EXPERIMENT - 07

CODE:

```
package com.example.myapplication;

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 {
    EditText etFirstNumber, etSecondNumber;
    TextView tvResult;
    Button btnAdd, btnSubtract, btnMultiply, btnDivide, btnClear;

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

        etFirstNumber = findViewById(R.id.et_first_number);
        etSecondNumber = findViewById(R.id.et_second_number);
        tvResult = findViewById(R.id.tv_result);
        btnAdd = findViewById(R.id.btn_add);
        btnSubtract = findViewById(R.id.btn_subtract);
        btnMultiply = findViewById(R.id.btn_multiply);
        btnDivide = findViewById(R.id.btn_divide);
        btnClear = findViewById(R.id.btn_clear);

        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("/");
            }
        });

        btnClear.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                clearFields();
            }
        });
    }

    private void performOperation(String operator) {
        if (etFirstNumber.getText().toString().isEmpty() ||
etSecondNumber.getText().toString().isEmpty()) {
            tvResult.setText("Enter numbers first");
            return;
        }

        int firstNumber = Integer.parseInt(etFirstNumber.getText().toString());
        int secondNumber = Integer.parseInt(etSecondNumber.getText().toString());
        int result;

        switch (operator) {
            case "+":
                result = firstNumber + secondNumber;
                tvResult.setText("Addition of " + firstNumber + " + " + secondNumber + " is " + result);
                break;
            case "-":
                result = firstNumber - secondNumber;
                tvResult.setText("Subtraction of " + firstNumber + " - " + secondNumber + " is " +
result);
                break;
```

```
            case "*":
                result = firstNumber * secondNumber;
                tvResult.setText("Multiplication of " + firstNumber + " * " + secondNumber + " is " +
result);
                break;
            case "/":
                if (secondNumber == 0) {
                    tvResult.setText("Cannot divide by zero");
                    return;
                }
                result = firstNumber / secondNumber;
                tvResult.setText("Division of " + firstNumber + " / " + secondNumber + " is " + result);
                break;
        }
    }

    private void clearFields() {
        etFirstNumber.setText("");
        etSecondNumber.setText("");
        tvResult.setText("");
    }
}
```

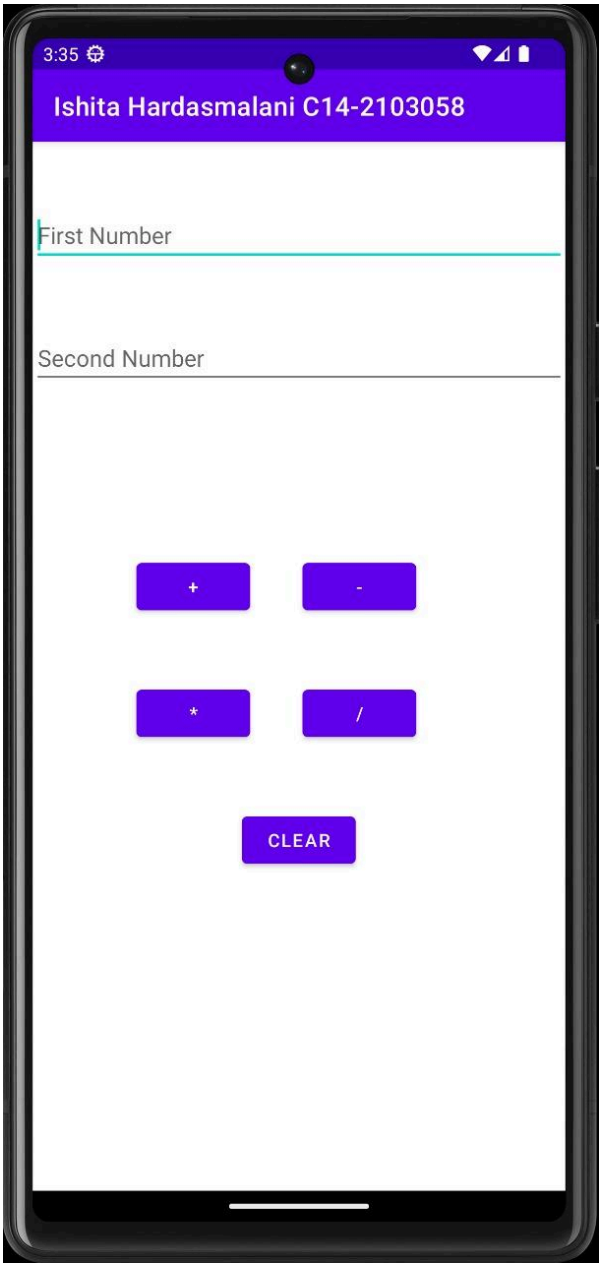
XML:

