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**LABORATORY RECORD  
YEAR: 2022 TO 2023**

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*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.*

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Submitted for University Practical Examination

**Reg. No:** SNG21MCA-2007    **on**-----

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**PROGRAM NO:5**

**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

### **PAGE 1**

#### **XML CODE:**

```
<?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:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:background="@color/black"
        android:textColor="@color/white"
        android:text="ENTER THE DETAILS"
        android:layout_marginTop="30px"
        android:textSize="25sp"
    />

    <EditText
        android:id="@+id/fullname"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:layout_marginTop="30sp"
        android:inputType="textPersonName"
        android:hint="FULL NAME" />

    <EditText
        android:id="@+id/email"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:layout_marginTop="30sp"
        android:hint="EMAIL"
        android:inputType="textPersonName" />
```

```
<EditText
    android:id="@+id/location"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
    android:layout_marginTop="30sp"
    android:inputType="textPersonName"
    android:hint="LOCATION" />
```

```
<Button
    android:id="@+id/button"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="30sp"
    android:onClick="reg"
    android:text="REGISTER" />
```

```
</LinearLayout>
```

### **JAVA CODE:**

```
package com.example.registration_intent_shared;
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;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    EditText name,email,location;
    SharedPreferences sp;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        name=findViewById(R.id.fullname);
        email=findViewById(R.id.email);
        location=findViewById(R.id.location);
        sp=getSharedPreferences("register",MODE_PRIVATE);
    }

    public void reg(View view) {
        Toast.makeText(this,"REGISTERED
SUCCESSFULLY",Toast.LENGTH_SHORT).show();
        Intent i=new Intent(MainActivity.this,MainActivity2.class);
        String val1=name.getText().toString();

        String val2=email.getText().toString();
```

```

        i.putExtra("name",val1);
        i.putExtra("email",val2);

        SharedPreferences.Editor ed=sp.edit();
        ed.putString("location",location.getText().toString());
        ed.commit();
        startActivity(i);
    }
}

```

## **PAGE 2**

### **XML CODE:**

```

<?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=".MainActivity2">

    <TextView
        android:id="@+id/det"
        android:layout_width="match_parent"
        android:layout_marginTop="30px"
        android:fontFamily="serif"
        android:textStyle="bold"
        android:textColor="@color/white"
        android:gravity="center"
        android:background="@color/black"
        android:textSize="25sp"
        android:layout_height="wrap_content"
        android:text="REGISTRATION DETAILS" />

    <TextView
        android:id="@+id/name"
        android:layout_width="match_parent"
        android:layout_marginTop="30px"
        android:fontFamily="serif"
        android:textStyle="bold"
        android:textColor="#5981f7"
        android:gravity="center"
        android:textSize="25sp"
        android:layout_height="wrap_content"
        android:text="NAME" />

    <TextView
        android:id="@+id/email"

```

```

        android:textColor="#5981f7"
        android:fontFamily="serif"
        android:layout_marginTop="30px"
        android:textSize="25sp"
        android:textStyle="bold"
        android:gravity="center"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="EMAIL" />

```

```

<TextView
    android:id="@+id/location"
    android:textColor="#5981f7"
    android:fontFamily="serif"
    android:layout_marginTop="30px"
    android:textSize="25sp"
    android:textStyle="bold"
    android:gravity="center"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="LOCATION" />

```

```

</LinearLayout>

```

### **JAVA CODE:**

```

package com.example.registration_intent_shared;
import android.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.content.SharedPreferences;
import android.os.Bundle;
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {
    TextView t1,t2,t3;
    SharedPreferences sp;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        t1=findViewById(R.id.name);
        t2=findViewById(R.id.email);
        t3=findViewById(R.id.location);
        sp=getSharedPreferences("register",MODE_PRIVATE);

        Intent intent=getIntent();
        String val1=intent.getStringExtra("name");
        String val2=intent.getStringExtra("email");
        String val3=sp.getString("location","");

        t1.setText("NAME: "+val1);

```

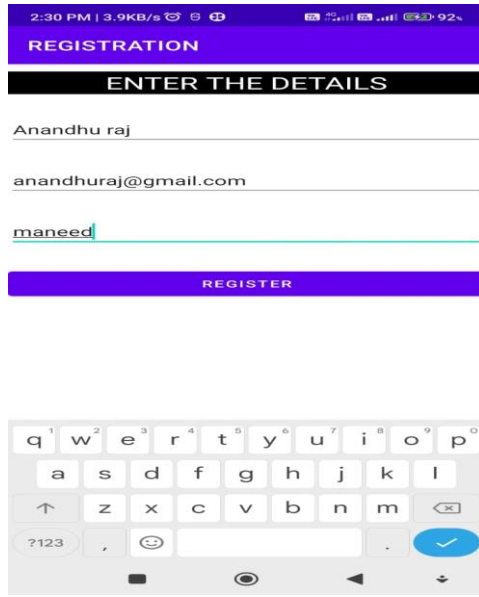
```

t2.setText("EMAIL: "+val2);
t3.setText("LOCATION: "+val3);

    }
}

