

ASSIGNMENT-3

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Build a python code. Write python code for blinking LED and Traffic lights for Raspberry pi.

PROGRAM:

1.LED BLINKING IN PYTHON:

```
import RPi.GPIO as GPIO

from time import sleep

GPIO.setwarnings(False)

GPIO.setmode(GPIO.BOARD)

GPIO.setup(8,GPIO.OUT,initial=GPIO.LOW)

while True:

    GPIO.output(8,GPIO.HIGH)

    sleep(1)

    GPIO.output(8,GPIO.LOW)

    Sleep(1)
```

2.TRAFFIC LIGHT IN PYTHON:

```
import RPi.GPIO as GPIO

import time

import signal

import sys

GPIO.setmode(GPIO.BCM)

GPIO.setup(9,GPIO.OUT)

GPIO.setup(10,GPIO.OUT)

GPIO.setup(11,GPIO.OUT)

def allLightsOff(signal,frame):

    GPIO.output(9,False)

    GPIO.output(10,False)

    GPIO.output(11,False)
```

```
GPIO.cleanup()

sys.exit(0)

signal.signal(signal.SIGINT,allLightsOff)

while True:

    GPIO.output(9,True) #red

    time.sleep(3)

    GPIO.output(10,True)    #Red and amber

    time.sleep(1)

    GPIO.output(9,False)    #Green

    GPIO.output(10,False)

    GPIO.output(11,True)

    time.sleep(5)

    GPIO.output(11,False) #Amber

    GPIO.output(10,True)

time.sleep(2)

    GPIO.output(10,False) #Amber off (red comes on at top of loop)
```