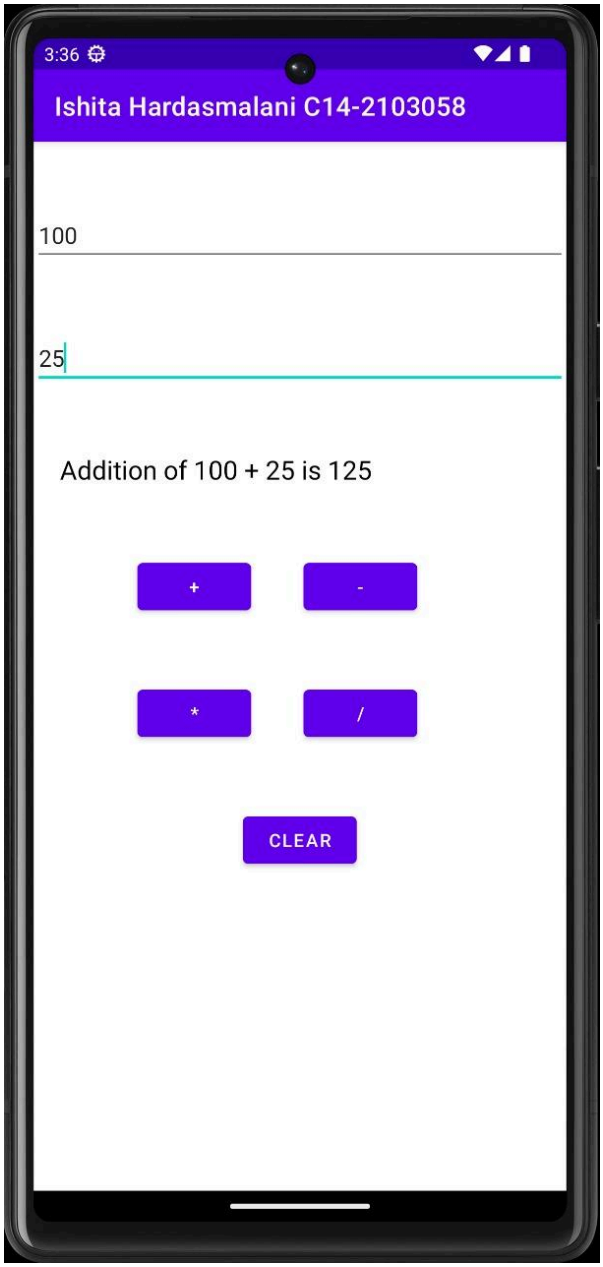
```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">

    <EditText
        android:id="@+id/et_first_number"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="number"
        android:layout_marginTop="50dp"
        android:hint="First Number"/>

    <EditText
        android:id="@+id/et_second_number"
```

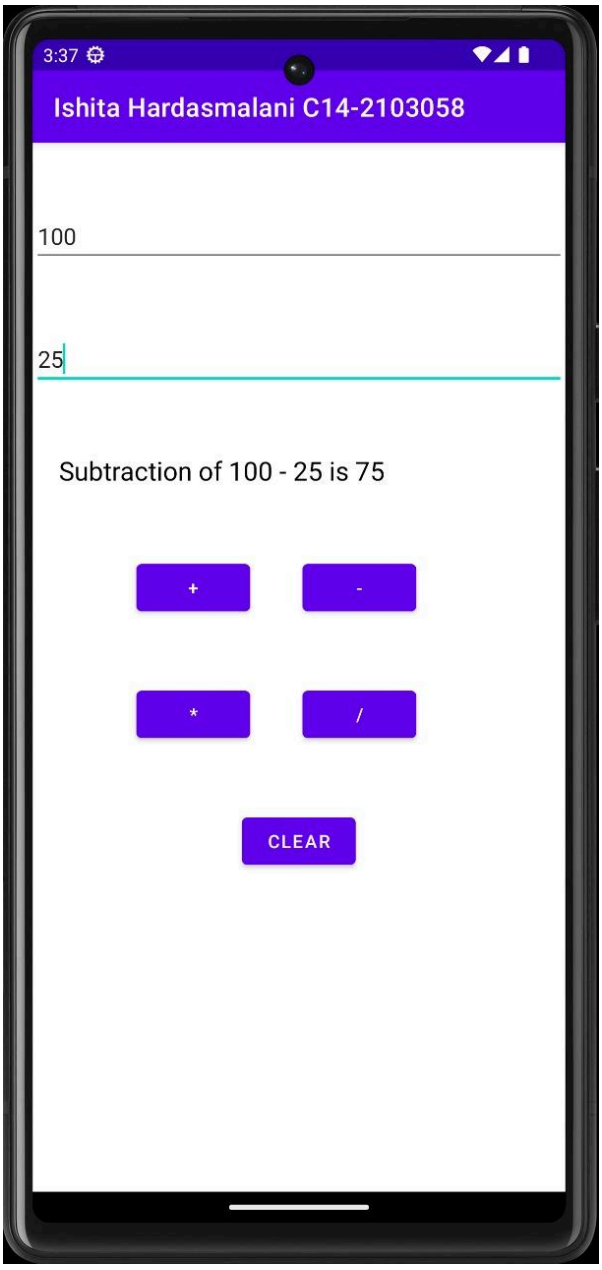
```
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:ems="10"
    android:inputType="number"
    android:layout_marginTop="50dp"
    android:hint="Second Number"/>

<TextView
    android:id="@+id/tv_result"
    android:layout_width="match_parent"
    android:layout_height="30dp"
    android:textSize="20sp"
    android:textColor="#000000"
    android:text=" "
    android:layout_marginTop="50dp"
    android:paddingLeft="20dp"/>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:layout_marginTop="50dp"
    android:layout_marginRight="50dp"
    android:layout_marginLeft="50dp">

    <Button
        android:id="@+id/btn_add"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="+"
        android:layout_marginLeft="30dp"
        android:layout_marginRight="20dp"/>

    <Button
        android:id="@+id/btn_subtract"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="-"
        android:layout_marginLeft="20dp"
        android:layout_marginRight="20dp"/>
</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
```

