

**PROGRAM NO:1**

**Aim:** Program to develop the android mobile application which consist of GUI components for Login Page creation.

**XML Code:**

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity"

    android:orientation="vertical">

    <TextView

        android:id="@+id/l1"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:ems="10"

        android:gravity="center"

        android:text="Login"

        android:textColor="#630DFB"

        android:textSize="50dp"

        tools:layout_editor_absoluteX="31dp"

        tools:layout_editor_absoluteY="39dp" />

    <EditText
```

```
android:id="@+id/e1"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:ems="10"

android:inputType="textPersonName"

android:minHeight="48dp"

android:text="User Name" />

<EditText

android:id="@+id/e2"

android:layout_width="match_parent"

android:layout_height="wrap_content"

android:ems="10"

android:inputType="textPassword"

android:minHeight="48dp"

android:text="Password" />

<Button

android:id="@+id/b1"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_gravity="right"

android:text="Login" />

</LinearLayout>
```

**JAVA CODE:**

```
package com.example.login;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    private TextView t1;

    private EditText e1;

    private EditText e2;

    private Button b1;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

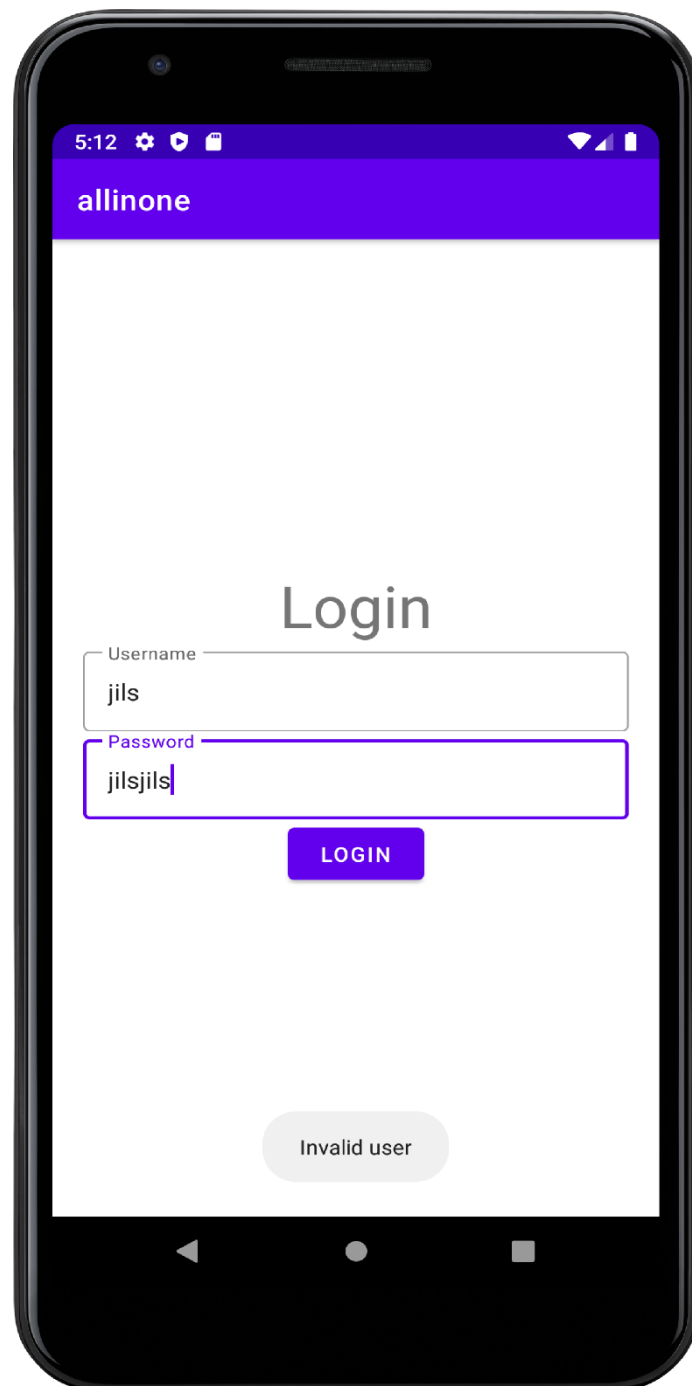
        b1=findViewById(R.id.b1);

        e1=findViewById(R.id.e1);

        e2=findViewById(R.id.e2);

    }

}
```

**OUTPUT:**

**PROGRAM NO:2**

**Aim:** Program to display the content of EditText in TextView on button click.

**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"

    tools:context=".MainActivity"

    android:orientation="vertical"

    android:background="#DFF6C4">

    <EditText

        android:id="@+id/text1"

        android:layout_width="261dp"

        android:layout_height="78dp"

        android:background="@color/teal_700"

        android:hint="Write here!"

        android:textSize="25dp"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintLeft_toLeftOf="parent"

        app:layout_constraintRight_toRightOf="parent"
```

```

app:layout_constraintTop_toTopOf="parent" />

<Button

android:id="@+id/button"

android:layout_width="match_parent"

android:layout_height="71dp"

android:gravity="center"

android:text="Print" />

<TextView

android:id="@+id/textView2"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintLeft_toLeftOf="parent"

app:layout_constraintRight_toRightOf="parent"

app:layout_constraintTop_toTopOf="parent" />

</LinearLayout>

```

### **JAVA CODE:**

```

package com.example.textview;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

```

```
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    private EditText t1;

    private TextView t2;

    private Button b1;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        t1=findViewById(R.id.text1);

        t2=findViewById(R.id.textView2);

        b1=findViewById(R.id.button);

        b1.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View v) {

                String value = t1.getText().toString();

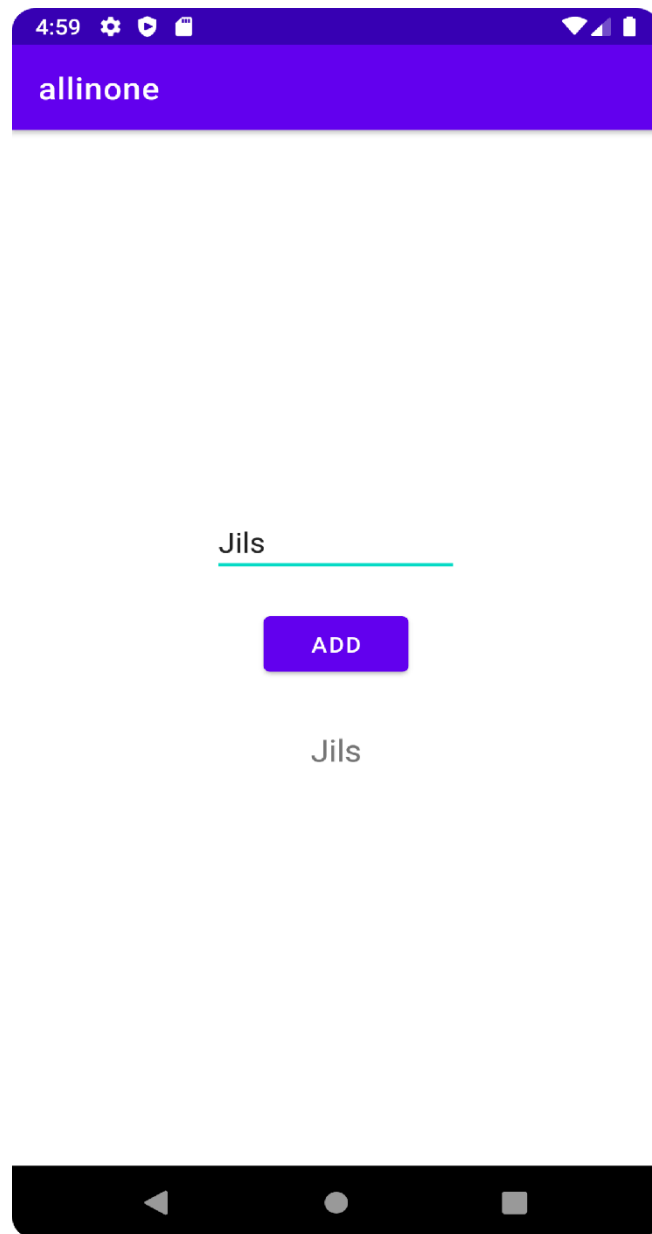
                t2.setText(String.valueOf(value));

            }

        });

    }

}
```

**OUTPUT:**



### PROGRAM NO:3

**Aim:** Design a Login Form with username and password using LinearLayout and toast valid credentials

#### XML Code:

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    xmlns:card_view="http://schemas.android.com/apk/res-auto"

    tools:context=".MainActivity"

    android:orientation="vertical"

    android:background="#000">

    <androidx.cardview.widget.CardView

        android:layout_margin="64dp"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        card_view:cardCornerRadius="8dp"

        card_view:cardElevation="8dp"
```

```
android:background="#fff">
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:orientation="vertical"
```

```
    android:padding="24dp">
```

```
<TextView
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:text="Login"
```

```
    android:textSize="36sp"
```

```
    android:textAlignment="center"
```

```
    android:layout_gravity="center_horizontal" />
```

```
<TextView
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:textSize="22sp"
```

```
    android:text="username"
```

```
    android:textColor="@color/black"/>
```

<EditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="text"

android:id="@+id/activity\_main\_usernameEditText" />

<TextView

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:textSize="22sp"

android:text="password"

android:textColor="@color/black"/>

<EditText

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:inputType="textPassword"

android:id="@+id/activity\_main\_passwordEditText" />

<Button

android:layout\_width="match\_parent"

android:layout\_height="wrap\_content"

android:id="@+id/activity\_main\_loginButton"

android:text="login"

android:textSize="22sp"/>

```
</LinearLayout>
```

```
</androidx.cardview.widget.CardView>
```

```
</LinearLayout>
```

### **JAVA CODE:**

```
package com.example.androidloginform;

import androidx.appcompat.app.AppCompatActivity;

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 {

    private EditText usernameEditText;

    private EditText passwordEditText;

    private Button loginButton;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        usernameEditText = findViewById(R.id.activity_main_usernameEditText);
```

```
passwordEditText = findViewById(R.id.activity_main_passwordEditText);

loginButton = findViewById(R.id.activity_main_loginButton);

loginButton.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        if (usernameEditText.getText().length() > 0 &&
passwordEditText.getText().length() > 0) {

            String toastMessage = "Username: " + usernameEditText.getText().toString() +
", Password: " + passwordEditText.getText().toString();

            Toast.makeText(getApplicationContext(), toastMessage,
Toast.LENGTH_SHORT).show();

        } else {

            String toastMessage = "Username or Password are not populated";

