**Fibonacci App**

**<!— MainActivity.java -->**

package com.example.fibonacci;

import android.os.Bundle;

import androidx.appcompat.app.AppCompatActivity;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

public class MainActivity extends AppCompatActivity {

TextView textView;

Button generate\_button;

EditText editText;

Button clear\_button;

String fib = "";

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

textView = findViewById(R.id.result);

generate\_button = findViewById(R.id.generate\_button);

editText = findViewById(R.id.edit);

clear\_button = findViewById(R.id.clear\_button);

generate\_button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

fib = "";

String text = editText.getText().toString();

int num = Integer.parseInt(text);

loop(num);

}

});

clear\_button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View v) {

// Clear the EditText content

textView.setText("");

editText.getText().clear();

}

});

}

void loop(int a) {

for (int i = 0; i <= a; i++) {

long b = fibonacciOne(i);

fib = fib + b + ",";

}

textView.setText(fib);

}

public long fibonacciOne(int n) {

if (n <= 1)

return n;

long prev1 = 0;

long prev2 = 1;

long fib = 0;

for (int i = 2; i <= n; i++) {

fib = prev1 + prev2;

prev1 = prev2;

prev2 = fib;

}

return fib;

}

}