**ASSIGNMENT NO 04**

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**Name:-** **Dattatray Suresh Gatkal**

**Roll No:- 17**

**Batch:- A**

**Aim:-** Design and implement IoT system for one of the applications like: Traffic Application, Medical/Health application, Social Application etc

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**Code :- [Traffic Application]**

int redPin[] = {12, 9, 6, 3};

int greenPin[] = {10, 7, 4, 1};

int currentRoad = 0;

void setup() {

pinMode(redPin[0], OUTPUT);

pinMode(greenPin[0], OUTPUT);

pinMode(redPin[1], OUTPUT);

pinMode(greenPin[1], OUTPUT);

pinMode(redPin[2], OUTPUT);

pinMode(greenPin[2], OUTPUT);

pinMode(redPin[3], OUTPUT);

pinMode(greenPin[3], OUTPUT);

}

void loop() {

// Road 1: Green, Others: Red

digitalWrite(redPin[0], LOW);

digitalWrite(greenPin[0], HIGH);

delay(21000);

// Road 1: Red, Others: Green

digitalWrite(greenPin[0], LOW);

digitalWrite(redPin[0], HIGH);

delay(250);

// Road 2: Green, Others: Red

digitalWrite(redPin[1], LOW);

digitalWrite(greenPin[1], HIGH);

delay(21000);

// Road 2: Red, Others: Green

digitalWrite(greenPin[1], LOW);

digitalWrite(redPin[1], HIGH);

delay(250);

// Road 3: Green, Others: Red

digitalWrite(redPin[2], LOW);

digitalWrite(greenPin[2], HIGH);

delay(21000);

// Road 3: Red, Others: Green

digitalWrite(greenPin[2], LOW);

digitalWrite(redPin[2], HIGH);

delay(250);

// Road 4: Green, Others: Red

digitalWrite(redPin[3], LOW);

digitalWrite(greenPin[3], HIGH);

delay(21000);

// Road 4: Red, Others: Green

digitalWrite(greenPin[3], LOW);

digitalWrite(redPin[3], HIGH);

delay(250);

// Cycle to the next road

currentRoad = (currentRoad + 1) % 4;

}

**OUTPUT :-**