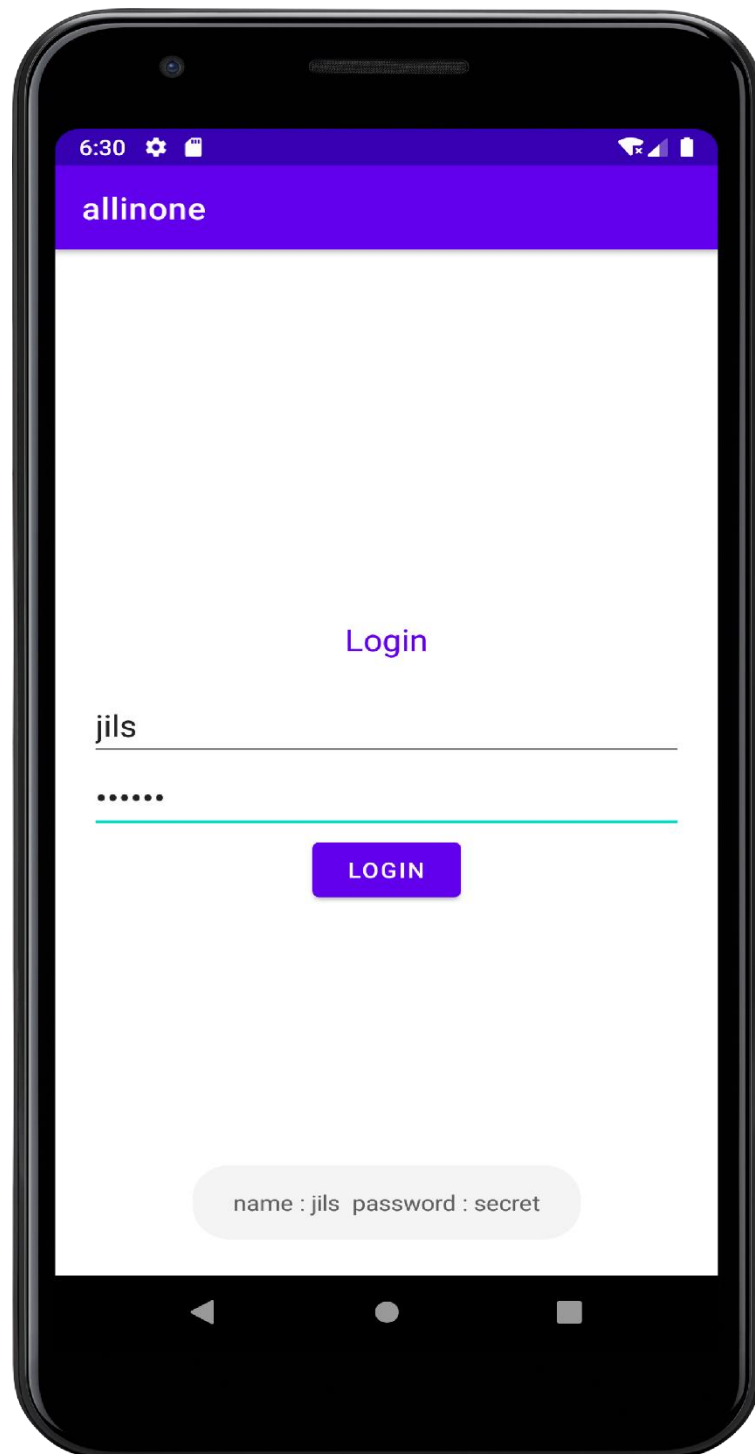
            Toast.makeText(getApplicationContext(), toastMessage,
Toast.LENGTH_SHORT).show();

        }

    }

});

}
```

**OUTPUT:**

**PROGRAM NO:4**

**Aim:** Implementing basic arithmetic operations of a simple calculator

**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"
    tools:context=".MainActivity"
    android:padding="20dp"
    android:orientation="vertical"
    android:background="@color/pastel">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="CALCULATOR"
        android:textSize="25sp"
        android:layout_marginBottom="16dp"
        android:textColor="@android:color/black" />

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginBottom="20dp">

        <EditText
            android:id="@+id/first_no"
            android:layout_width="102dp"
            android:layout_height="59dp"
```

```
android:ems="10"  
android:layout_marginHorizontal="50dp"  
android:hint="Enter" />
```

```
<EditText  
android:id="@+id/second_no"  
android:layout_width="102dp"  
android:layout_height="59dp"  
android:ems="10"  
android:hint="Enter" />
```

```
</LinearLayout>
```

```
<LinearLayout  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:orientation="horizontal"  
android:layout_marginBottom="20dp">
```

```
<TextView  
android:textSize="35sp"  
android:id="@+id/answer"  
android:layout_width="102dp"  
android:layout_height="59dp"  
android:layout_marginHorizontal="50dp"  
android:hint="ans" />
```

```
</LinearLayout>
```

```
<LinearLayout  
android:orientation="vertical"  
android:layout_marginLeft="250dp"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"
```



```
android:layout_marginBottom="30dp">
```

```
<Button
```

```
android:id="@+id/sub"
```

```
android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
```

```
android:text="-"
```

```
android:textSize="25sp"
```

```
android:layout_marginBottom="16dp" />
```

```
<Button
```

```
android:id="@+id/add"
```

```
android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
```

```
android:layout_marginBottom="16dp"
```

```
android:text="+"
```

```
android:textSize="25sp"
```

```
tools:ignore="OnClick" />
```

```
<Button
```

```
android:id="@+id/div"
```

```
android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
```

```
android:text="/"
```

```
android:textSize="25sp"
```

```
android:layout_marginBottom="16dp" />
```

```
<Button
```

```
android:id="@+id/mul"
```

```
android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"
```

```
android:layout_marginBottom="16dp"
```

```
android:text="X"
```

```
android:textSize="25sp"/>
```

```

<Button
android:id="@+id/equals"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_marginBottom="16dp"
android:text="="
android:textSize="35sp"/>
</LinearLayout>
</LinearLayout>

```

### **JAVA CODE:**

```

package com.example.calculator;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText no1 , no2;

    Button add ,mul ,div , sub,equal;

    TextView answer;

    double ans = 0;

    @Override

```

```
protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    // for text views

    no1 = findViewById(R.id.first_no);

    no2 = findViewById(R.id.second_no);


    // for button with operations

    add = findViewById(R.id.add);

    mul = findViewById(R.id.mul);

    div = findViewById(R.id.div);

    sub = findViewById(R.id.sub);

    // for equal to button

    equal = findViewById(R.id.equals);

    // for answer field

    answer = findViewById(R.id.answer);

    add.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View v) {

            String num1 = no1.getText().toString();

            String num2 = no2.getText().toString();

            if (num1.isEmpty() || num2.isEmpty()) {
```

```

        Toast.makeText(getApplicationContext(),"Enter
Numbers",Toast.LENGTH_SHORT).show();

    }

    else {

        double a = Double.parseDouble(no1.getText().toString());

        double b = Double.parseDouble(no2.getText().toString());

        ans = a + b;

    }

}

});

sub.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        String num1 = no1.getText().toString();

        String num2 = no2.getText().toString();

        if (num1.isEmpty() || num2.isEmpty()) {

            Toast.makeText(getApplicationContext(),"Enter
Numbers",Toast.LENGTH_SHORT).show();

        }

        else {

            double a = Double.parseDouble(no1.getText().toString());

            double b = Double.parseDouble(no2.getText().toString());

            ans = a - b;

```

```

    }

}

});

```

```

mul.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        String num1 = no1.getText().toString();

        String num2 = no2.getText().toString();


        if (num1.isEmpty() || num2.isEmpty()) {

            Toast.makeText(getApplicationContext(),"Enter
Numbers",Toast.LENGTH_SHORT).show();

        }

        else {

            double a = Double.parseDouble(no1.getText().toString());

            double b = Double.parseDouble(no2.getText().toString());

            ans = a * b;

        }

    }

});

```

```

div.setOnClickListener(new View.OnClickListener() {

```

```

@Override

public void onClick(View v) {

    String num1 = no1.getText().toString();

    String num2 = no2.getText().toString();

    if (num1.isEmpty() || num2.isEmpty()) {

        Toast.makeText(getApplicationContext(), "Enter Numbers",
Toast.LENGTH_SHORT).show();

    } else {

        double a = Double.parseDouble(no1.getText().toString());

        double b = Double.parseDouble(no2.getText().toString());

        if (b != 0)

            ans = a / b;

        else

            Toast.makeText(getApplicationContext(), "Enter Valid Numbers",
Toast.LENGTH_SHORT).show();

    }

}

});

equal.setOnClickListener(new View.OnClickListener() {

    @Override

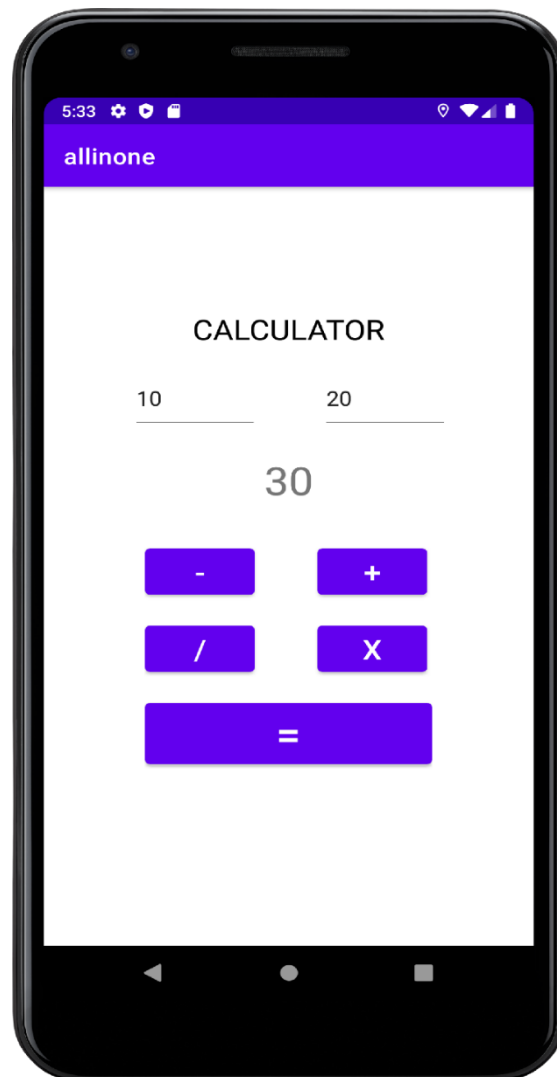
    public void onClick(View v) {

        String ans1 = String.valueOf(ans);

```

```
        answer.setText(ans1);  
  
        ans= 0;  
    }  
  
    });  
  
    }  
  
}
```

**OUTPUT:**



**PROGRAM NO:5**

**Aim:** Implement validations on various UI controls

**XML Code:**

```
<?xml version="1.0" encoding="utf-8"?>

<LinearLayout

    xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:orientation="vertical"

    tools:context=".MainActivity"

    tools:ignore="HardcodedText">

    <EditText

        android:id="@+id/firstName"

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginTop="16dp"

        android:layout_marginEnd="16dp"

        android:hint="First Name"

        android:inputType="text" />
```



<EditText

```
    android:id="@+id/lastName"

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:layout_marginStart="16dp"

    android:layout_marginTop="16dp"

    android:layout_marginEnd="16dp"

    android:hint="Last Name"

    android:inputType="text" />
```

<EditText

```
    android:id="@+id/email"

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:layout_marginStart="16dp"

    android:layout_marginTop="16dp"

    android:layout_marginEnd="16dp"

    android:hint="Email"

    android:inputType="textEmailAddress" />
```

<EditText

```
    android:id="@+id/password"
```

```
android:layout_width="match_parent"

android:layout_height="wrap_content"

android:layout_marginStart="16dp"

android:layout_marginTop="16dp"

android:layout_marginEnd="16dp"

android:hint="Password"

android:inputType="textPassword" />
```

<LinearLayout

```
android:layout_width="match_parent"

android:layout_height="wrap_content"

android:layout_marginTop="8dp"

android:gravity="end"

android:orientation="horizontal">
```

<Button

```
android:id="@+id/cancelButton"

style="@style/Widget.AppCompat.Button.Borderless"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_marginEnd="4dp"

android:text="CANCEL"

android:textColor="@color/white" />
```

```
<Button  
  
    android:id="@+id/proceedButton"  
  
    android:layout_width="wrap_content"  
  
    android:layout_height="wrap_content"  
  
    android:layout_marginEnd="16dp"  
  
    android:backgroundTint="@color/black"  
  
    android:text="PROCEED"  
  
    android:textColor="@android:color/white"  
  
    tools:ignore="ButtonStyle" />
```

```
</LinearLayout>
```

```
</LinearLayout>
```

