

Disclaimer

This PDF contains 5 Android app development source codes, carefully crafted and thoroughly tested using the latest Android Studio platform. Please note: these codes are not designed to work in Eclipse Android Development software.

If you're reading this disclaimer, great! You're now fully aware that running these codes in Eclipse will likely result in errors. Let's not be the person who says, *"Bro, your code is broken,"* without checking the tools first.

For those who skip this disclaimer and still declare, *"This code doesn't work, bro,"*—well, let's just say the code isn't the problem.

PROGRAM:

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:gravity="center_horizontal"
    android:background="#444444"
    android:padding="16dp">

    <!-- Title for the Login Screen -->
    <TextView
        android:id="@+id/tv_title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="My Login"
        android:textSize="30sp"
        android:textColor="#FFFFFF"
        android:layout_marginTop="200dp"
        android:textStyle="bold"
        android:layout_marginBottom="40dp" />

    <EditText
        android:id="@+id/ed1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Username"
        android:layout_marginTop="20dp"
        android:layout_marginBottom="20dp"
        android:textSize="20sp" />

    <EditText
        android:id="@+id/ed2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Enter Password"
        android:layout_marginBottom="40dp"
        android:inputType="textPassword" />

    <Button
        android:id="@+id/bu"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="24dp"
        android:text="OK" />

</LinearLayout>
```

Main_Activity.java

```
package com.example.mylogin;

import android.os.Bundle;
import androidx.appcompat.app.AppCompatActivity;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText ed1, ed2;
    Button bu;

