  // Declare variables to represent pins and parameters

int bt1 = 1; // Button 1 is connected to pin 1

int bt2 = 2; // Button 2 is connected to pin 2

int ledG = 5; // Green LED is connected to pin 5

int ledR = 8; // Red LED is connected to pin 8

int ibt1 = 0; // ibt1 will be used to store the value of Button 1 (initialized as 0)

int ibt2 = 0; // ibt2 will be used to store the value of Button 2 (initialized as 0)

int a = 600;  // Parameter a is calculated as the first letter of (Name \* 100) = 6 \* 100 = 600

int b = 1100; // Parameter b is calculated as the second letter of (Name\* 100)= 11 \* 100 = 1100

int c = 5; // Parameter c is calculated as the third letter of (Name + 4) = 1 + 4 = 5

int d = 2000; // Parameter d is calculated as the fourth letter of (Name\* 500) = 4 \* 500 = 2000

int f = 0; // Variable to store increasing value of a for delay of Green Pulses

void setup() {

  // Set the pinMode for the pins

  pinMode(bt1, INPUT); // Set Button 1 as an input

  pinMode(bt2, INPUT); // Set Button 2 as an input

  pinMode(ledG, OUTPUT); // Set the Green LED as an output

  pinMode(ledR, OUTPUT); // Set the Red LED as an output

}

void loop() {

  // Get the values from Button 1 and Button 2

  ibt1 = digitalRead(bt1); // Store the value of Button 1 in the variable ibt1

  ibt2 = digitalRead(bt2); // Store the value of Button 2 in the variable ibt2

  // If Button 1 is pressed, turn off both LEDs

  if (ibt1 == HIGH) {

    digitalWrite(ledG, LOW); // Turn off the Green LED

    digitalWrite(ledR, LOW); // Turn off the Red LED

  }

  else {

    // If Button 2 is not pressed, create a flashing pattern with the Green LED

    if (ibt2 == LOW) {

      digitalWrite(ledR, HIGH); // Turn on the Red LED

      delayMicroseconds(50);

      digitalWrite(ledR, LOW); // Turn off the Red LED

      // Create a flashing pattern with the Green LED using parameters a, b, and c

      for (int i = 0; i < c; i++) {

        digitalWrite(ledG, HIGH); // Turn on the Green LED

        delayMicroseconds(f=a+(i\*50)); // Wait for the specified amount of time (parameter a)

        digitalWrite(ledG, LOW); // Turn off the Green LED

        delayMicroseconds(b); // Wait for the specified amount of time (parameter b)

      }

      digitalWrite(ledG, LOW); // Turn off the Green LED

      delayMicroseconds(d); // Wait for the specified amount of time (parameter d)

    }

    // If Button 2 is pressed, create a different flashing pattern with the Green LED

    else {

      digitalWrite(ledR, HIGH); // Turn on the Red LED

      delayMicroseconds(50);

      digitalWrite(ledR, LOW); // Turn off the Red LED

  for(int i =0; i<c-3;i++)

      {

        digitalWrite(ledG, HIGH); // Turn on the Green LED

        delayMicroseconds(f=a+(i\*50));

        digitalWrite(ledG, LOW); // Turn off the Green LED

        delayMicroseconds(b);

      }

      digitalWrite(ledG, LOW);

      delayMicroseconds(d);

    }

  }

}