### **JAVA CODE:**

```
package com.example.validation;  
  
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 {  
  
    Button bCancel, bProceed;  
  
    EditText etFirstName, etLastName, etEmail, etPassword;  
  
    boolean isAllFieldsChecked = false;  
  
    @Override  
  
    protected void onCreate(Bundle savedInstanceState) {  
  
        super.onCreate(savedInstanceState);  
  
        setContentView(R.layout.activity_main);  
  
        bProceed = findViewById(R.id.proceedButton);  
  
        bCancel = findViewById(R.id.cancelButton);  
  
        etFirstName = findViewById(R.id.firstName);  
  
        etLastName = findViewById(R.id.lastName);  
  
        etEmail = findViewById(R.id.email);  
  
        etPassword = findViewById(R.id.password);  
  
        bProceed.setOnClickListener(new View.OnClickListener() {  
  
            @Override  
  
            public void onClick(View v) {
```

```

isAllFieldsChecked = CheckAllFields();

if (isAllFieldsChecked) {

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

    startActivity(i);

}

});

bCancel.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        MainActivity.this.finish();

        System.exit(0);

    }

});

}

private boolean CheckAllFields() {

    if (etFirstName.length() == 0) {

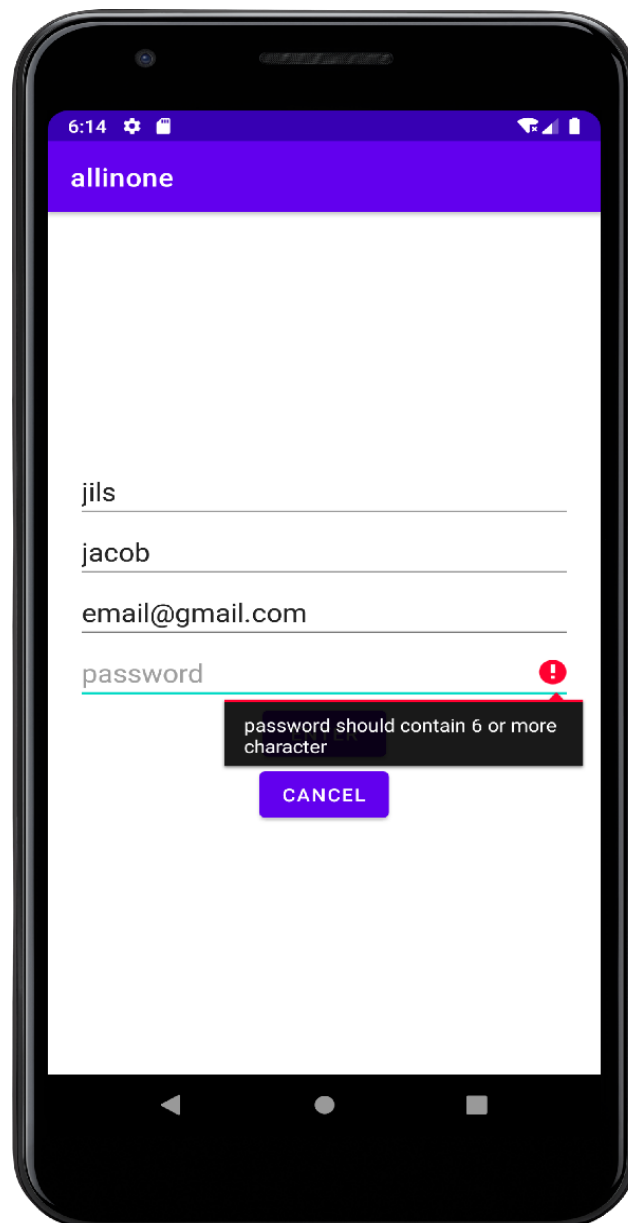
        etFirstName.setError("This field is required");

        return false;

    }

```

```
if (etLastName.length() == 0) {  
    etLastName.setError("This field is required");  
    return false;  
}  
  
if (etEmail.length() == 0) {  
    etEmail.setError("Email is required");  
    return false;  
}  
  
if (etPassword.length() == 0) {  
    etPassword.setError("Password is required");  
    return false;  
} else if (etPassword.length() < 8) {  
    etPassword.setError("Password must be minimum 8 characters");  
    return false;  
}  
  
return true;  
}  
}
```

**OUTPUT:**

**PROGRAM NO:6**

**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
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=".explicit_intent">

    <TextView

        android:id="@+id/textView3"

        android:layout_width="60dp"

        android:layout_height="17dp"

        android:text="Name"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.091"

        app:layout_constraintStart_toStartOf="parent"
```



```
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.222" />
```

<EditText

```
    android:id="@+id/name"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.756"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.215" />
```

<TextView

```
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Email ID"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintHorizontal_bias="0.096"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent"  
app:layout_constraintVertical_bias="0.325" />
```

<EditText

```
android:id="@+id/em"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:ems="10"  
android:inputType="textPersonName"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintHorizontal_bias="0.761"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent"  
app:layout_constraintVertical_bias="0.319" />
```

<TextView

```
android:id="@+id/textView5"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:text="Phone No."
```

```
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintHorizontal_bias="0.09"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent"  
app:layout_constraintVertical_bias="0.435" />
```

<EditText

```
android:id="@+id/ph"  
android:layout_width="wrap_content"  
android:layout_height="wrap_content"  
android:ems="10"  
android:inputType="number"  
app:layout_constraintBottom_toBottomOf="parent"  
app:layout_constraintEnd_toEndOf="parent"  
app:layout_constraintHorizontal_bias="0.761"  
app:layout_constraintStart_toStartOf="parent"  
app:layout_constraintTop_toTopOf="parent"  
app:layout_constraintVertical_bias="0.431" />
```

<Button

```
android:id="@+id/sav"  
android:layout_width="wrap_content"
```

```

android:layout_height="wrap_content"

android:text="SAVE"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.413"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toTopOf="parent"

app:layout_constraintVertical_bias="0.562" />

```

```

<TextView

```

```

    android:id="@+id/textView6"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Enter Your Details"

    android:textSize="25sp"

    android:textStyle="bold"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.464"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.133" />

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

**DISPLAY**

```

<?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=".display">

<TextView

    android:id="@+id/textView2"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Your Details Using Intent"

    android:textStyle="bold"

    android:textSize="20sp"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.498"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.146" />

```

<TextView

```
    android:id="@+id/dis"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:textStyle="italic"

    android:textSize="15sp"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.498"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.233" />
```

<TextView

```
    android:id="@+id/textView3"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Your Details Using Shared Preference"

    android:textSize="20sp"

    android:textStyle="bold"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"
```

```

app:layout_constraintHorizontal_bias="0.771"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.467" />

```

```
<TextView
```

```

    android:id="@+id/dis1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:textSize="15sp"
    android:textStyle="italic"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.527"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintVertical_bias="0.571" />

```

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

### **JAVA CODE:**

```

package com.example.sharedpreference;

import androidx.appcompat.app.ActionBar;

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;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        ActionBar a=getSupportActionBar();

        a.setTitle("Welcome");

        Button sub=findViewById(R.id.sav);

        EditText nam=findViewById(R.id.name);

        EditText email=findViewById(R.id.em);

        EditText phone=findViewById(R.id.ph);

        sub.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

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

                String user= nam.getText().toString();
```



```

        i.putExtra("Name",user);

        String E_mail=email.getText().toString();

        i.putExtra("Email",E_mail);

        String Phones=phone.getText().toString();

        i.putExtra("Phone",Phones);

        startActivity(i);

        SharedPreferences sharedPreferences =
getSharedPreferences("MySharedPref",MODE_PRIVATE);

        SharedPreferences.Editor myEdit = sharedPreferences.edit();

        myEdit.putString("name", nam.getText().toString());

        myEdit.putString("email", email.getText().toString());

        myEdit.putString("phone", phone.getText().toString());

        myEdit.apply();

    }

});

}

}

```

## DISPLAY

```

package com.example.sharedpreference;

import androidx.appcompat.app.ActionBar;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

```

```
import android.content.SharedPreferences;

import android.os.Bundle;

import android.widget.TextView;

public class display extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_display);

        ActionBar a=getSupportActionBar();

        a.setTitle("Display");

        TextView diss=findViewById(R.id.dis);

        TextView diss1=findViewById(R.id.dis1);

        Intent i=getIntent();

        String name=i.getStringExtra("Name");

        String email=i.getStringExtra("Email");

        String phone=i.getStringExtra("Phone");

        diss.setText("Name : "+name+"\nEmail : "+email+"\nPhone : "+phone);

        SharedPreferences sharedPreferences =
getSharedPreferences("MySharedPref",MODE_PRIVATE);

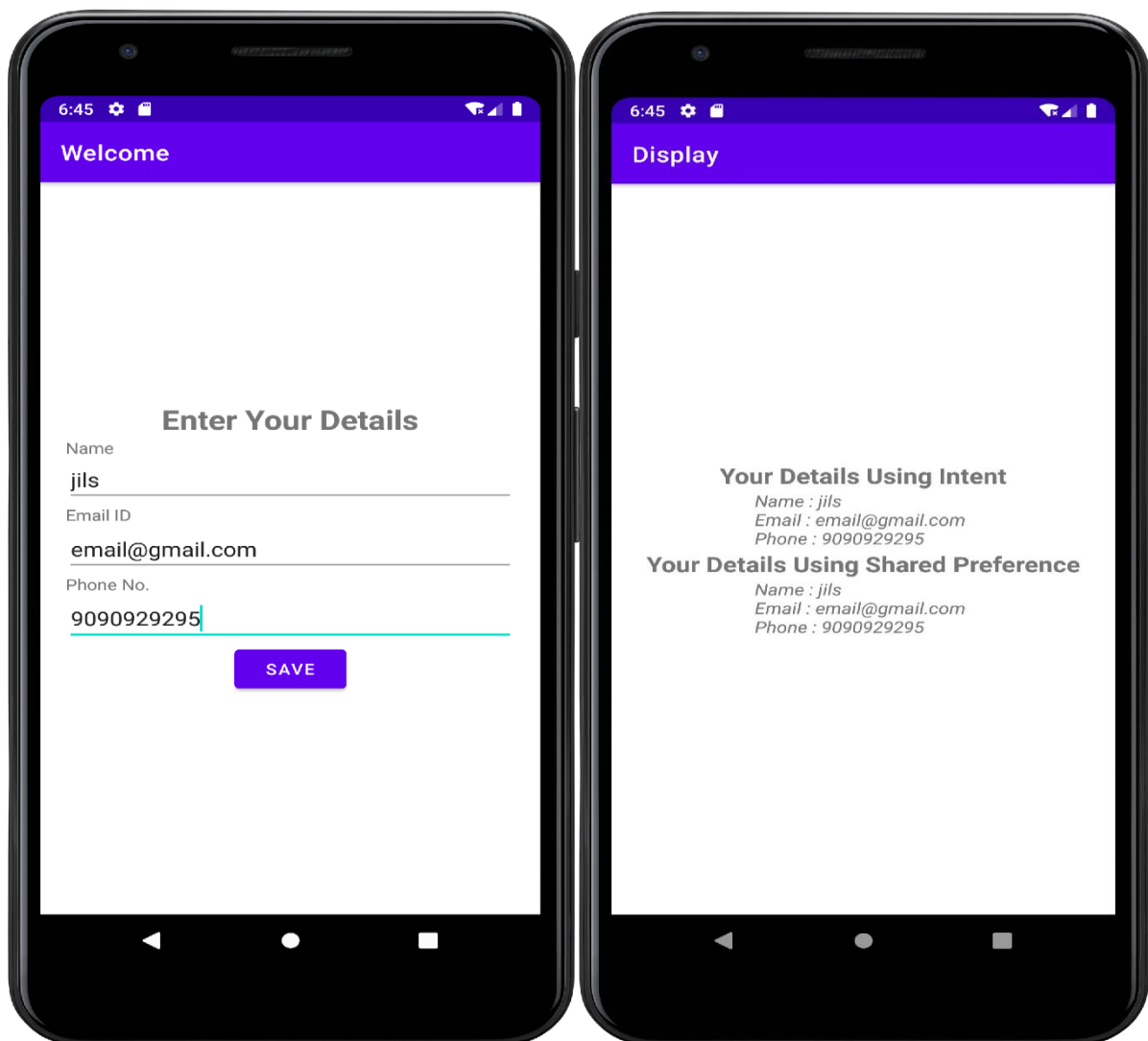
        String Name=sharedPreferences.getString("name","");

        String Email=sharedPreferences.getString("email","");

        String Phone=sharedPreferences.getString("phone","");
```

```
diss1.setText("Name : "+Name+"\nEmail : "+Email+"\nPhone : "+Phone);  
  
}  
  
}
```

