Assignment no . 14

Aim:- Write an application to control the operation of hardware simulated traffic signals.

Code:-

// Define the LED pins

const int redPin = 2;

const int yellowPin = 3;

const int greenPin = 4;

// Define durations for each light (in milliseconds)

const unsigned long redDuration = 5000; // Red light duration

const unsigned long yellowDuration = 2000; // Yellow light duration

const unsigned long greenDuration = 5000; // Green light duration

void setup() {

// Set LED pins as outputs

pinMode(redPin, OUTPUT);

pinMode(yellowPin, OUTPUT);

pinMode(greenPin, OUTPUT);

}

void loop() {

// Red Light

digitalWrite(redPin, HIGH); // Turn on red light

delay(redDuration); // Wait for red duration

digitalWrite(redPin, LOW); // Turn off red light

// Yellow Light

digitalWrite(yellowPin, HIGH); // Turn on yellow light

delay(yellowDuration); // Wait for yellow duration

digitalWrite(yellowPin, LOW); // Turn off yellow light

// Green Light

digitalWrite(greenPin, HIGH); // Turn on green light

delay(greenDuration); // Wait for green duration

digitalWrite(greenPin, LOW); // Turn off green light

}