IBM ASSIGNMENT – 3

Python Programming

Team ID	PNT2022TMID50840
Project Name	Gas leakage monitoring and alerting system

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

CODE FOR BLINKING LED:

import RPi.GPIO as GPIO

import time

GPIO.setmode(GPIO.BCM)

cnt = 0

MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds

RED_LED = 4

GPIO.setup(RED_LED, GPIO.OUT)

while True:

ifcnt == 0 :

GPIO.output(RED_LED, False)

cnt = 1

```python
    else:
        GPIO.output(RED_LED, True)
        cnt = 0

    time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

CODE FOR TRAFFIC LIGHTS:

```python
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep

buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25, 8, 7)

while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
```

```
lights.red.on()
sleep(1)
lights.off()
buzzer.off()
```