ASSIGNMENT 3
PYTHON PROGRAMMING - 2

Assignment Date	3 October 2022
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Maximum Marks	2 marks

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

```python
# 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()
```

```python
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()
```