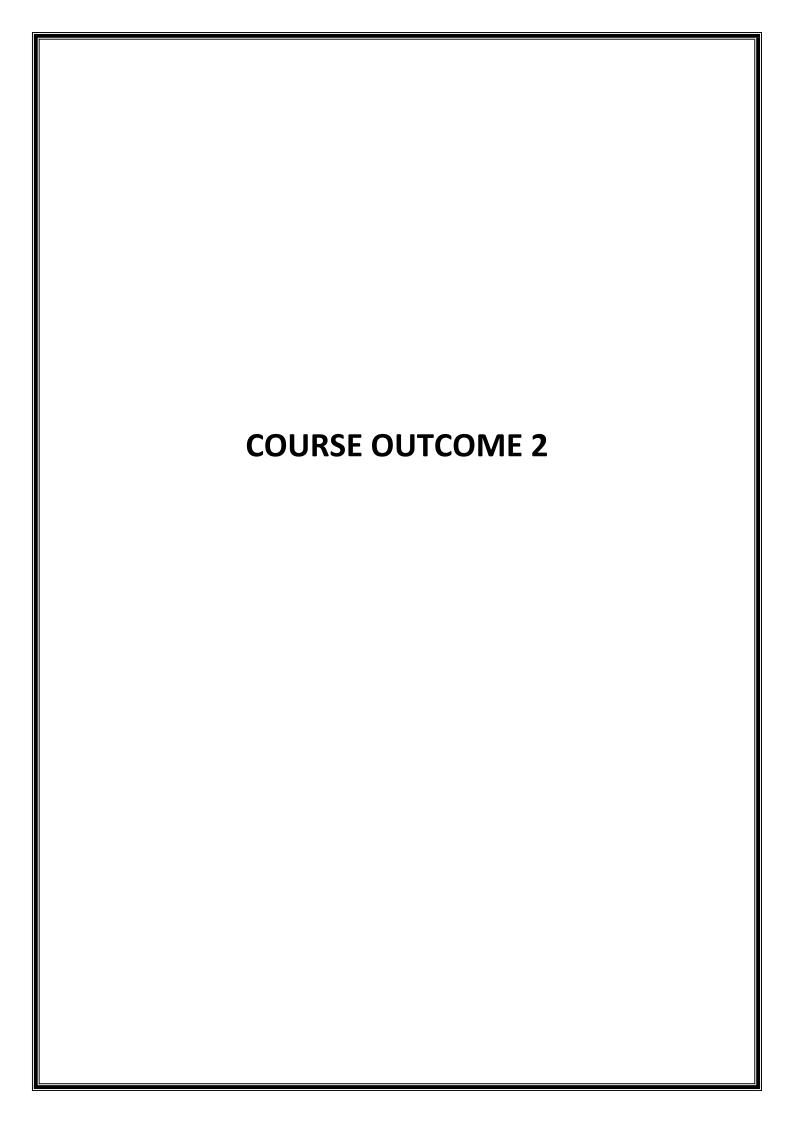
```
name = findViewById(R.id.name);
        sub = findViewById(R.id.sub);
        mark = findViewById(R.id.mark);
        insert = findViewById(R.id.insert);
        select = findViewById(R.id.select);
        update = findViewById(R.id.update);
        delete = findViewById(R.id.delete);
        clear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

```
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	3

COURSE OUTCOME 5