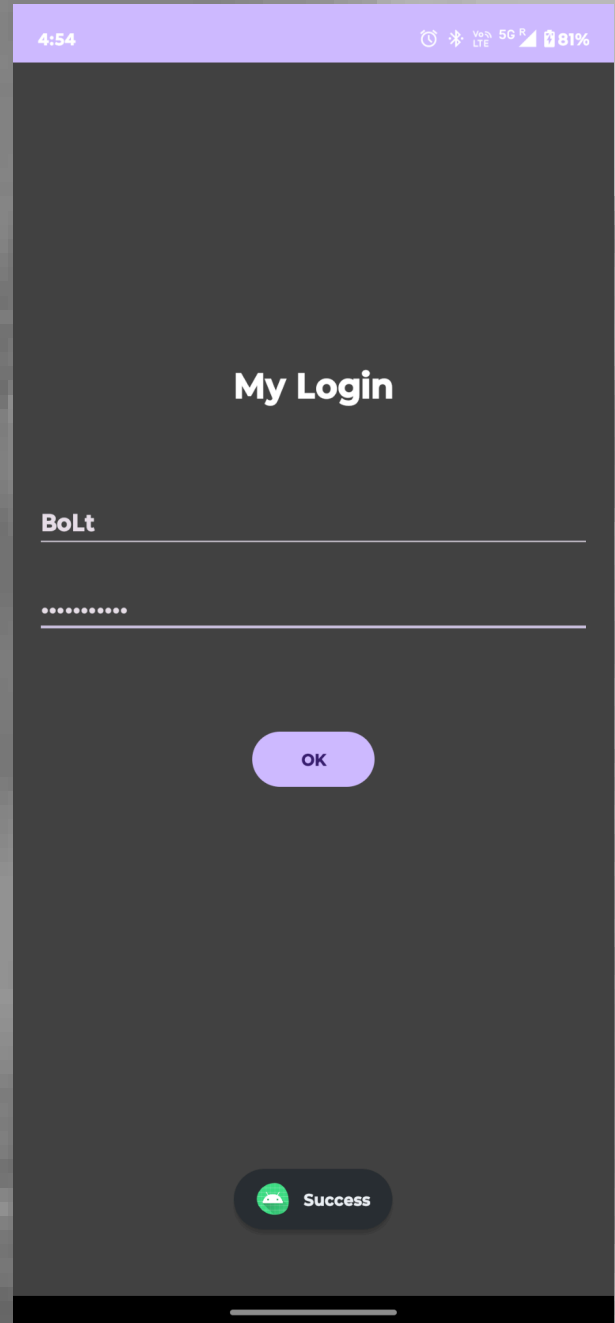
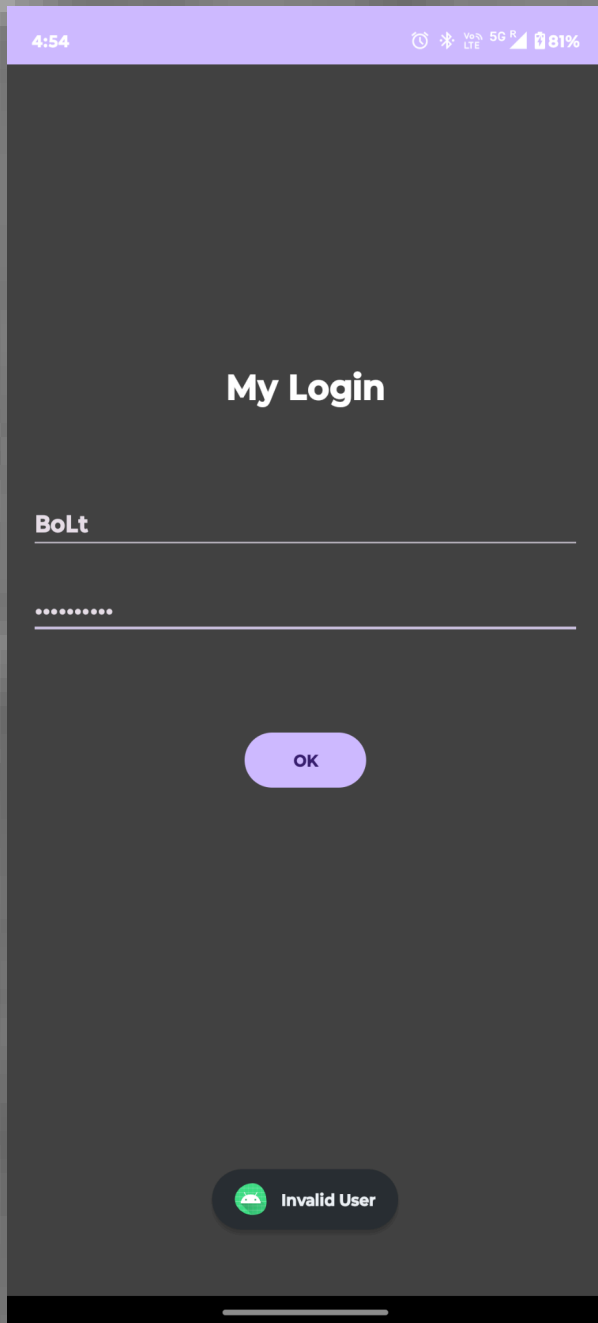
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        // Initialize views
        ed1 = findViewById(R.id.ed1);
        ed2 = findViewById(R.id.ed2);
        bu = findViewById(R.id.bu);

        // Set button click listener
        bu.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                // Get input from EditTexts
                String username = ed1.getText().toString();
                String password = ed2.getText().toString();

                // Validate credentials
                if (username.equals("BoLt") && password.equals("asdfghjkl;")) {
                    Toast.makeText(MainActivity.this, "Success", Toast.LENGTH_LONG).show();
                } else {
                    Toast.makeText(MainActivity.this, "Invalid User", Toast.LENGTH_LONG).show();
                }
            }
        });
    }
}
```

OUTPUT:



PROGRAM:

Activity_main.xml

```
<?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:id="@+id/activity_main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">

    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="80dp"
        android:orientation="horizontal"
        android:layout_centerHorizontal="true">

        <ImageView
            android:id="@+id/imageView1"
            android:layout_width="100dp"
            android:layout_height="100dp"
            android:layout_marginRight="20dp"
            android:src="@drawable/dice_1" />

        <ImageView
            android:id="@+id/imageView2"
            android:layout_width="100dp"
            android:layout_height="100dp"
            android:src="@drawable/dice_1" />

    </LinearLayout>

    <Button
        android:id="@+id/rollDices"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Roll Dice"
        android:textSize="20sp"
        android:layout_alignParentBottom="true"
        android:layout_marginBottom="30dp"
        android:layout_centerHorizontal="true" />

