

Assignment -3
Python Programming

Assignment Date	29 September 2022
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Maximum Marks	2 Marks

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:-

Python Code for Blinking LED:

```
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  
  
#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()
```

Python code for Traffic Lights:

```
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()
```