

Assignment -3

Assignment Date	
Student Name	Lingamoorthy L
Student Roll Number	20ECL08
Maximum Marks	2 Marks

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:

BUTTON

```
from gpiozero import Button
button = Button(21)
while True:
    print(button.is_pressed)
    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()
```

TRAFFIC LIGHTS

```
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()
```

TRAFFIC LIGHTS SEQUENCES

```
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()
```