</RelativeLayout>
```

Main_Activity.java

```
package com.example.dicer;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
import androidx.appcompat.app.AppCompatActivity; // Updated import for AppCompatActivity
import java.util.Random;

public class MainActivity extends AppCompatActivity {
    public static final Random RANDOM = new Random();
    private Button rollDices;
    private ImageView imageView1, imageView2;

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

        rollDices = findViewById(R.id.rollDices);
        imageView1 = findViewById(R.id.imageView1);
        imageView2 = findViewById(R.id.imageView2);

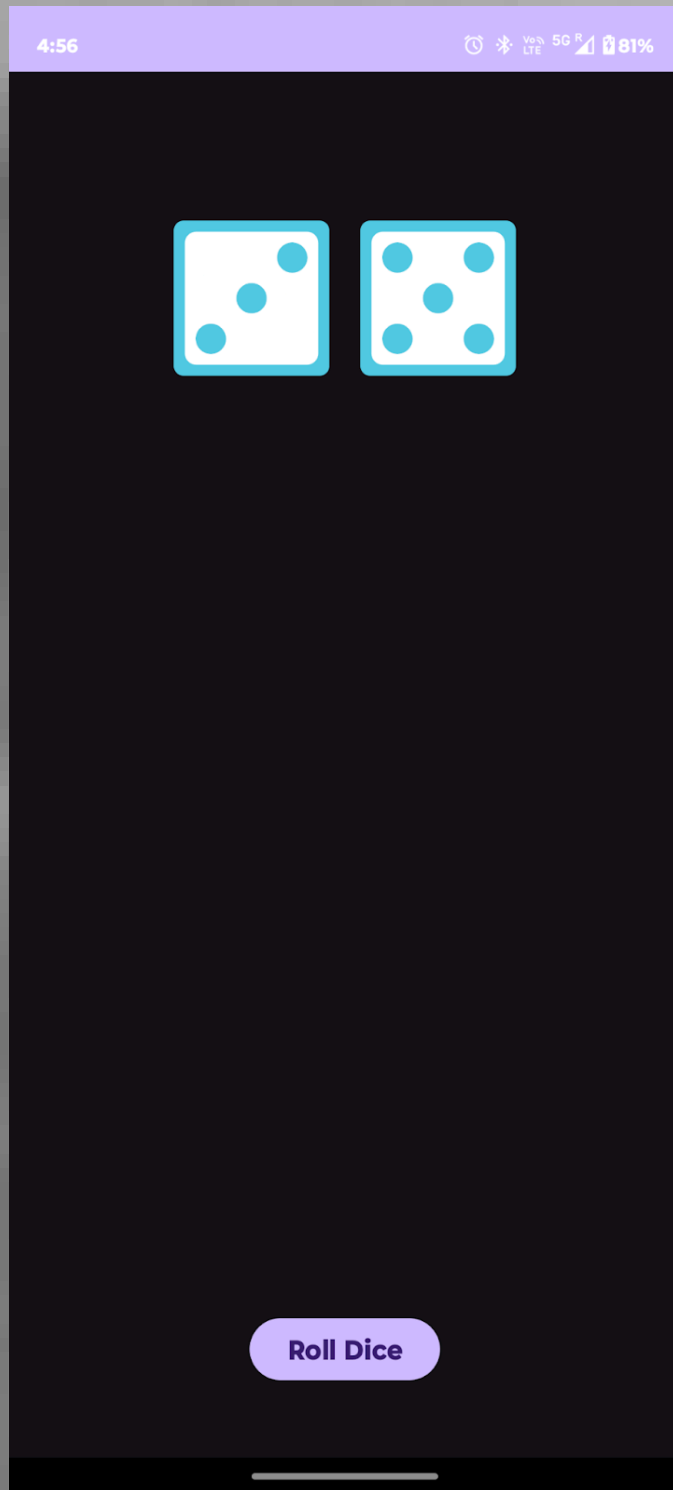
        rollDices.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int value1 = randomDiceValue();
                int value2 = randomDiceValue();

                int res1 = getResources().getIdentifier("dice_" + value1, "drawable", getPackageName());
                int res2 = getResources().getIdentifier("dice_" + value2, "drawable", getPackageName());

                imageView1.setImageResource(res1);
                imageView2.setImageResource(res2);
            }
        });
    }

