

Assignment 3

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Project Name	GAS LEAKAGE MONITORING AND ALERTING SYSTEM
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Question-1:

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:

```
from gpiozero import Button
button = Button(21)
while True:
    print(button.is_pressed)
    while True:
        if button.is_pressed:
            print("Hello")
        else:
            print("Goodbye")
    while True:
        button.wait_for_press()
        print("Pressed")
        button.wait_for_release()
        print("Released")
from gpiozero import Button, LED led = LED(25)
while True:
    button.wait_for_press()
    led.on()
    button.wait_for_release()
    led.off()
    while True:
        led.on()
```

```
button.wait_for_press()
led.off()
button.wait_for_release()
while True:
    led.blink()
    button.wait_for_press()
    led.off()
    button.wait_for_release()
from gpiozero import Button, TrafficLights lights = TrafficLights(25, 8, 7) while True:
    button.wait_for_press()
    lights.on()
    button.wait_for_release()
    lights.off()
    while True:
        lights.blink()
        button.wait_for_press()
        lights.off()
        button.wait_for_release()
from gpiozero import Button, TrafficLights, Buzzer buzzer = Buzzer(15) while True:
    lights.on()
    buzzer.off()
    button.wait_for_press()
    lights.off()
    buzzer.on()
    button.wait_for_release()
    while True:
        lights.blink()
        buzzer.beep()
        button.wait_for_press()
        lights.off()
        buzzer.off()
        button.wait_for_release()
from time import sleep while True:
    lights.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    while True:
        button.wait_for_press()
        lights.green.on()
        sleep(1)
```

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