## OUTPUT:



**PROGRAM NO:7**

**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:background="#323030"

    android:layout_gravity="bottom"

    android:gravity="bottom"

    android:orientation="vertical"

    tools:context=".MainActivity">

    <LinearLayout

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:orientation="vertical">

        <LinearLayout

            android:layout_width="match_parent"

            android:layout_height="wrap_content"
```

```
android:layout_gravity="end"
```

```
android:orientation="vertical">
```

```
<TextView
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_marginEnd="20dp"
```

```
    android:text="9+10"
```

```
    android:textAlignment="textEnd"
```

```
    android:textColor="@color/white"
```

```
    android:textSize="40dp" />
```

```
<TextView
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_marginEnd="20dp"
```

```
    android:text="=19"
```

```
    android:textAlignment="textEnd"
```

```
    android:textColor="@color/white"
```

```
    android:textSize="40dp" />
```

```
</LinearLayout>
```

<GridLayout

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_margin="10dp"

android:layout\_weight="1"

android:columnCount="4"

android:gravity="bottom"

android:rowCount="4">

<Button

android:id="@+id/b9"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_margin="10dp"

android:background="@drawable/bg\_button"

android:text="9"

android:textColor="@color/white"

android:textSize="25dp" />

<Button

android:id="@+id/b8"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

```
android:layout_margin="10dp"

android:background="@drawable/bg_button"

android:text="8"

android:textColor="@color/white"

android:textSize="25dp" />
```

<Button

```
android:id="@+id/b7"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_margin="10dp"

android:background="@drawable/bg_button"

android:text="7"

android:textColor="@color/white"

android:textSize="25dp" />
```

<Button

```
android:id="@+id/bmult"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_margin="10dp"

android:background="#F86605"

android:text="x"
```

```
android:textColor="@color/white"
```

```
android:textSize="18dp" />
```

```
<Button
```

```
    android:id="@+id/b6"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_margin="10dp"
```

```
    android:background="@drawable/bg_button"
```

```
    android:text="6"
```

```
    android:textColor="@color/white"
```

```
    android:textSize="25dp" />
```

```
<Button
```

```
    android:id="@+id/b5"
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"
```

```
    android:layout_margin="10dp"
```

```
    android:background="@drawable/bg_button"
```

```
    android:text="5"
```

```
    android:textColor="@color/white"
```

```
    android:textSize="25dp" />
```



<Button

```
    android:id="@+id/b4"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_margin="10dp"

    android:background="@drawable/bg_button"

    android:text="4"

    android:textColor="@color/white"

    android:textSize="25dp" />
```

<Button

```
    android:id="@+id/bdiv"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_margin="10dp"

    android:background="#F86605"

    android:text="/"

    android:textColor="@color/white"

    android:textSize="25dp" />
```

<Button

```
    android:id="@+id/b3"

    android:layout_width="wrap_content"
```

```
android:layout_height="wrap_content"

android:layout_margin="10dp"

android:background="@drawable/bg_button"

android:text="3"

android:textColor="@color/white"

android:textSize="25dp" />
```

<Button

```
android:id="@+id/b2"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_margin="10dp"

android:background="@drawable/bg_button"

android:text="2"

android:textColor="@color/white"

android:textSize="25dp" />
```

<Button

```
android:id="@+id/b1"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:layout_margin="10dp"

android:background="@drawable/bg_button"
```

```
android:text="1"  
  
android:textColor="@color/white"  
  
android:textSize="25dp" />
```

<Button

```
android:id="@+id/bminus"  
  
android:layout_width="wrap_content"  
  
android:layout_height="wrap_content"  
  
android:layout_margin="10dp"  
  
android:background="#F86605"  
  
android:text="-"  
  
android:textColor="@color/white"  
  
android:textSize="25dp" />
```

<Button

```
android:id="@+id/b0"  
  
android:layout_width="wrap_content"  
  
android:layout_height="wrap_content"  
  
android:layout_margin="10dp"  
  
android:background="@drawable/bg_button"  
  
android:text="0"  
  
android:textColor="@color/white"  
  
android:textSize="25dp" />
```

<Button

```
    android:id="@+id/b."  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_margin="10dp"  
    android:background="@drawable/bg_button"  
    android:text="."  
    android:textColor="@color/white"  
    android:textSize="25dp" />
```

<Button

```
    android:id="@+id/bequal"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_margin="10dp"  
    android:background="@drawable/bg_button"  
    android:text="="  
    android:textColor="@color/white"  
    android:textSize="25dp" />
```

<Button

```
    android:id="@+id/bplus"  
    android:layout_width="wrap_content"
```

```

        android:layout_height="wrap_content"

        android:layout_margin="10dp"

        android:background="#F86605"

        android:text="+"

        android:textColor="@color/white"

        android:textSize="25dp" />

</GridLayout>

</LinearLayout>

</LinearLayout>

```

### **JAVA CODE:**

```

package com.example.grid_layout;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

    }
}

```

**OUTPUT:**



**PROGRAM NO:8**

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

**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:background="@color/white"

    tools:context=".MainActivity">

    <LinearLayout

        android:layout_width="match_parent"

        android:layout_height="match_parent"

        android:background="#29487D"

        android:gravity="center|top"

        android:orientation="vertical">

    <LinearLayout

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="70dp"

        android:layout_marginBottom="100dp"
```

```
        android:orientation="vertical">

        <TextView

            android:layout_width="wrap_content"

            android:layout_height="wrap_content"

            android:fontFamily="@font/fb"

            android:text="facebook"

            android:textSize="36dp"

            android:padding="10dp"

            android:textColor="@color/white" />

    </LinearLayout>

    <LinearLayout

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:padding="15dp"

        android:orientation="vertical"

        android:layout_margin="20dp">

        <EditText

            android:layout_width="match_parent"

            android:layout_height="wrap_content"

            android:hint="Email or Phone"

            android:layout_marginBottom="30dp"

            android:textColorHint="#594F4F"

            android:background="@drawable/bg_box"/>
```



<EditText

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginBottom="30dp"
    android:background="@drawable/bg_box"
    android:hint="password"
    android:textColorHint="#594F4F"/>
```

<Button

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:text="Log In"
    android:background="@color/design_default_color_primary"
    android:textAllCaps="false"/>
```

</LinearLayout>

<LinearLayout

```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="180dp"
    android:layout_gravity="bottom"
    android:gravity="center">
```

```
<TextView  
  
    android:layout_width="wrap_content"  
  
    android:layout_height="wrap_content"  
  
    android:gravity="end"  
  
    android:textStyle="bold"  
  
    android:textColor="@color/white"  
  
    android:layout_marginRight="75dp"  
  
    android:layout_weight="50"  
  
    android:text="SignUp for Facebook"/>
```

```
<TextView  
  
    android:layout_width="wrap_content"  
  
    android:layout_height="wrap_content"  
  
    android:gravity="end"  
  
    android:textColor="@color/white"  
  
    android:layout_marginEnd="50dp"  
  
    android:layout_weight="1"  
  
    android:textStyle="bold"  
  
    android:text="?" />
```

```
</LinearLayout>
```

```
</LinearLayout>
```

```
</LinearLayout>
```

**JAVA CODE:**

```
package com.example.facebook;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

public class MainActivity extends AppCompatActivity

{ @Override

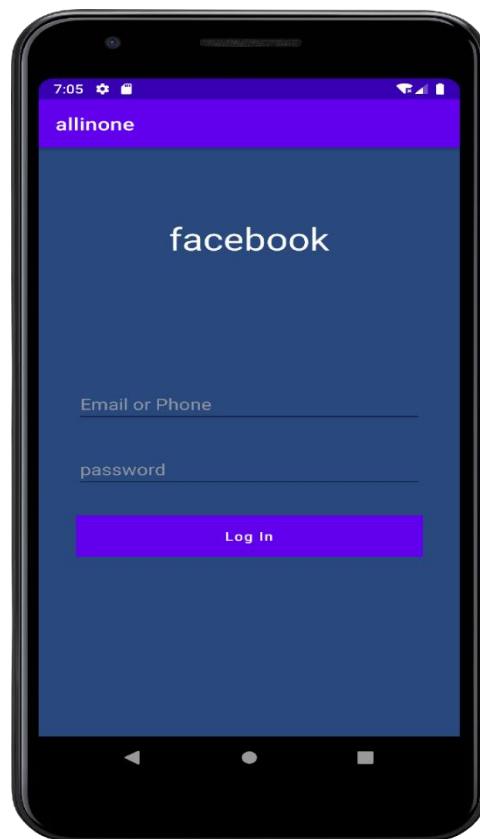
    protected void onCreate(Bundle savedInstanceState)

{    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    getSupportActionBar().hide();

}}
```

**OUTPUT:**

**PROGRAM NO:9**

**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:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:layout_gravity="center"

    android:background="@color/teal_700"

    tools:context=".MainActivity">

    <ImageView

        android:id="@+id/image2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_gravity="center"

        android:src="@drawable/image2"

        android:visibility="gone"/>

    <ImageView

        android:id="@+id/image1"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
```

```

        android:layout_gravity="center"

        android:src="@drawable/image1"/>
</FrameLayout>

```

### **JAVA CODE:**

```

package com.example.frame_layout;

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);

    }

    public void onClick(View v)

    { int id=v.getId();

        switch (id){

```

```
case R.id.image1:

    img1.setVisibility(View.GONE);

    img2.setVisibility(View.VISIBLE);

    break;

case R.id.image2:

    img1.setVisibility(View.VISIBLE);

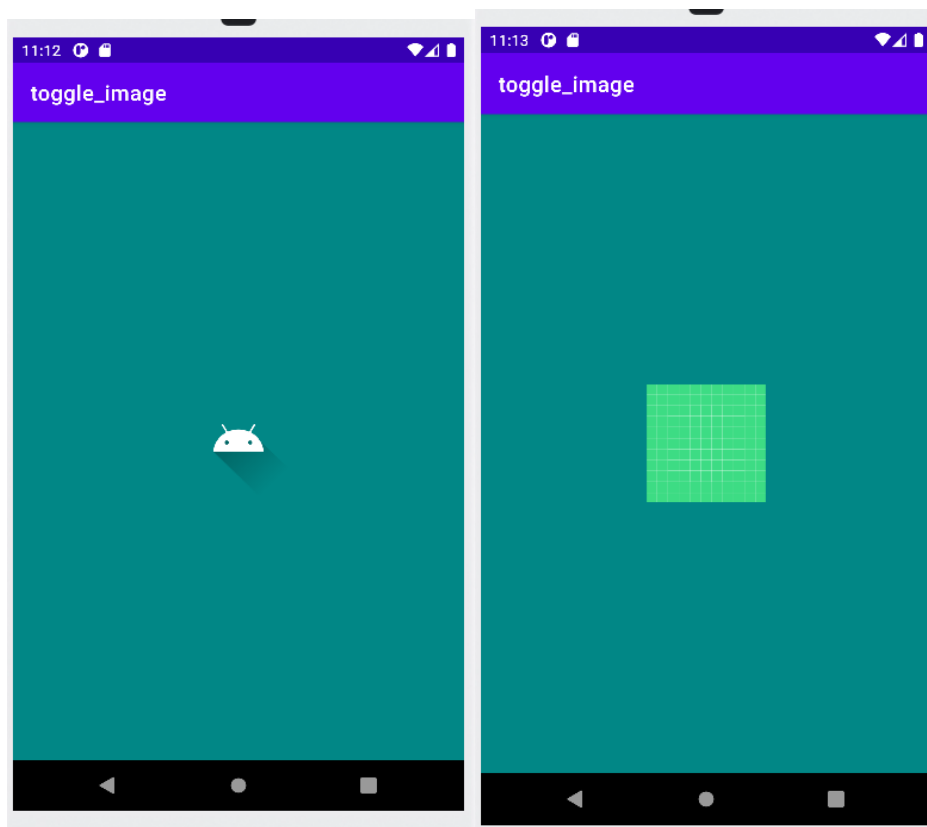
    img2.setVisibility(View.GONE);

    break;