```

## OUTPUT:



**PROGRAM NO:6**

**DATE:30/09/22**

## **GRID CALCULATOR**

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

### **XML CODE:**

```
<?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="WELCOME" />

    <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="#6e7778"

    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="#6e7778"
        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="#6e7778"
        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="#3C393B"
        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="#6e7778"
        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="#6e7778"
```

```
        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="#6e7778"  
    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="#3C393B"  
    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="#6e7778"  
    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="#6e7778"  
    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="#6e7778"  
    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="#3C393B"
    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="#3C393B"
    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="#6e7778"
    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="#3C393B"
    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="#3C393B"
    android:text="+"
    app:layout_column="3"
```

```
app:layout_row="3" />
```

```
</androidx.gridlayout.widget.GridLayout>
```

```
</LinearLayout>
```

### **JAVA CODE:**

```
package com.example.gridcalculator;
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);SSSSS
        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("");
        }

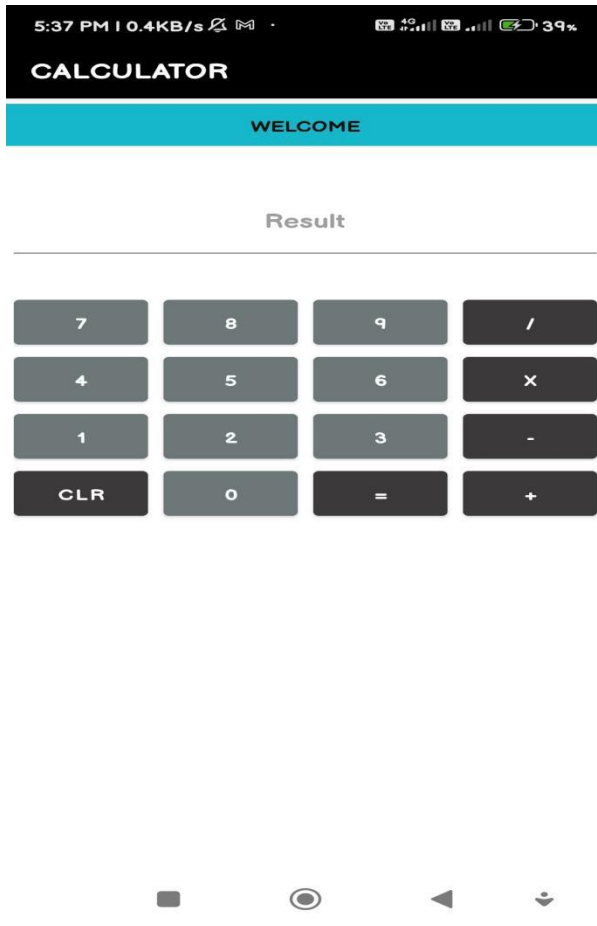
        else if(view==sub||view==sum||view==mul||view==div)
        {
            num1=Integer.parseInt(number.getText().toString());
            op=b.getText().toString();
            number.setText("");
        }

        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:



**PROGRAM NO:7**

**DATE:05/10/22**

## **FACEBOOK PAGE**

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

### **XML CODE:**

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#3e52ab"
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="match_parent"
        android:layout_height="100dp"
        android:layout_gravity="center"
        android:layout_marginTop="40dp"
        app:srcCompat="@drawable/facebook" />

    <EditText
        android:id="@+id/username"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:layout_below="@+id/imageView"
        android:layout_marginLeft="10dp"
        android:layout_marginRight="10dp"
        android:layout_marginTop="60dp"
        android:background="@drawable/back"
        android:ems="10"
        android:hint="Email or Phone Number"
        android:inputType="textPersonName"
        android:paddingLeft="30dp"
        android:textColor="@color/white"
        android:textColorHint="@color/white"
        android:textSize="19sp" />

    <EditText
        android:id="@+id/password"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:layout_below="@+id/username"
        android:layout_marginLeft="10dp"
```

```

        android:layout_marginTop="10dp"

        android:layout_marginRight="10dp"
        android:background="@drawable/back"
        android:ems="10"
        android:hint="password"
        android:inputType="textPersonName"
        android:paddingLeft="30dp"
        android:textColor="@color/white"
        android:textColorHint="@color/white"
        android:textSize="19sp" />

<Button
    android:id="@+id/button"
    android:layout_width="260dp"
    android:layout_height="55dp"
    android:layout_below="@+id/password"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="40dp"
    android:backgroundTint="#46b082"
    android:text="Login"
    android:textSize="18sp" />

<TextView
    android:id="@+id/textView"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@id/button"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="15dp"
    android:text="Forgot account?"
    android:textColor="@color/white"
    android:textSize="22dp" />

<View
    android:layout_width="match_parent"
    android:layout_height="2dp"
    android:layout_below="@+id/textView"
    android:layout_marginTop="20dp"
    android:background="#94918e" />

<Button
    android:id="@+id/button2"
    android:layout_width="260dp"
    android:layout_height="55dp"
    android:layout_below="@+id/textView"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="70dp"
    android:backgroundTint="#46b082"
    android:text="Create New Account" />
</RelativeLayout>

