Assignment -3

Python Programming

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.

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()
```