    public static int randomDiceValue() {
        return RANDOM.nextInt(6) + 1; // Returns a random value between 1 and 6
    }
}
```

OUTPUT:



PROGRAM:

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="16dp"
    android:background="#444444"
    android:gravity="center_horizontal">

    <!-- Display/Edit Text for showing current input -->
    <TextView
        android:id="@+id/tv_title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Calculator"
        android:textSize="50sp"
        android:textColor="#FFFFFF"
        android:layout_marginTop="50dp"
        android:textStyle="bold"
        android:layout_marginBottom="40dp" />

    <EditText
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:id="@+id/tv"
        android:textSize="42sp"
        android:inputType="none"
        android:layout_marginTop="60dp"
        android:layout_marginBottom="190dp"
        android:gravity="end"
        android:textColor="#000000"
        android:background="#f0f0f0"/>

    <!-- First row of buttons -->
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginBottom="20dp"
        android:weightSum="4">

        <Button
            android:layout_width="0dp"
            android:layout_height="wrap_content"
            android:id="@+id/b9"
            android:layout_weight="1"
            android:text="9"
            android:textColor="#ffffff"
            android:textSize="24sp" />
```



```
<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/b8"
    android:layout_weight="1"
    android:text="8"
    android:textColor="#ffffff"
    android:textSize="24sp" />

<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/b7"
    android:layout_weight="1"
    android:text="7"
    android:textColor="#ffffff"
    android:textSize="24sp" />

<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/bpl"
    android:layout_weight="1"
    android:text="+"
    android:textColor="#ffffff"
    android:textSize="24sp" />
</LinearLayout>

<!-- Second row of buttons -->
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginBottom="20dp"
    android:weightSum="4">

    <Button
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:id="@+id/b6"
        android:layout_weight="1"
        android:text="6"
        android:textColor="#ffffff"
        android:textSize="24sp" />

    <Button
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:id="@+id/b5"
        android:layout_weight="1"
        android:text="5"
        android:textColor="#ffffff"
```

```
        android:textSize="24sp" />

<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/b4"
    android:layout_weight="1"
    android:text="4"
    android:textColor="#ffffff"
    android:textSize="24sp" />

<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/bmin"
    android:layout_weight="1"
    android:text="-"
    android:textColor="#ffffff"
    android:textSize="24sp" />
</LinearLayout>

<!-- Third row of buttons -->
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginBottom="20dp"
    android:weightSum="4">

    <Button
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:id="@+id/b3"
        android:layout_weight="1"
        android:text="3"
        android:textColor="#ffffff"
        android:textSize="24sp" />

    <Button
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:id="@+id/b2"
        android:layout_weight="1"
        android:text="2"
        android:textColor="#ffffff"
        android:textSize="24sp" />

    <Button
        android:layout_width="0dp"
        android:layout_height="wrap_content"
        android:id="@+id/b1"
        android:layout_weight="1"
```

```
        android:text="1"
        android:textColor="#ffffff"
        android:textSize="24sp" />
```

```
<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/bmul"
    android:layout_weight="1"
    android:text="*"
    android:textColor="#ffffff"
    android:textSize="24sp" />
</LinearLayout>
```

<!-- Fourth row of buttons -->

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginBottom="20dp"
    android:weightSum="5">
```

```
<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/bd"
    android:layout_weight="1"
    android:text="."
    android:textColor="#ffffff"
    android:textSize="24sp" />
```

```
<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/b0"
    android:layout_weight="1"
    android:text="0"
    android:textColor="#ffffff"
    android:textSize="24sp" />
```

```
<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/bcl"
    android:layout_weight="1"
    android:text="C"
    android:textColor="#ffffff"
    android:textSize="24sp" />
```

```
<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
```

```

        android:id="@+id/beq"
        android:layout_weight="1"
        android:text="="
        android:textColor="#ffffff"
        android:textSize="24sp" />

<Button
    android:layout_width="0dp"
    android:layout_height="wrap_content"
    android:id="@+id/bdiv"
    android:layout_weight="1"
    android:text="/"
    android:textColor="#ffffff"
    android:textSize="24sp" />
</LinearLayout>