```



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

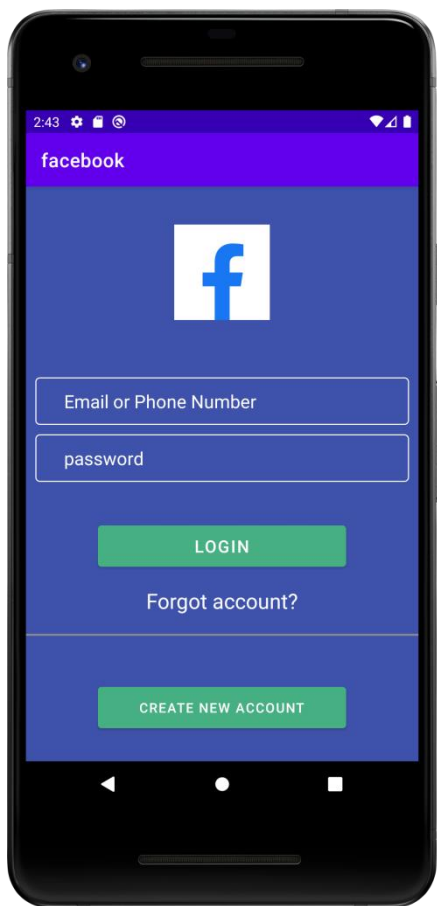
    <!-- View background color -->
    <solid
        android:color="#3e52ab" >
    </solid>

    <!-- View border color and width -->
    <stroke
        android:width="1dp"
        android:color="@color/white" >
    </stroke>

    <!-- The radius makes the corners rounded -->
    <corners
        android:radius="4dp"    >
    </corners>

</shape>
```

## OUTPUT:



**PROGRAM NO:**8

**DATE:**20/10/22

## **TOGGLE IMAGE**

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

### **XML CODE:**

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

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

        <ImageView
            android:id="@+id/image1"
            android:layout_width="match_parent"
            android:layout_height="100dp"
            app:srcCompat="@android:drawable/btn_star" />

        <ImageView
            android:id="@+id/image2"
            android:layout_width="match_parent"
            android:layout_height="100dp"
            app:srcCompat="@android:drawable/ic_lock_idle_lock" />
    </LinearLayout>
</FrameLayout>
```

### **JAVA CODE:**

```
package com.example.imagetoggle;

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 img1,img2;
    @Override
```

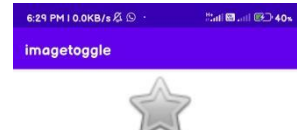
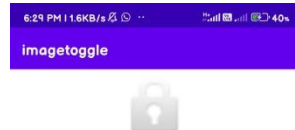
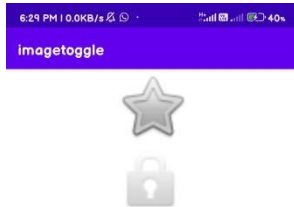
```

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    img1=findViewById(R.id.image1);
    img2=findViewById(R.id.image2);
    img1.setOnClickListener(this);
    img2.setOnClickListener(this);
}
@Override
public void onClick(View v) {
if(v==img1)
{
    img1.setVisibility(View.GONE);
    img2.setVisibility(View.VISIBLE);
}
else
{
    img2.setVisibility(View.GONE);
    img1.setVisibility(View.VISIBLE);
}
}
}

```

## OUTPUT:



**PROGRAM NO:9**

**DATE:30/10/22**

## **INTENT**

**AIM:**Implement Intent to navigate between multiple activities

### **PAGE 1**

#### **XML CODE:**

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

    <Button
        android:id="@+id/button"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Next Page"
        android:onClick="click"
        tools:layout_editor_absoluteX="144dp"
        tools:layout_editor_absoluteY="157dp"
        tools:ignore="MissingConstraints" />

