ASSIGNMENT 3

DOMAIN: IOT – Internet of Things.

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Question:

WRITE A PYTHON CODE FOR BLINKING LED .

Python Code:

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

Question:

WRITE A PYTHON CODE FOR TRAFFIC LIGHTS USING RASPBERY PI

Python Code:

```
import RPi.GPIO as GPIO
import time try:
def lightTraffic(led1, led2, led3, delay):
GPIO.output(led1, 1)
time.sleep(delay)
GPIO.output(led1, 0)
GPIO.output(led2, 1)
time.sleep(delay)
GPIO.output(led2, 0)
GPIO.output(led3, 1)
time.sleep(delay)
GPIO.output(led3, 0)
GPIO.setmode(GPIO.BCM)
button = 19
GPIO.setup(button, GPIO.IN,
pull_up_down=GPIO.PUD_UP) ledGreen = 16
ledYellow =
12 ledRed = 23
GPIO.setup(ledGreen, GPIO.OUT)
GPIO.setup(ledYellow, GPIO.OUT)
GPIO.setup(ledRed, GPIO.OUT)
while True:
input_state = GPIO.input(button) if
input_state == False:
print('Button Pressed')
lightTraffic(ledGreen, ledYellow, ledRed,
1)
else:
GPIO.output(ledGreen, 0)
GPIO.output(ledYellow,0)
GPIO.output(ledRed, 0)
```

```
except KeyboardInterrupt:
print
"You've exited the program"
finally:
GPIO.cleanup()
```