</LinearLayout>

```

Main_Activity.java

```

package com.example.calculator;
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends Activity implements View.OnClickListener {
    Button nine, eig, sev, six, fiv, four, thr, two, one, zero, dot, plus, mins, div, mul, eq, cl;
    EditText et;
    String currentInput = "0"; // Current input string for numbers
    int result = 0; // Store the result of the calculation
    char lastOperator = ' '; // Store the last operator used
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        nine = findViewById(R.id.b9);
        eig = findViewById(R.id.b8);
        sev = findViewById(R.id.b7);
        six = findViewById(R.id.b6);
        fiv = findViewById(R.id.b5);
        four = findViewById(R.id.b4);
        thr = findViewById(R.id.b3);
        two = findViewById(R.id.b2);
        one = findViewById(R.id.b1);
        zero = findViewById(R.id.b0);
        dot = findViewById(R.id.bd);
        plus = findViewById(R.id.bpl);
        mins = findViewById(R.id.bmin);
        div = findViewById(R.id.bdiv);
    }
}

```

```

mul = findViewById(R.id.bmul);
eq = findViewById(R.id.beq);
cl = findViewById(R.id.bcl);
et = findViewById(R.id.tv);

// Set OnClickListener for Buttons
nine.setOnClickListener(this);
eig.setOnClickListener(this);
sev.setOnClickListener(this);
six.setOnClickListener(this);
fiv.setOnClickListener(this);
four.setOnClickListener(this);
thr.setOnClickListener(this);
two.setOnClickListener(this);
one.setOnClickListener(this);
zero.setOnClickListener(this);
dot.setOnClickListener(this);
plus.setOnClickListener(this);
mins.setOnClickListener(this);
div.setOnClickListener(this);
mul.setOnClickListener(this);
eq.setOnClickListener(this);
cl.setOnClickListener(this);
}
@Override
public void onClick(View v) {
    int id = v.getId();
    if (id == R.id.b0 || id == R.id.b1 || id == R.id.b2 || id == R.id.b3 ||
        id == R.id.b4 || id == R.id.b5 || id == R.id.b6 || id == R.id.b7 ||
        id == R.id.b8 || id == R.id.b9) {
        String inputDigit = ((Button) v).getText().toString();
        if (currentInput.equals("0")) {
            currentInput = inputDigit; // Start with the clicked number
        } else {
            currentInput += inputDigit; // Append further digits
        }
        et.setText(currentInput); // Update the display