}

}

}
```

**OUTPUT:**

**PROGRAM NO:10**

**Aim:** Implement Adapters and perform exception handling

**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">

    <ListView

        android:layout_width="409dp"

        android:layout_height="354dp"

        tools:layout_editor_absoluteX="1dp"

        tools:layout_editor_absoluteY="1dp"

        android:id="@+id/list1"/>

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

**JAVA CODE:**

```
package com.example.myadapter;

import androidx.appcompat.app.AppCompatActivity;
```

```
import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.AdapterView.OnItemClickListener;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity implements
AdapterView.OnItemClickListener {

    ListView l1;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        String[] cars = {"BMW", "BENZ", "AUDI"};

        try {

            ArrayAdapter<String> adapter = new ArrayAdapter<String>(this,
R.layout.support_simple_spinner_dropdown_item, cars);

            l1.setAdapter(adapter);

            l1.setOnItemClickListener(this);

        }

        catch (Exception e)

        {
```



```

        Toast.makeText(this,e.getMessage(),Toast.LENGTH_SHORT).show();

    }

}

@Override

public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {

    TextView tem=(TextView) view;

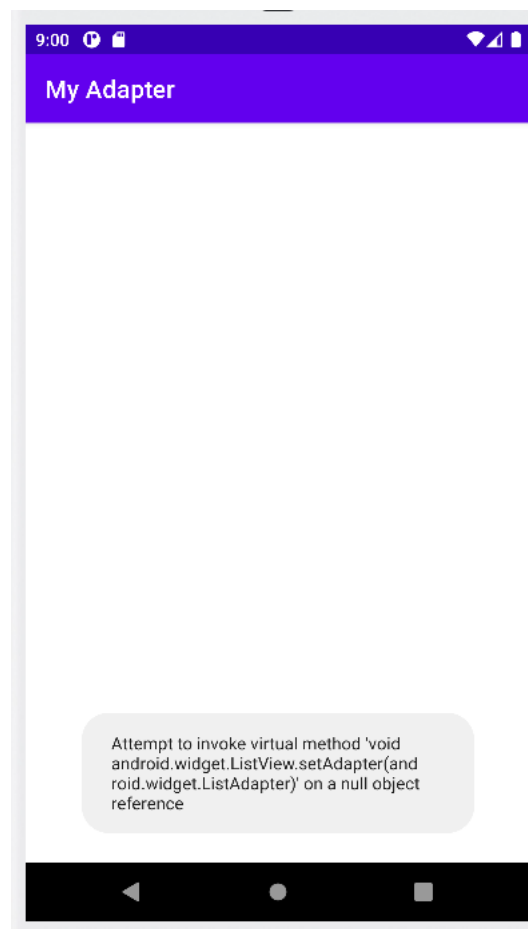
    Toast.makeText(this, tem.getText(), Toast.LENGTH_LONG).show();

}

}

```

### OUTPUT:



**PROGRAM NO:11**

**Aim:** Implement Intent to navigate between multiple activities (Explicit Intent)

**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"

    android:onClick="callActivity"

    tools:context=".MainActivity">

    <EditText

        android:id="@+id/name"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:ems="10"

        android:hint="Name"

        android:inputType="textPersonName"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"
```

```

app:layout_constraintHorizontal_bias="0.437"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.148" />

```

<EditText

```

android:id="@+id/address"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

android:ems="10"

android:hint="Address"

android:inputType="textPersonName"

app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintEnd_toEndOf="parent"
app:layout_constraintHorizontal_bias="0.437"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.313" />

```

<EditText

```

android:id="@+id/email"

android:layout_width="wrap_content"

android:layout_height="wrap_content"

```

```

android:ems="10"

android:hint="Email"

android:inputType="textPersonName"

android:onClick="callActivity"

app:layout_constraintBottom_toBottomOf="parent"

app:layout_constraintEnd_toEndOf="parent"

app:layout_constraintHorizontal_bias="0.437"

app:layout_constraintStart_toStartOf="parent"

app:layout_constraintTop_toTopOf="parent"

app:layout_constraintVertical_bias="0.475" />

```

```
<Button
```

```

    android:id="@+id/button"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Submit"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.454"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.609" />

```

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

## Activity2

```

<?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">

    <TextView

        android:id="@+id/view3"

        android:layout_width="189dp"

        android:layout_height="36dp"

        android:textAlignment="center"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintHorizontal_bias="0.459"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:layout_constraintVertical_bias="0.398" />

```

<TextView

```
    android:id="@+id/view1"

    android:layout_width="189dp"

    android:layout_height="36dp"

    android:textAlignment="center"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.459"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.22" />
```

<TextView

```
    android:id="@+id/view2"

    android:layout_width="189dp"

    android:layout_height="36dp"

    android:textAlignment="center"

    app:layout_constraintBottom_toBottomOf="parent"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintHorizontal_bias="0.459"

    app:layout_constraintStart_toStartOf="parent"

    app:layout_constraintTop_toTopOf="parent"

    app:layout_constraintVertical_bias="0.306" />
```

</androidx.constraintlayout.widget.ConstraintLayout>

**JAVA CODE:**

```
package com.example.co_q3;

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 {

    Button b1;


    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);


        b1 = findViewById(R.id.button);

        b1.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                callActivity(view);
```

```

    }

    });

}

public void callActivity(View view) {

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

    final EditText editText1 = (EditText)findViewById(R.id.name);

    String msg = editText1.getText().toString();

    final EditText editText2 = (EditText)findViewById(R.id.address);

    String add = editText2.getText().toString();

    final EditText editText3 = (EditText)findViewById(R.id.email);

    String em = editText3.getText().toString();

    i.putExtra("Value1", msg);

    i.putExtra("Value2", add);

    i.putExtra("Value3", em);

    startActivity(i);

}

}

```

## Activity 2

```

package com.example.co_q3;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

```



```
import android.widget.TextView;

public class MainActivity2 extends AppCompatActivity {

    TextView view1;

    TextView view2;

    TextView view3;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main2);

        view1 = (TextView) findViewById(R.id.view1);

        view2 = (TextView) findViewById(R.id.view2);

        view3 = (TextView) findViewById(R.id.view3);

        Bundle extras = getIntent().getExtras();

        String value1 = extras.getString("Value1");

        String value2 = extras.getString("Value2");

        String value3 = extras.getString("Value3");

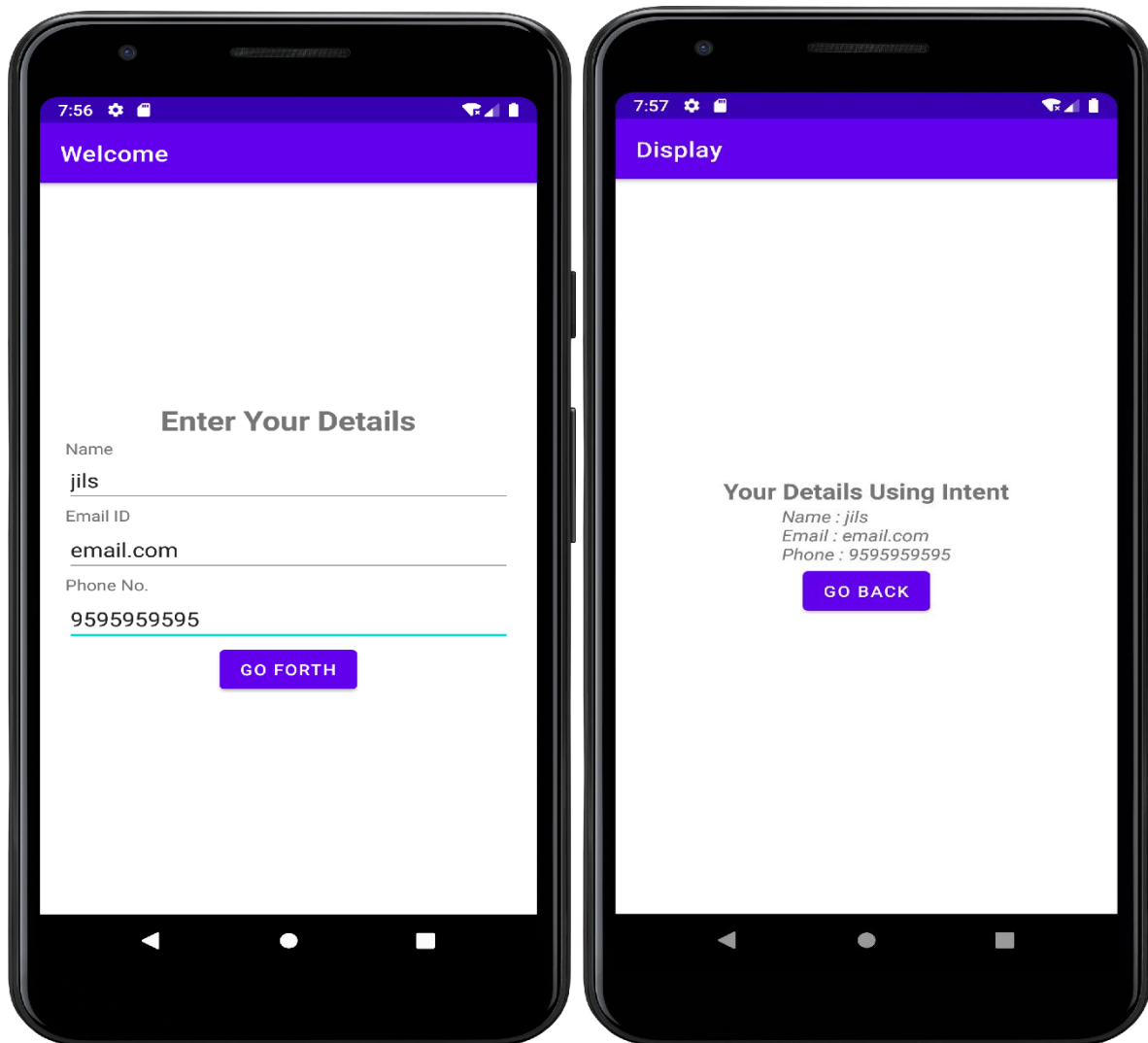
        view1.setText(value1);

        view2.setText(value2);

        view3.setText(value3);

    }

}
```

**OUTPUT:**

**PROGRAM NO:12**

**Aim:** Develop an application that works with Implicit intents

**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/cm"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="CLICK ME"

        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.myapplication;

import androidx.appcompat.app.ActionBar;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.net.Uri;

import android.net.UrlQuerySanitizer;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;


public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        ActionBar b=getSupportActionBar();

        b.setTitle("Go To Browser");

