Q.2) Java Android Program to perform all arithmetic Operations using Calculator.

```
package com.example.calapp;


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

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    private EditText editText;
    private Button btnAdd, btnSubtract, btnMultiply,
btnDivide;
    private TextView resultTextView;

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

        editText = findViewById(R.id.editText);
        btnAdd = findViewById(R.id.btnAdd);
        btnSubtract = findViewById(R.id.btnSubtract);
        btnMultiply = findViewById(R.id.btnMultiply);
        btnDivide = findViewById(R.id.btnDivide);
        resultTextView =
findViewById(R.id.resultTextView);

        btnAdd.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                performOperation("+");
            }
        });
```

```
        btnSubtract.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                performOperation("-");
            }
        });

        btnMultiply.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                performOperation("*");
            }
        });

        btnDivide.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                performOperation("/");
            }
        });
    }

    private void performOperation(String operator) {
        try {
            double num =
Double.parseDouble(editText.getText().toString());
            double result = 0;

            switch (operator) {
                case "+":
                    // Addition
                    result = num + num;
                    break;
                case "-":
                    // Subtraction
                    result = num - num;
```

```
                    break;
                case "*":
                    // Multiplication
                    result = num * num;
                    break;
                case "/":
                    // Division
                    result = num / num;
                    break;
            }

            resultTextView.setText("Result: " +
result);
        } catch (NumberFormatException e) {
            resultTextView.setText("Invalid input");
        }
    }
}
<?xml version="1.0" encoding="utf-8"?>
<manifest
xmlns:android="http://schemas.android.com/apk/res/andr
oid"
    xmlns:tools="http://schemas.android.com/tools">

    <application
        android:allowBackup="true"

android:dataExtractionRules="@xml/data_extraction_rule
s"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.CalApp"
        tools:targetApi="31">
        <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>
```