        if (lastOperator == '=') {
            result = 0; // Reset result if "=" was pressed
            lastOperator = ' '; // Reset operator
        }
    } else if (id == R.id.bpl) {
        compute(); // Perform calculation for addition
        lastOperator = '+'; // Update last operator
    } else if (id == R.id.bmin) {
        compute(); // Perform calculation for subtraction
        lastOperator = '-'; // Update last operator
    } else if (id == R.id.bdiv) {
        compute(); // Perform calculation for division
        lastOperator = '/'; // Update last operator
    } else if (id == R.id.bmul) {

```

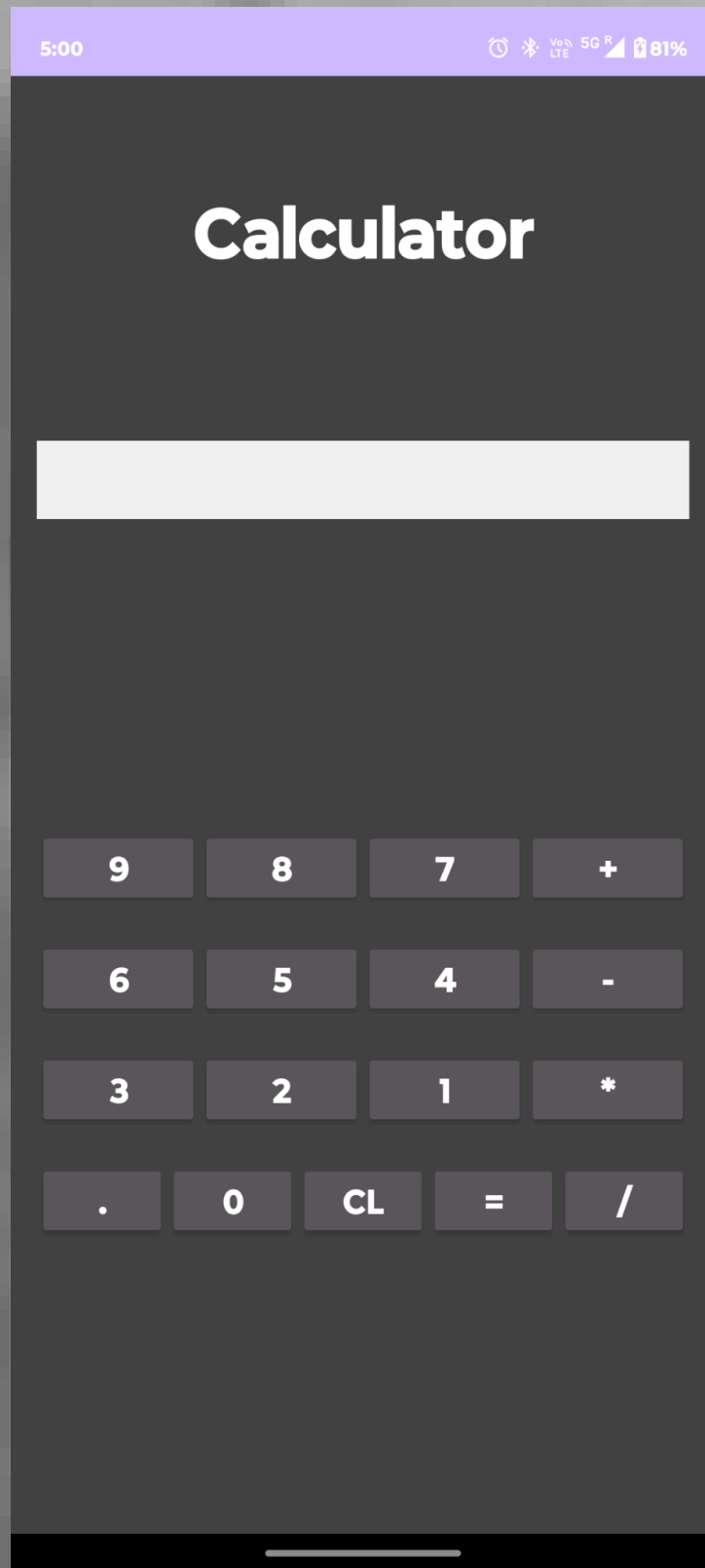
```

        compute(); // Perform calculation for multiplication
        lastOperator = '*'; // Update last operator
    } else if (id == R.id.beq) {
        compute(); // Perform final calculation
        lastOperator = '='; // Update last operator
    } else if (id == R.id.bcl) {
        result = 0; // Reset result to zero
        currentInput = "0"; // Reset input
        lastOperator = ' '; // Reset operator
        et.setText("0"); // Clear the display
    }
}

private void compute() {
    int inputNumber = Integer.parseInt(currentInput); // Convert current input to integer
    currentInput = "0"; // Reset current input after processing
    switch (lastOperator) {
        case ' ':
            result = inputNumber; // If no operator, set result to current input
            break;
        case '+':
            result += inputNumber; // Perform addition
            break;
        case '-':
            result -= inputNumber; // Perform subtraction
            break;
        case '*':
            result *= inputNumber; // Perform multiplication
            break;
        case '/':
            if (inputNumber != 0) {
                result /= inputNumber; // Perform division, check for divide by zero
            } else {
                et.setText("Error"); // Display error if division by zero
                return;
            }
            break;
        case '=':
            break; // Do nothing on '=' as result is already computed
    }
    et.setText(String.valueOf(result)); // Update the display with the result
}
}

```

OUTPUT:



PROGRAM:

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#505050">

    <RelativeLayout
        android:id="@+id/firstlayout"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_marginTop="80dp">

        <TextView
            android:id="@+id/display"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button will appear after 7 seconds"
            android:textSize="19sp" />
    </RelativeLayout>

    <RelativeLayout
        android:id="@+id/secondlayout"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/firstlayout"
        android:gravity="center">

        <TextView
            android:id="@+id/timer"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:gravity="center_horizontal"
            android:text="7"
            android:layout_marginTop="80dp"
            android:textSize="36sp"/>
    </RelativeLayout>

    <RelativeLayout
        android:id="@+id/thirdlayout"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/secondlayout"
        android:gravity="center">

        <Button
            android:id="@+id/clickme"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Button"
```



```
        android:visibility="invisible"
        android:layout_marginTop="100dp"/>
</RelativeLayout>
```

```
</RelativeLayout>
```

