

Assignment -3
Python Programming

Assignment Date	06 October 2022
Student Name	Mr.S.AYYANAR
Student Roll Number	812419106010
Maximum Marks	2 Marks

Question-1:

WRITE A PYTHON CODE FOR BLINKING LED FOR RASPBERRY PI.

PROGRAM:

```
import RPi.GPIO as GPIO
import time
#assign numbering for the GPIO using BCM
GPIO.setmode(GPIO.BCM)
#assignn number for the GPIO using Board
#GPIO.setmode(GPIO.BOARD)

cnt = 0
MAIL_CHECK_FREQ = 1 # change LED status every 1 seconds
RED_LED = 4
GPIO.setup(RED_LED, GPIO.OUT)
while True:
    if cnt == 0 :
        GPIO.output(RED_LED, False)
        cnt = 1
    else:
        GPIO.output(RED_LED, True)
        cnt = 0

    time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

IBM.py - C:/Users/user/AppData/Local/Programs/Python/Python37/IBM.py (3.7.0)
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import RPi.GPIO as GPIO
import time
#assign numbering for the GPIO using BCM
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GPIO.output(RED_LED, True)
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time.sleep(MAIL_CHECK_FREQ)
GPIO.cleanup()
```

Question-2:

WRITE A PYTHON CODE FOR TRAFFIC LIGHT RASPBERRY PI.

PROGRAM:

```
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep
```

```
buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25, 8, 7)
```

```
while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    buzzer.off()
```

IBMM.py - C:/Users/user/AppData/Local/Programs/Python/Python37/IBMM.py (3.7.0)

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from gpiozero import Button, TrafficLights, Buzzer
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buzzer = Buzzer(15)
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while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    buzzer.off()
```