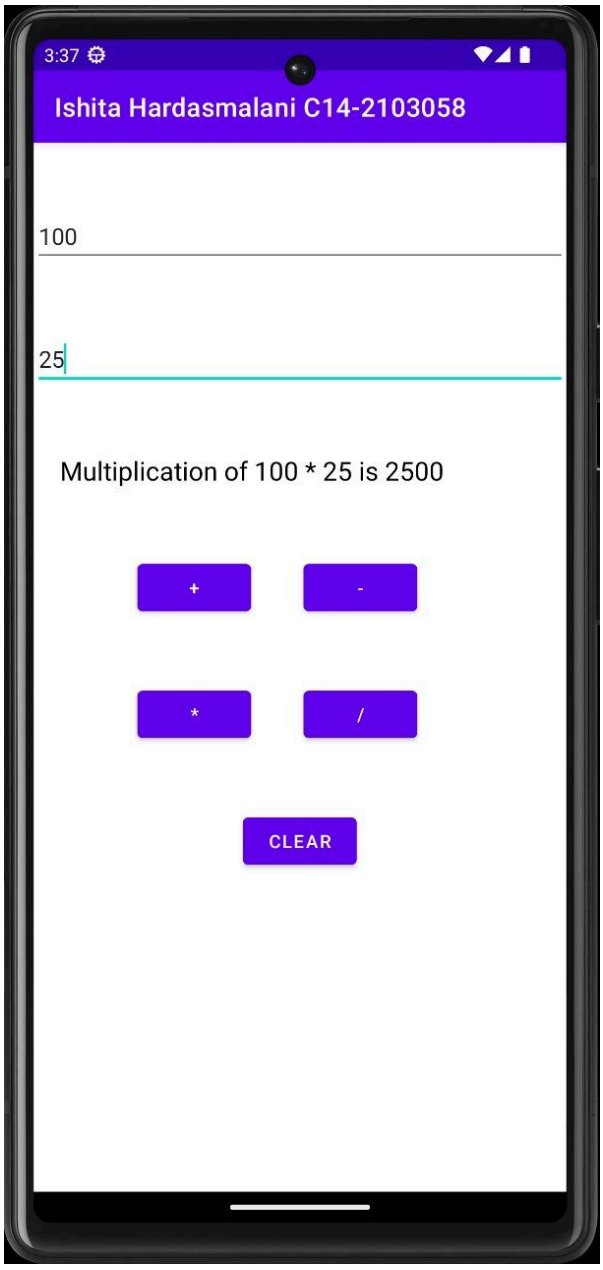
```
        android:layout_marginTop="50dp"
        android:layout_marginRight="50dp"
        android:layout_marginLeft="50dp">

        <Button
            android:id="@+id/btn_multiply"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="*"
            android:layout_marginLeft="30dp"
            android:layout_marginRight="20dp"/>

        <Button
            android:id="@+id/btn_divide"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="/"
            android:layout_marginRight="20dp"
            android:layout_marginLeft="20dp"/>
    </LinearLayout>

    <Button
        android:id="@+id/btn_clear"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Clear"
        android:layout_marginTop="50dp"
        android:layout_gravity="center"/>

</LinearLayout>
```

OUTPUT:


3:35
Ishita Hardasmalani C14-2103058
First Number
Second Number
+
-
*
/
CLEAR


3:36
Ishita Hardasmalani C14-2103058
100
25
Addition of 100 + 25 is 125
+
-
*
/
CLEAR


3:37
Ishita Hardasmalani C14-2103058
100
25
Subtraction of 100 - 25 is 75
+
-
*
/
CLEAR


3:37
Ishita Hardasmalani C14-2103058
100
25
Multiplication of 100 * 25 is 2500
+
-
*
/
CLEAR


3:37
Ishita Hardasmalani C14-2103058
100
25
Division of 100 / 25 is 4
+
-
*
/
CLEAR