Main_Activity.java

```
package com.example.multithread;

import android.annotation.SuppressLint;
import android.app.Activity;
import android.os.Bundle;
import android.os.Handler;
import android.widget.Button;
import android.widget.TextView;

public class MainActivity extends Activity {

    Handler hand = new Handler();
    Button clickme;
    TextView timer;

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

        timer = (TextView) findViewById(R.id.timer);
        clickme = (Button) findViewById(R.id.clickme);

        // Initial time in seconds (you can set your desired starting time here)
        timer.setText("7");

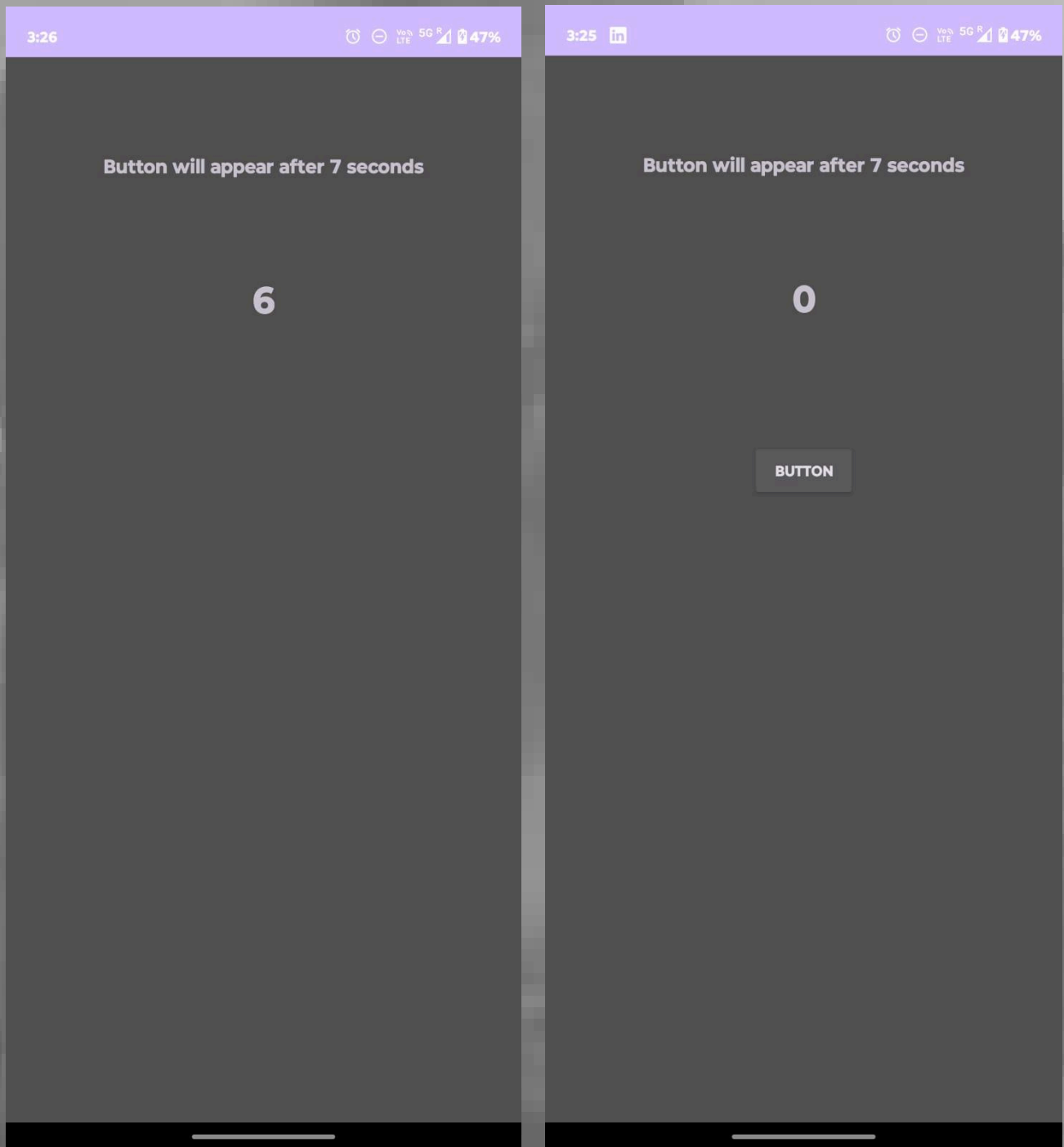
        // Start the countdown
        hand.postDelayed(run, 1000);
    }

    Runnable run = new Runnable() {
        @Override
        public void run() {
            updateTime();
        }
    };

    public void updateTime() {
        // Get the current timer value, subtract 1 and update the text
        int currentTime = Integer.parseInt(timer.getText().toString());
        currentTime -= 1;
        timer.setText(String.valueOf(currentTime));
    }
}
```

```
// If time reaches 0, make the button visible
if (currentTime == 0) {
    clickme.setVisibility(Button.VISIBLE);
} else {
    // Continue the countdown
    hand.postDelayed(run, 1000);
}
}
```

