

ASSIGNMENT 3

Team ID:**PNT2022TMID52302**

Project Name: **Gas Leakage monitoring &Alerting system for Industries**

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QUESTION:

Write python code for blinking LED and Traffic lights for Raspberry pi.

Only python code is enough, no need to execute in raspberry pi.

Note: you are allowed to use web search and complete the assignment.

Solution Code:

LED BLINKING:

```
import RPi.GPIO as GPIO
from time import sleep

GPIO.setwarnings(False)
GPIO.setmode(GPIO.BOARD)
GPIO.setup(10, GPIO.OUT, initial=GPIO.LOW)
while True:
    GPIO.output(10, GPIO.HIGH)
    sleep(1000)
    GPIO.output(10, GPIO.LOW)
    sleep(1000)
```

TRAFFIC LIGHTS:

```
import RPi.GPIO as GPIO
from time import sleep

GPIO.setwarnings(False)
GPIO.setmode(GPIO.BOARD)
GPIO.setup(10, GPIO.OUT, initial=GPIO.LOW) # Set pin 10 as output for red
GPIO.setup(11, GPIO.OUT, initial=GPIO.LOW) # Set pin 11 as output for yellow
GPIO.setup(12, GPIO.OUT, initial=GPIO.LOW) # Set pin 12 as output for green
while True:
    GPIO.output(10, GPIO.HIGH)
    GPIO.output(11, GPIO.LOW)
    GPIO.output(12, GPIO.LOW)
    sleep(60)
    GPIO.output(10, GPIO.LOW)
    GPIO.output(11, GPIO.HIGH)
    GPIO.output(12, GPIO.LOW)
    sleep(10)
    GPIO.output(10, GPIO.LOW)
    GPIO.output(11, GPIO.LOW)
    GPIO.output(12, GPIO.HIGH)
    Sleep(120);
```