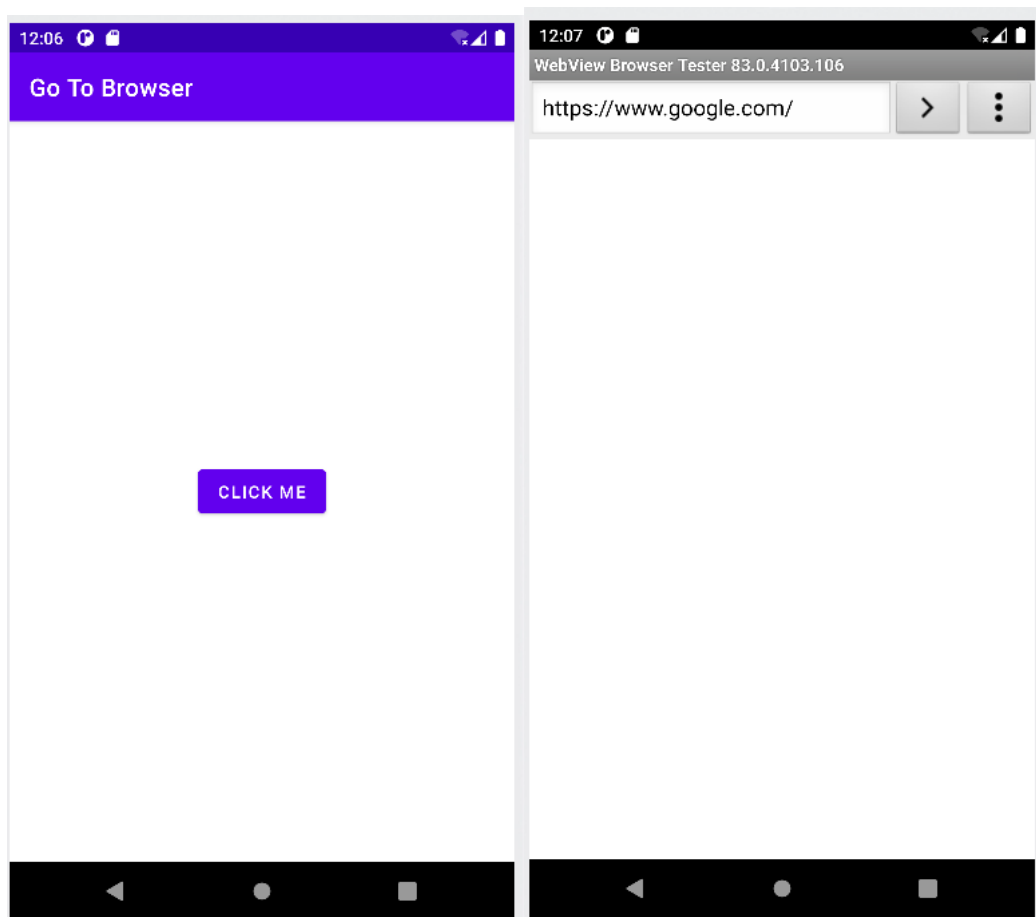
        Button click=findViewById(R.id.cm);

        click.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {
```

```
Intent j=new Intent(Intent.ACTION_VIEW,  
Uri.parse("https://www.google.com/"));  
  
startActivity(j);  
  
}  
  
});  
  
}  
  
}
```

**OUTPUT:**

**PROGRAM NO:13**

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

**XML Code:**

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android">
    <item android:id="@+id/item1" android:title="about"
android:icon="@drawable/download"/>
    <item android:id="@+id/item2" android:title="help"/>
</menu>
```

Activitymain.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_constraintLeft_toLeftOf="parent"
```

```

        app:layout_constraintRight_toRightOf="parent"

        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

### **JAVA CODE:**

```

package com.example.myapplication;

import androidx.appcompat.app.AppCompatActivity;

import android.annotation.SuppressLint;

import android.os.Bundle;

import android.view.Menu;

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) {

        getMenuInflater().inflate(R.menu.menuu, menu);

        return true;

    }

```

```

@Override

public boolean onOptionsItemSelected(MenuItem item){

    switch (item.getItemId()){

        case R.id.item1:

            Toast.makeText(getApplicationContext(), "about",
Toast.LENGTH_SHORT).show();

            return true;

        case R.id.item2:

            Toast.makeText(getApplicationContext(), "help",
Toast.LENGTH_SHORT).show();

            return true;

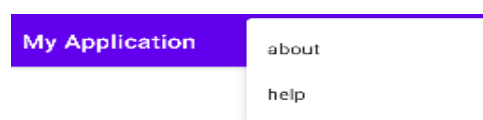
        default:

            return super.onOptionsItemSelected(item);

    }
}

```

### OUTPUT:



Hello World!



**PROGRAM NO:14**

**Aim:** Develop an application that uses ArrayAdapter with ListView

**XML Code:**

```
<?xml version="1.0" encoding="utf-8"?>

<androidx.constraintlayout.widget.ConstraintLayout

    xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    xmlns:app="http://schemas.android.com/apk/res-auto"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    tools:context=".MainActivity">

    <ListView

        android:id="@+id/mobile_list"

        android:layout_width="match_parent"

        android:layout_height="wrap_content" >

    </ListView>

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

**JAVA CODE:**

```
package com.example.adapter;

import androidx.appcompat.app.AppCompatActivity;
```

```

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.AdapterView.OnItemClickListener;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import android.widget.TextView;

import android.widget.Toast;

public class MainActivity extends AppCompatActivity implements
    AdapterView.OnItemClickListener {

    ListView l;

    String[]
    days={"Sunday","Monday","Tuesday","Wednesday","Thursday","Friday","Saturday"};

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        l=findViewById(R.id.mobile_list);

        ArrayAdapter<String> adapter= new
        ArrayAdapter<String>(this,R.layout.support_simple_spinner_dropdown_item,days);

        l.setAdapter(adapter);

        l.setOnItemClickListener(this);

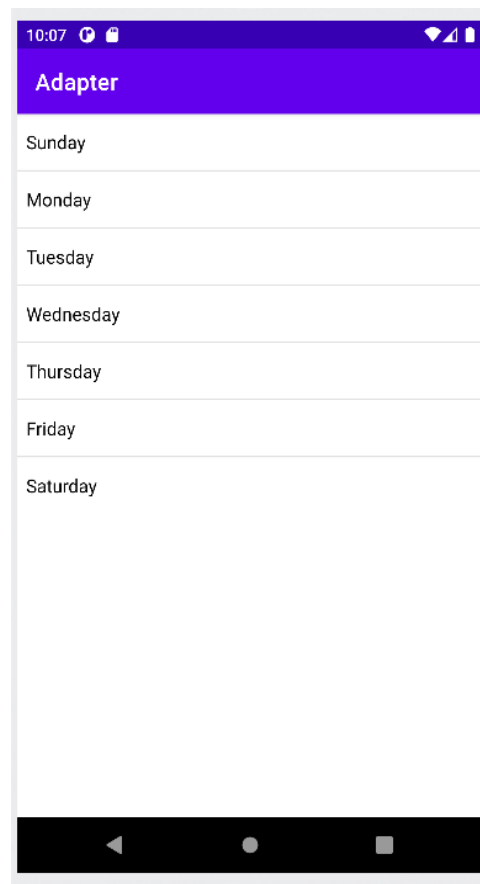
    }

    @Override

    public void onItemClick(AdapterView<?> adapterView, View view, int i, long l) {

```

```
TextView temp=(TextView) view;  
  
Toast.makeText(this,"You  
clicked"+temp.getText()+"at"+i,Toast.LENGTH_LONG).show();  
  
}  
  
}
```

**OUTPUT:**

**PROGRAM NO:15**

**Aim:** Develop an application that use GridView with images and display Alert box on selection

**XML Code:**

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    xmlns:tools="http://schemas.android.com/tools"
```

```
    android:layout_width="match_parent"
```

```
    android:layout_height="match_parent"
```

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

```
    <GridView
```

```
        android:numColumns="auto_fit"
```

```
        android:gravity="center"
```

```
        android:columnWidth="100dp"
```

```
        android:stretchMode="columnWidth"
```

```
        android:layout_width="fill_parent"
```

```
        android:layout_height="fill_parent"
```

```
        android:id="@+id/grid"/>
```

```
</LinearLayout>
```

```
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
```

```
    xmlns:tools="http://schemas.android.com/tools"
```

```
    android:layout_width="wrap_content"
```

```

        android:layout_height="wrap_content"

        android:padding="5dp" >

<ImageView

        android:id="@+id/grid_image"

        android:layout_width="50dp"

        android:layout_height="50dp">

</ImageView>

<TextView

        android:id="@+id/grid_text"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="15dp"

        android:textSize="9sp" >

</TextView>

</LinearLayout>

```

### **JAVA CODE:**

```

package com.example.gridview_image_text_example;

import android.content.Context;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

import android.widget.BaseAdapter;

import android.widget.ImageView;

```

```
import android.widget.TextView;

public class CustomGrid extends BaseAdapter{

    private Context mContext;

    private final String[] web;

    private final int[] Imageid;

    public CustomGrid(Context c,String[] web,int[] Imageid ) {

        mContext = c;

        this.Imageid = Imageid;

        this.web = web;

    }

    @Override

    public int getCount() {

        // TODO Auto-generated method stub

        return web.length;

    }

    @Override

    public Object getItem(int position) {

        // TODO Auto-generated method stub

        return null;

    }

    @Override

    public long getItemId(int position) {

        return 0;

    }

}
```

```

    }

    @Override

    public View getView(int position, View convertView, ViewGroup parent) {

        View grid;

        LayoutInflater inflater = (LayoutInflater) mContext

            .getSystemService(Context.LAYOUT_INFLATER_SERVICE);

        if (convertView == null) {

            grid = new View(mContext);

            grid = inflater.inflate(R.layout.grid_single, null);

            TextView textView = (TextView) grid.findViewById(R.id.grid_text);

            ImageView imageView = (ImageView) grid.findViewById(R.id.grid_image);

            textView.setText(web[position]);

            imageView.setImageResource(Imageid[position]);

        } else {

            grid = (View) convertView;

        }

        return grid;

    }

}

package com.example.gridview_image_text_example;

import android.os.Bundle;

import android.app.Activity;

```

```
import android.view.View;

import android.widget.AdapterView;

import android.widget.GridView;

import android.widget.Toast;

public class MainActivity extends Activity {

    GridView grid;

    String[] web = {

        "Google",

        "Github",

        "Instagram",

        "Facebook",

        "Twitter",

        "WordPress",

        "Youtube",

        "Whatsapp",

        "Blogger"

    } ;

    int[] imageId = {

        R.drawable.image1,

        R.drawable.image2,

        R.drawable.image3,

        R.drawable.image4,

        R.drawable.image5,
```



```

        R.drawable.image6,

        R.drawable.image7,

        R.drawable.image8,

        R.drawable.image9,

    };

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        CustomGrid adapter = new CustomGrid(MainActivity.this, web, imageId);

        grid=(GridView)findViewById(R.id.grid);

        grid.setAdapter(adapter);

        grid.setOnItemClickListener(new AdapterView.OnItemClickListener() {

            @Override

            public void onItemClick(AdapterView<?> parent, View view,

                                    int position, long id) {

                Toast.makeText(MainActivity.this, "You Clicked at " +web[+ position],

                Toast.LENGTH_SHORT).show();

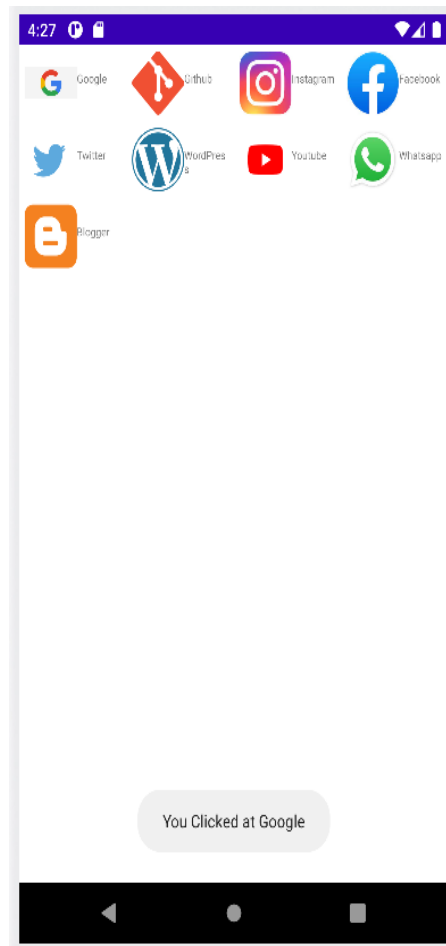
            }

        });

    }

}

```

**OUTPUT:**

**PROGRAM NO:16**

**Aim:** Develop an application that implements Spinner component and perform event handling

**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">

    <Spinner

        android:id="@+id/spinner"

        android:layout_height="50dp"

        android:layout_width="160dp"

        android:layout_marginEnd="10dp"

        android:layout_marginStart="10dp"

        android:layout_marginBottom="10dp" android:layout_marginTop="10dp"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"/>

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

**JAVA CODE:**

```
package com.example.spinner;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.AdapterView;

import android.widget.AdapterView.OnItemClickListener;

import android.widget.ArrayAdapter;

import android.widget.Spinner;

import android.widget.Toast;


public class MainActivity extends AppCompatActivity implements
    AdapterView.OnItemClickListener {

    String[] country = { "India", "USA", "China", "Japan", "Other"};

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        Spinner spin = (Spinner) findViewById(R.id.spinner);

        spin.setOnItemClickListener(this);

        ArrayAdapter aa = new
        ArrayAdapter(this,android.R.layout.simple_spinner_item,country);

        aa.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
```

```

        spin.setAdapter(aa);

    }

    @Override

    public void onItemClick(AdapterView<?> arg0, View arg1, int position, long id) {

        Toast.makeText(getApplicationContext(),country[position] ,
Toast.LENGTH_LONG).show();

    }

    @Override

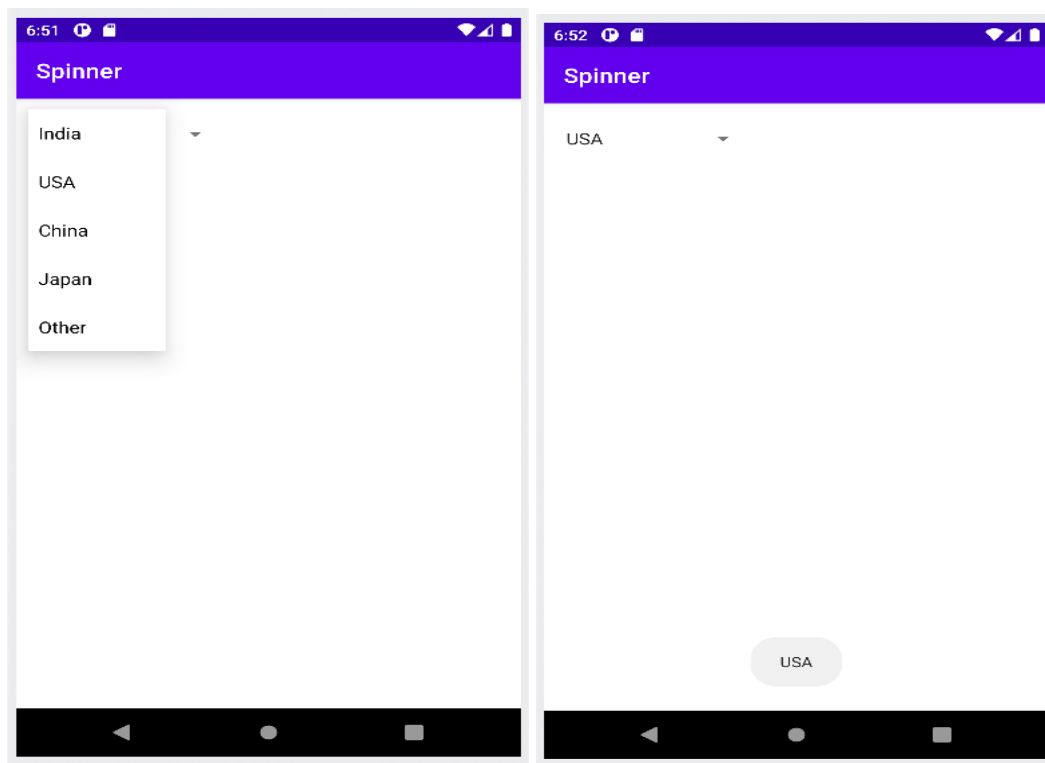
    public void onNothingSelected(AdapterView<?> arg0) {

    }

}

```

### OUTPUT:



**PROGRAM NO:17**

**Aim:** Apply themes via code and manifest file

**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">

    <EditText

        android:id="@+id/editTextTextPersonName"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:ems="10"

        android:inputType="textPersonName"

        android:text="Name"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        tools:layout_editor_absoluteX="100dp" />
```

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

<?xml version="1.0" encoding="utf-8"?>

<manifest xmlns:android="http://schemas.android.com/apk/res/android"

    package="com.example.themes">

    <application

        android:allowBackup="true"

        android:icon="@mipmap/ic_launcher"

        android:label="@string/app_name"

        android:roundIcon="@mipmap/ic_launcher_round"

        android:supportsRtl="true"

        android:theme="@style/Theme.newstyle">

        <activity

            android:name=".MainActivity"

            android:exported="true">

            <intent-filter>

                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

    </application>
```

```

</manifest>

<?xml version="1.0" encoding="utf-8"?>

<resources>

    <color name="teal">#FF018786</color>

    <color name="black">#FF000000</color>

    <color name="yellow">#EC971B</color>

    <color name="red">#F80F0F</color>

</resources>

<resources xmlns:tools="http://schemas.android.com/tools">

    <!-- Base application theme. -->

    <style name="Theme.newstyle"
parent="Theme.MaterialComponents.DayNight.DarkActionBar">

        <item name="colorPrimary">@color/black</item>

        <item name="colorPrimaryDark">@color/yellow</item>

        <item name="colorAccent">@color/teal</item>

        <item name="android:textColorPrimary">@color/red</item>

    </style>

</resources>

```

### **JAVA CODE:**

```

package com.example.themes;

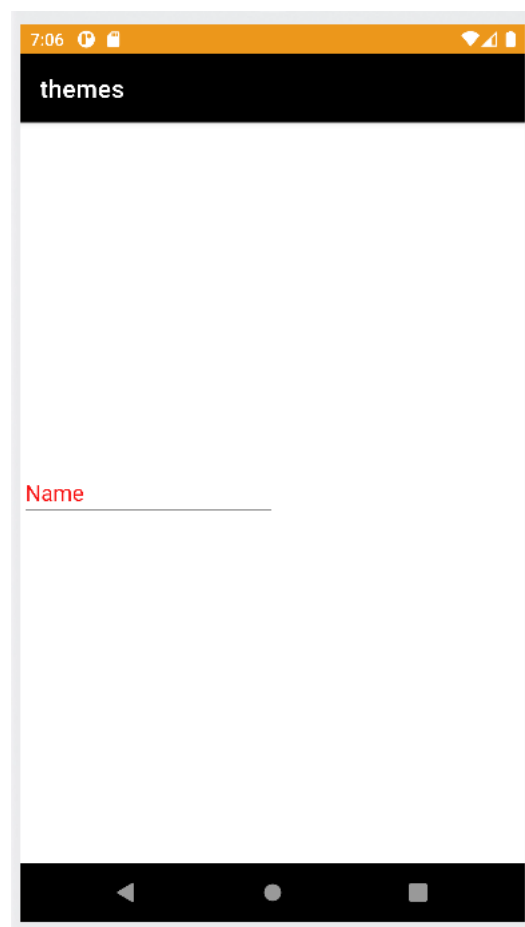
import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

```



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

**OUTPUT:**

**PROGRAM NO:18**

**Aim:** Develop application using Fragments

**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">

    <RelativeLayout

        android:layout_width="match_parent"

        android:layout_height="0dp"

        android:layout_weight="1">

        <Button

            android:id="@+id/b1"

            android:layout_width="160dp"

            android:layout_height="50dp"

            android:layout_alignParentBottom="true"
```

```
android:layout_marginStart="30dp"  
android:layout_marginBottom="30dp"  
android:backgroundTint="#2196F3"  
android:text="Fragment1" />
```

<Button

```
android:id="@+id/b2"  
android:layout_width="160dp"  
android:layout_height="50dp"  
android:layout_alignParentRight="true"  
android:layout_alignParentBottom="true"  
android:layout_marginStart="30dp"  
android:layout_marginBottom="30dp"  
android:backgroundTint="#FFC107"  
android:text="Fragment2" />
```

</RelativeLayout>

<FrameLayout

```
android:id="@+id/frameLayout"  
android:layout_width="match_parent"  
android:layout_height="0dp"  
android:layout_weight="4"  
android:background="@color/purple_200"/>
```

</LinearLayout>

```

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:background="@color/teal_200"

    tools:context=".Fragment1">

    <TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_centerInParent="true"

        android:background="#FFEB3B"

        android:text="Fragment1"

        android:textSize="30dp" />

    </RelativeLayout>

<?xml version="1.0" encoding="utf-8"?>

<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"

    xmlns:tools="http://schemas.android.com/tools"

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    android:background="#FFEB3B"

    tools:context=".Fragment2">

```

```

<TextView

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_centerInParent="true"

    android:background="#FAA3C1"

    android:text="Fragment2"

    android:textSize="30dp" />

</RelativeLayout>

```

### **JAVA CODE:**

```

package com.example.fragment;

import androidx.appcompat.app.AppCompatActivity;

import androidx.fragment.app.Fragment;

import androidx.fragment.app.FragmentManager;

import androidx.fragment.app.FragmentTransaction;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

public class MainActivity extends AppCompatActivity {

    Button b1,b2;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

```

```

super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);

b1=findViewById(R.id.b1);

b2=findViewById(R.id.b2);

b1.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        replaceFragment(new Fragment1());

    }

});

b2.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        replaceFragment(new Fragment2());

    }

});

}

private void replaceFragment(Fragment fragment) {

    FragmentManager fragmentManager=getSupportFragmentManager();

    FragmentTransaction fragmentTransaction=fragmentManager.beginTransaction();

    fragmentTransaction.replace(R.id.frameLayout,fragment);

    fragmentTransaction.commit();

}}

```

```

package com.example.fragment;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class Fragment1 extends Fragment {

    @Override

    public View onCreateView(LayoutInflater inflater, ViewGroup container,

                             Bundle savedInstanceState) {

        // Inflate the layout for this fragment

        return inflater.inflate(R.layout.fragment_1, container, false);

    }

}

```

```

package com.example.fragment;

import android.os.Bundle;

import androidx.fragment.app.Fragment;

import android.view.LayoutInflater;

import android.view.View;

import android.view.ViewGroup;

public class Fragment2 extends Fragment {

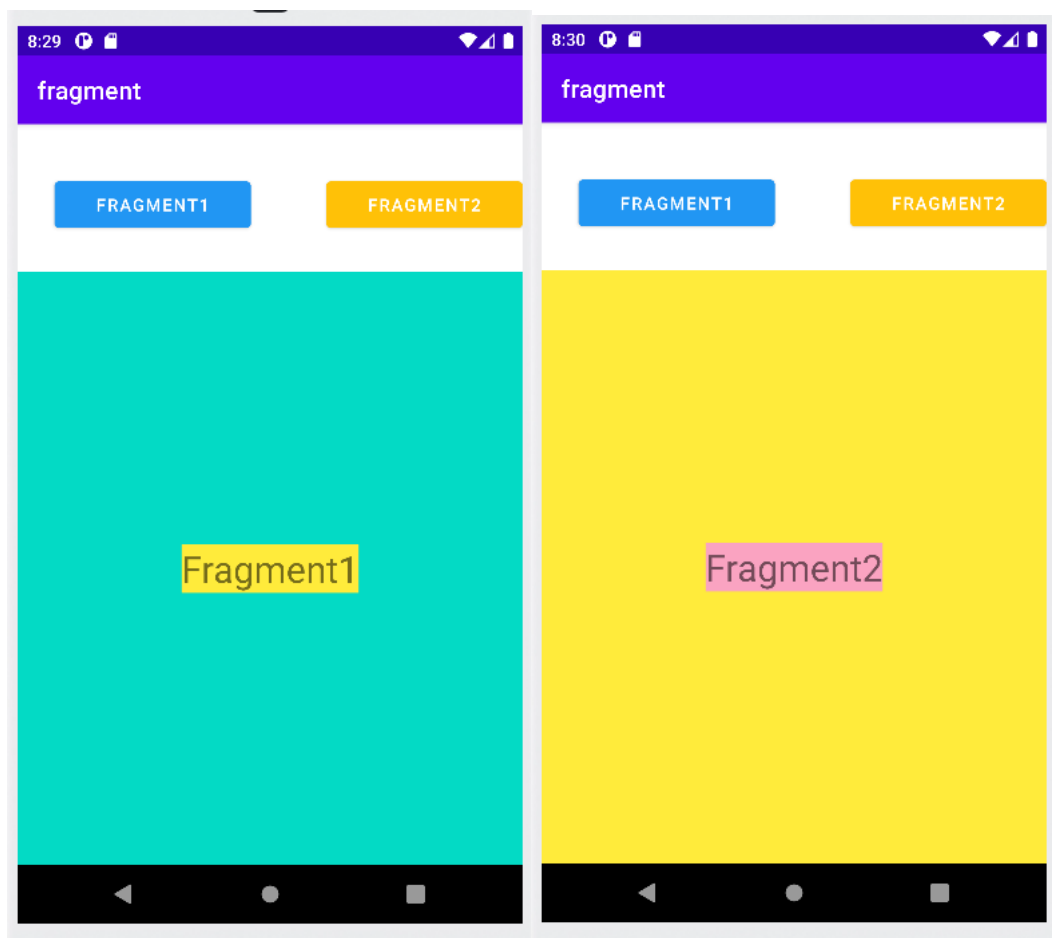
    @Override

    public View onCreateView(LayoutInflater inflater, ViewGroup container,

```

```
Bundle savedInstanceState) {  
  
    return inflater.inflate(R.layout.fragment_2, container, false);  
  
}
```

### OUTPUT:





**PROGRAM NO:19**

**Aim:** Implement Navigation drawer

**XML Code:**

```
<?xml version="1.0" encoding="utf-8"?>

<androidx.drawerlayout.widget.DrawerLayout

    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"

    android:id="@+id/drawer">

    <LinearLayout

        android:layout_width="match_parent"

        android:layout_height="match_parent">

        <TextView

            android:layout_width="match_parent"

            android:layout_height="match_parent"

            android:text="Welcome"

            android:textSize="30dp">

        </TextView>

    </LinearLayout>
```

```

<com.google.android.material.navigation.NavigationView

    android:layout_width="match_parent"

    android:layout_height="match_parent"

    app:menu="@menu/menu"

    android:id="@+id/navigation_view"

    android:layout_gravity="start">

</com.google.android.material.navigation.NavigationView>

</androidx.drawerlayout.widget.DrawerLayout>

<?xml version="1.0" encoding="utf-8"?>

<menu xmlns:android="http://schemas.android.com/apk/res/android">

    <item

        android:id="@+id/account"

        android:title="My account"/>

    <item

        android:id="@+id/profile"

        android:title="My profile"/>

    <item

        android:id="@+id/logout"

        android:title="log out"/>

</menu>

```

**JAVA CODE:**

```

package com.example.navigation;

import androidx.annotation.NonNull;

import androidx.appcompat.app.ActionBarDrawerToggle;

import androidx.appcompat.app.AppCompatActivity;

import androidx.drawerlayout.widget.DrawerLayout;

import android.os.Bundle;

import android.view.MenuItem;

import android.widget.Toast;

import com.google.android.material.navigation.NavigationView;

public class MainActivity extends AppCompatActivity implements

    NavigationView.OnNavigationItemSelectedListener {

    public DrawerLayout drawerLayout;

    public ActionBarDrawerToggle actionBarDrawerToggle;

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        drawerLayout = findViewById(R.id.drawer);

        actionBarDrawerToggle = new ActionBarDrawerToggle(this,drawerLayout,

R.string.nav_open, R.string.nav_close);

        drawerLayout.addDrawerListener(actionBarDrawerToggle);

        actionBarDrawerToggle.syncState();

```

```

getSupportActionBar().setDisplayHomeAsUpEnabled(true);

NavigationView navigationView = findViewById(R.id.navigation_view);

navigationView.setNavigationItemSelectedListener(this);

}

@Override

public boolean onOptionsItemSelected(@NonNull MenuItem item) {

    if (actionBarDrawerToggle.onOptionsItemSelected(item)){

        return true;

    }

    return super.onOptionsItemSelected(item);

}

@Override

public boolean onNavigationItemSelected(@NonNull MenuItem item) {

    int id=item.getItemId();

    if(id == R.id.account){

        Toast.makeText(this, "Home Page", Toast.LENGTH_SHORT).show();

    }

    if(id == R.id.profile){

        Toast.makeText(this, "Settings Page",

            Toast.LENGTH_SHORT).show();

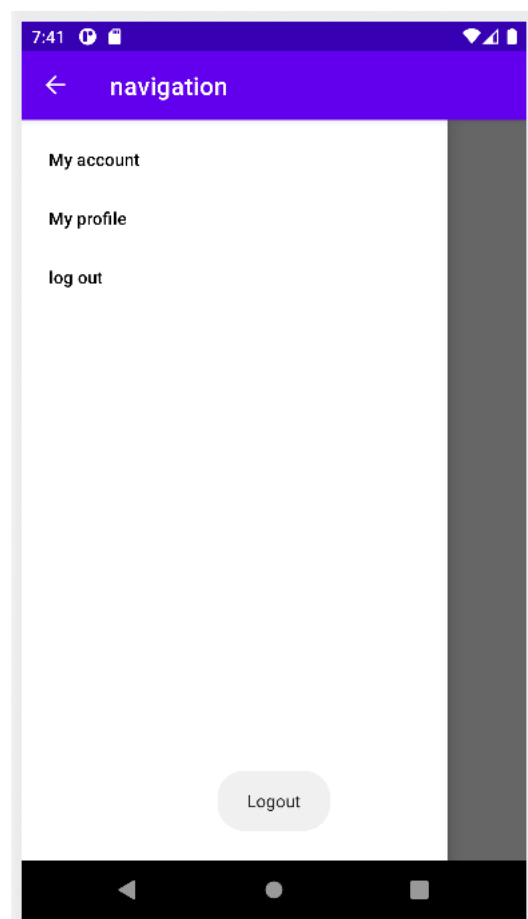
    }

    if(id == R.id.logout){

        Toast.makeText(this, "Logout", Toast.LENGTH_SHORT).show();

```

```
    }  
    return false;  
  }  
}
```

**OUTPUT:**

**PROGRAM NO:20**

**Aim :** Program to implement various SQLite operations : (INSERT, UPDATE, DELETE, SELECT)

**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"

    tools:context=".MainActivity"

    android:orientation="vertical"

    android:gravity="start"

    android:padding="20dp">

    <TextView

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:text="First name"

        android:textSize="20dp"/>

    <EditText

        android:layout_width="match_parent"

        android:layout_height="wrap_content"

        android:id="@+id/fname" />
```

<TextView

```
    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Last name"

    android:textSize="20dp"/>
```

<EditText

```
    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:id="@+id/lname" />
```

<LinearLayout

```
    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:orientation="horizontal">
```

<Button

```
    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:id="@+id/insert"

    android:text="Insert"

    android:layout_marginRight="3dp"/>
```

<Button

```
    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:id="@+id/view"
```

```
        android:text="view"

        android:layout_marginRight="3dp"/>

<Button

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:id="@+id/update"

    android:text="update"

    android:layout_marginRight="3dp"/>

<Button

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:id="@+id/delete"

    android:text="delete"/>

</LinearLayout>

<TextView

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Id to update only"

    android:textSize="20dp"/>

<EditText

    android:layout_width="match_parent"

    android:layout_height="wrap_content"

    android:id="@+id/ids" />
```



```

<TextView

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:text="Datas"

    android:id="@+id/display"

    android:textSize="20dp"/>

</LinearLayout>

```

### **JAVA CODE:**

```

package com.example.database;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

    TextView display1;

    EditText fname1,lname1,id;

    Button insert,update,view,delete;

    databasesess db1=new databasesess(this);

```

@Override

```
protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);

    display1=findViewById(R.id.display);

    fname1=findViewById(R.id.fname);

    lname1=findViewById(R.id.lname);

    id=findViewById(R.id.ids);

    insert=findViewById(R.id.insert);

    update=findViewById(R.id.update);

    view=findViewById(R.id.view);

    delete=findViewById(R.id.delete);

    insert.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View v) {

            String sfname = fname1.getText().toString();

            String slname = lname1.getText().toString();

            db1.insertuserdata(sfname,slname);

            fname1.setText("");

            lname1.setText("");

        }

    });
```

```

update.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        String sfname = fname1.getText().toString();

        String slname = lname1.getText().toString();

        String sid = id.getText().toString();

        db1.updateuserdata(sfname,slname,sid);

        fname1.setText("");

        lname1.setText("");

        id.setText("");

    }

});

delete.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

        String sid = id.getText().toString();

        db1.deletedata(sid);

        id.setText("");

    }

});

view.setOnClickListener(new View.OnClickListener() {

    @Override

    public void onClick(View v) {

```

```

StringBuffer sb=new StringBuffer();

Cursor cu=db1.getdata();

while(cu.moveToNext()){

    sb.append("Id :"+cu.getString(0)+"\n");

    sb.append("First Name : "+cu.getString(1)+"\n");

    sb.append("Last Name : "+cu.getString(2)+"\n");

}

display1.setText(sb.toString());

}

});

}

}

```

### Activity 2:

```

package com.example.database;

import android.content.ContentValues;

import android.content.Context;

import android.database.Cursor;

import android.database.sqlite.SQLiteDatabase;

import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class databasess extends SQLiteOpenHelper {

```

```

int ids=0;

public databasesess(@Nullable Context context) {

    super(context, "jils", null, 1);

}

@Override

public void onCreate(SQLiteDatabase db) {

    db.execSQL("create table names (id integer primary key autoincrement,fname Text
,lname Text)");

}

@Override

public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {

    db.execSQL("Drop table if Exists names");

}

public Cursor getdata (){

    SQLiteDatabase DB=this.getWritableDatabase();

    Cursor cursor=DB.rawQuery("Select * from names",null);

    return cursor;

}

public Boolean insertuserdata(String fnames, String lnames){

    SQLiteDatabase database = this.getWritableDatabase();

    ContentValues contentValues = new ContentValues();

    contentValues.put("fname",fnames);

```

```

        contentValues.put("lname",lname);

        long result=database.insert("names", null, contentValues);

        if(result==-1){

            return false;

        }

    else

    {

        return true;

    }

}

public Boolean updateuserdata(String fname, String lname,String ids) {

    SQLiteDatabase database = this.getWritableDatabase();

    ContentValues contentValues = new ContentValues();

    contentValues.put("fname", fname);

    contentValues.put("lname", lname);

    Cursor cursor = database.rawQuery("Select * from names where id=?", new
String[]{ids});

    if (cursor.getCount() > 0) {

        long result = database.update("names", contentValues, "id=?", new String[]{ids});

        if (result == -1) {

            return false;

        } else {

            return true;

        }

    }
}

```

```

    }

    } else {

        return false;

    }

}

public Boolean deletedata(String ids){

    SQLiteDatabase database = this.getWritableDatabase();

    Cursor cursors = database.rawQuery("Select * from names where id=?", new
String[]{ids});

    if (cursors.getCount() > 0) {

        long result = database.delete("names", "id=?", new String[]{ids});

        if (result == -1) {

            return false;

        }

        else {

            return true;

        }

    }

    else {

        return false;

    }

}

}

```

**Output:**