OUTPUT:



PROGRAM:

Activity_main.xml

```
<?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="#454545"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="42dp"
        android:textAppearance="?android:attr/textAppearanceMedium" />

    <TextView
        android:id="@+id/tv_title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Sign in"
        android:textSize="30sp"
        android:layout_centerHorizontal="true"
        android:textColor="#FFFFFF"
        android:layout_marginTop="150dp"
        android:textStyle="bold"
        android:layout_marginBottom="40dp" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignTop="@+id/textView1"
        android:layout_marginTop="190dp"
        android:textColor="#FFFFFF"
        android:layout_centerHorizontal="true"
        android:text="User Name"
        android:textAppearance="?android:attr/textAppearanceMedium" />

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView1"
        android:textColor="#FFFFFF"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="210dp"
        android:ems="10">
```

```

        <requestFocus />
    </EditText>

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="15dp"
        android:textColor="#FFFFFF"
        android:layout_centerVertical="true"
        android:text="Password"
        android:textAppearance="?android:attr/textAppearanceMedium" />

    <EditText
        android:id="@+id/editText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView3"
        android:textColor="#FFFFFF"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="20dp"
        android:ems="10"
        android:inputType="textPassword" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/editText2"
        android:layout_alignRight="@+id/textView2"
        android:layout_marginTop="40dp"
        android:text="Login" />

</RelativeLayout>

```

Second.xml

```

<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:background="#454545"
    android:layout_height="match_parent">
    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_x="106dp"
        android:layout_y="141dp"
        android:text="Successfully Login"
        android:textColor="#FFFFFF"
        android:textSize="25dp" />
</AbsoluteLayout>

```

Third.xml

```
<?xml version="1.0" encoding="utf-8"?>
<AbsoluteLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:background="#454545"
    android:layout_height="match_parent">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_x="146dp"
        android:layout_y="141dp"
        android:text="Login Failed"
        android:textColor="#FFFFFF"
        android:textSize="25dp" />
</AbsoluteLayout>
```

Main_Activity.java

```
package com.example.signin;

import android.os.Bundle;
import android.app.Activity;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;

public class MainActivity extends Activity {

    EditText A, B;
    Button C;
    String E, F;

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

        // Initialize EditText and Button
        A = (EditText) findViewById(R.id.editText1);
        B = (EditText) findViewById(R.id.editText2);
        C = (Button) findViewById(R.id.button1);

        // Set onClickListener for login button
        C.setOnClickListener(new OnClickListener() {
            @Override
            public void onClick(View v) {
                // Get the entered username and password
                E = A.getText().toString();
```

```
F = B.getText().toString();
```

```
// Check if the credentials are correct
```

```
if (E.equals("BoLt") && F.equals("asdfghjkl;")) {
```

```
    // Switch to successful login screen
```

```
    setContentView(R.layout.second);
```

```
} else {
```

```
    // Switch to failed login screen
```

```
    setContentView(R.layout.third);
```

```
}
```

```
}
```

```
});
```

```
}
```

```
@Override
```

```
public boolean onCreateOptionsMenu(Menu menu) {
```

```
    // Inflate the menu; this adds items to the action bar if it is present
```

```
    getMenuInflater().inflate(R.menu.activity_main, menu);
```

```
    return true;
```

```
}
```

```
}
```

OUTPUT:

