

**ASSIGNMENT 3**  
**PYTHON PROGRAMMING - 2**

Assignment Date	3 October 2022
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**Question – 1**

**Write Python code for Blinking LED and Traffic Lights for Raspberry Pi. Only the Python code is enough and need not to execute it on the board.**

**Solution**

**Blinking of an LED**

```
# Using in-built functions
from gpiozero import Button, LED, Buzzer
#connecting led button & buzzer to gpio pins
led = LED(18)
button = Button(16)
buzzer = Buzzer(7)
#blinking led based on button press
while True:
    button.wait_for_press()
    led.blink(1,1)
    buzzer.on()
    button.wait_for_release()
    led.off()
    buzzer.off()
```

```
2
3  # Blinking of an LED
4  # Using in-built functions
5  from gpiozero import Button, LED, Buzzer
6  #connecting led button & buzzer to gpio pins
7  led = LED(18)
8  button = Button(16)
9  buzzer = Buzzer(7)
10
11 #blinking led based on button press
12 while True:
13     button.wait_for_press()
14     led.blink(1,1)
15     buzzer.on()
16     button.wait_for_release()
17     led.off()
18     buzzer.off()
```

## Traffic Lights

```
# Creating Traffic light using RaspberryPi
from gpiozero import TrafficLights, Button
from time import sleep
signal = TrafficLights(22,8,7)
button = Button(16)
while True:
    button.wait_for_press()
    signal.red.on()
    sleep(1)
    signal.amber.on()
    sleep(1)
    signal.green.on()
    sleep(1)
    signal.off()
```

```
2
3 # Creating Traffic light using RaspberryPi
4 from gpiozero import TrafficLights, Button
5 from time import sleep
6 signal = TrafficLights(22,8,7)
7 button = Button(16)
8 while True:
9     button.wait_for_press()
10    signal.red.on()
11    sleep(1)
12    signal.amber.on()
13    sleep(1)
14    signal.green.on()
15    sleep(1)
16    signal.off()
```