

ASSIGNMENT 3

Python Programming

Assignment Date	3 October 2022
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Maximum Marks	2 Marks

PROGRAM FOR TRAFFIC LIGHT

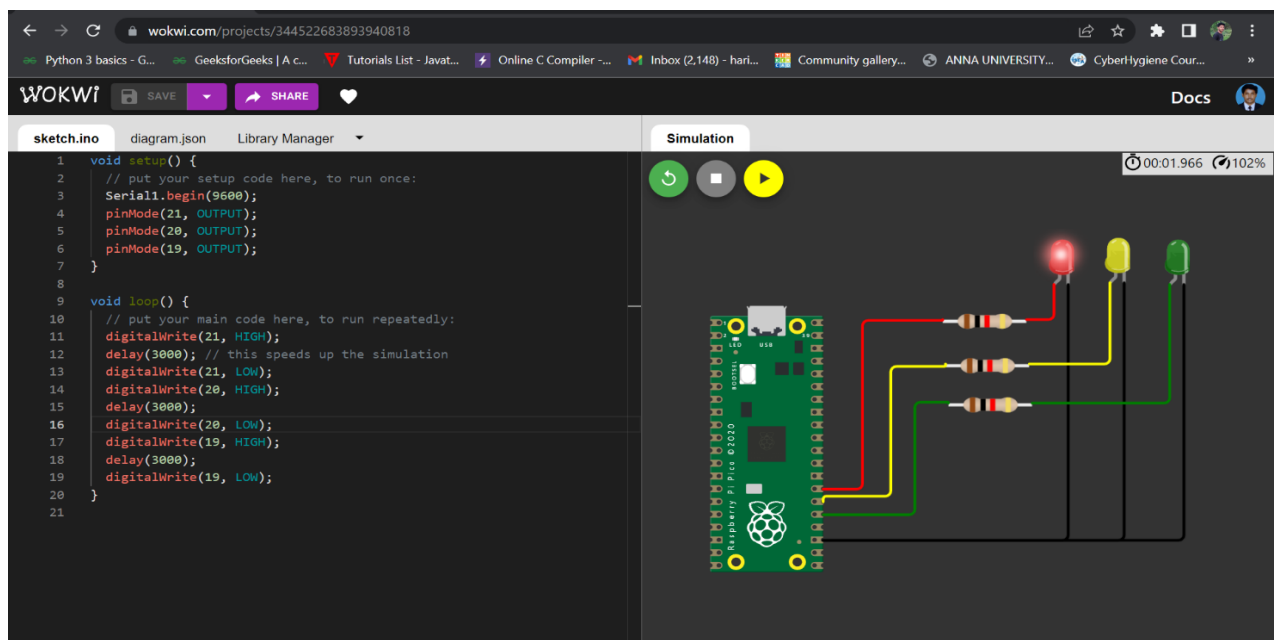
Python Code:

```
void setup() {  
    // put your setup code here, to run once:  
    Serial1.begin(9600);  
    pinMode(21, OUTPUT);  
    pinMode(20, OUTPUT);  
    pinMode(19, OUTPUT);  
}  
  
void loop() {  
    // put your main code here, to run repeatedly:  
    digitalWrite(21, HIGH);  
    delay(3000); // this speeds up the simulation  
    digitalWrite(21, LOW);  
    digitalWrite(20, HIGH);  
    delay(3000);  
    digitalWrite(20, LOW);  
    digitalWrite(19, HIGH);  
    delay(3000);  
    digitalWrite(19, LOW);  
}
```

OUTPUT:

Traffic Lights For Raspberry Pi

Blinking Red Light:



Blinking Yellow Light:



Blinking Green Light:



BLINKING LED:

PROGRAM FOR BLINKING LED:

Python code:

```

void setup() {
  // put your setup code here, to run once:
  Serial.begin(9600);
  pinMode(22, OUTPUT);
}

void loop() {
  // put your main code here, to run repeatedly:
  digitalWrite(22, HIGH);
  Serial.println("LED ON");
  delay(2000);
  digitalWrite(22, LOW);
  Serial.println("LED OFF");
  delay(2000);
}

```

Output:

Blinking LED For Raspberry pi:

The screenshot displays the Wokwi online IDE interface. On the left, the 'sketch.ino' tab contains the following C++ code:

```

1 void setup() {
2   // put your setup code here, to run once:
3   Serial.begin(9600);
4   pinMode(22, OUTPUT);
5 }
6
7 void loop() {
8   // put your main code here, to run repeatedly:
9   digitalWrite(22, HIGH);
10  Serial.println("LED ON");
11  delay(2000);
12  digitalWrite(22, LOW);
13  Serial.println("LED OFF");
14  delay(2000);
15 }
16

```

On the right, the 'Simulation' tab shows a virtual circuit. A Raspberry Pi Pico board is connected to a red LED through a resistor. The LED is currently lit, indicating the program is running. The simulation controls at the top of the simulation area include a play button, a stop button, and a refresh button. The timer shows 00:09.365 and the progress is at 99%.