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

#### **JAVA CODE:**

```
package com.example.intent;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class MainActivity extends AppCompatActivity {
    Button b1;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        b1=findViewById(R.id.button);
    }
}
```

```

    }

    public void click(View view) {
        Intent i=new Intent(MainActivity.this,MainActivity2.class);
        startActivity(i);
    }
}

```

## **PAGE 2**

### **XML CODE:**

```

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

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="previous page"
        android:onClick="click"
        tools:layout_editor_absoluteX="149dp"
        tools:layout_editor_absoluteY="113dp" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

### **JAVA CODE:**

```

package com.example.intent;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;

public class MainActivity2 extends AppCompatActivity {

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

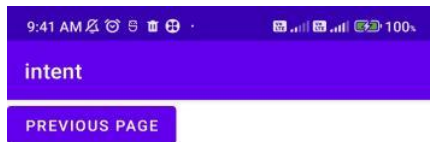
    public void click(View view) {

```

```
Intent i=new Intent(MainActivity2.this,MainActivity.class);
```

```
    startActivity(i);  
    }  
}
```

## OUTPUT:



**PROGRAM NO:10**

**DATE:10/11/22**

## **MENU**

**AIM:**Implement Options Menu to navigate to activities

### **MENU**

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <item
        android:id="@+id/item1"
        android:title="DEPARTMENT">
        <menu>
            <item
                android:id="@+id/inside1"
                android:title="MCA" />
            <item
                android:id="@+id/inside2"
                android:title="MBA" />
        </menu>
    </item>
    <item
        android:id="@+id/item2"
        android:title="STUDENTS" />
</menu>
```

### **XML CODE:**

```
<?xml version="1.0" encoding="utf-8"?>
<androidx.constraintlayout.widget.ConstraintLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    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.menu;
import androidx.annotation.NonNull;
import androidx.appcompat.app.AppCompatActivity;
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 {

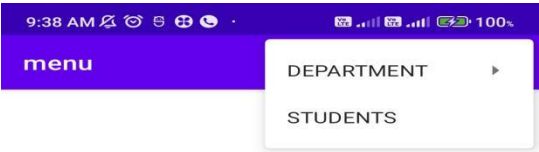
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        MenuInflater inflater=getMenuInflater();
        inflater.inflate(R.menu.menu,menu);
        return true;
    }

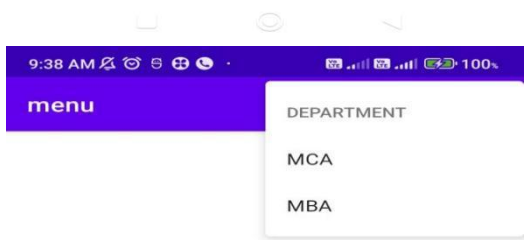
    @Override
    public boolean onOptionsItemSelected(@NonNull MenuItem item) {
        switch (item.getItemId()){
            case R.id.inside1:
                Toast.makeText(this,"mca department",Toast.LENGTH_LONG).show();
                break;
            case R.id.inside2:
                Toast.makeText(this, "mba department", Toast.LENGTH_SHORT).show();
                break;
            case R.id.item2:
                Toast.makeText(this, "students", Toast.LENGTH_SHORT).show();
                break;
        }
        return true;
    }
}
```



OUTPUT:



Hello World!



Hello World!

**PROGRAM NO:11**

**DATE:20/11/22**

## **DATABASE MANAGEMENT**

**AIM:**Create database using SQLite and perform INSERT,SELECT,UPDATE AND DELETE

### **XML CODE:**

```
<?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_height="wrap_content"
        android:text="TextView" />

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

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

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

```
<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 CODE:**

```

package com.example.database_management;
import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
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 id,name,place;
    Button insert,select,update,delete,clear;
    AlertDialog.Builder builder;
    SQLiteDatabase db;
    @Override

```

```

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    id = findViewById(R.id.id);
    name = findViewById(R.id.name);
    place = findViewById(R.id.place);
    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 {
db=openOrCreateDatabase("empdb",MODE_PRIVATE,null);
db.execSQL("create table employee(id integer primary key,name Text,place Text)");
        Toast.makeText(getApplicationContext(),
            "table created successfully",Toast.LENGTH_SHORT).show();

    } catch (Exception e) {

    }

    insert.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            try {
                db.execSQL("insert into employee values(" + id.getText().toString()
+ "," + name.getText().toString() + "," + place.getText().toString() + ")");
                Toast.makeText(getApplicationContext(),
                    "inserted successfully", Toast.LENGTH_SHORT).show();
            }
            catch(Exception e)
            {
                Toast.makeText(getApplicationContext(),
                    "error", Toast.LENGTH_SHORT).show();
            }
        }
    });

    clear.setOnClickListener();
    select.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Cursor c=db.rawQuery("select * from employee",null);
            if(c.getCount()==0)
            {
                Toast.makeText(getApplicationContext(),
                    "no record", Toast.LENGTH_SHORT).show();
            }
        }
    });
}

```

```

    }

else

{
    StringBuffer b=new StringBuffer();
    while(c.moveToNext())
    {
        b.append("id:"+c.getString(0)+"\n");
        b.append("name:"+c.getString(1)+"\n");
        b.append("place:"+c.getString(2)+"\n");
        Toast.makeText(getApplicationContext(),
b.toString(), Toast.LENGTH_SHORT).show();
        builder.setMessage(b.toString());
        AlertDialog alert=builder.create();
        alert.setTitle("Employee data");
        alert.show();
    }
}

});

update.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        db.execSQL("update
employee set name='"+name.getText().toString()+"',place='"+place.getText().toString()+"'
where id="+id.getText().toString()+"");
        Toast.makeText(getApplicationContext(),
"updated....", Toast.LENGTH_SHORT).show();
    }
});

delete.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        db.execSQL("delete from employee where id="+id.getText().toString());
        Toast.makeText(getApplicationContext(),"ItemDeleted",
Toast.LENGTH_SHORT).show();
    }
});

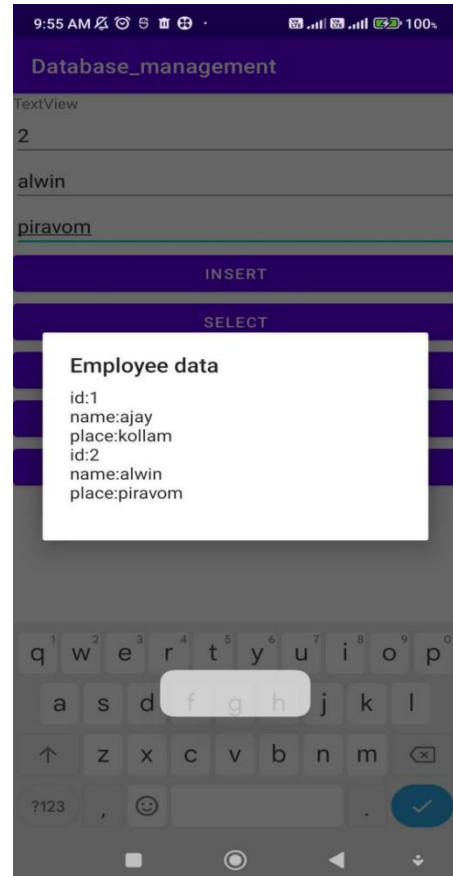
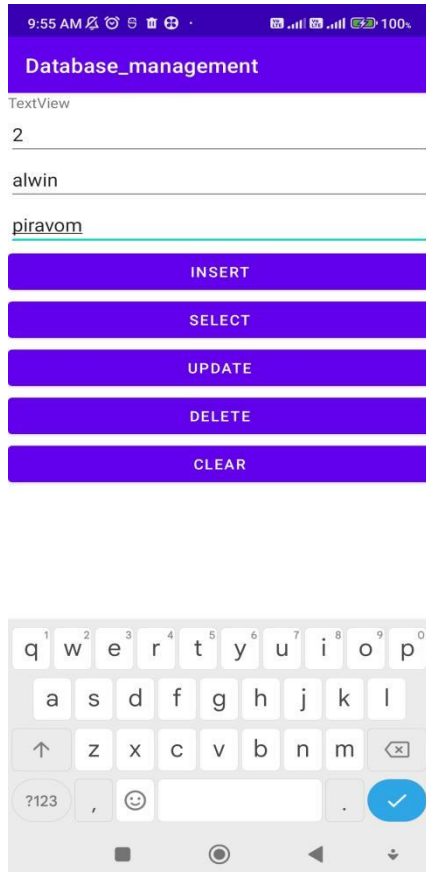
clear.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        id.setText("");
        name.setText("");
        place.setText("");
    }
});

```

```
clear.setOnClickListener();
```

```
    }  
}
```

## OUTPUT:



# **COURSE OUTCOME 1**

## **COURSE OUTCOME 2**



## **COURSE OUTCOME 3**

## **COURSE OUTCOME 5**