ASSIGNMENT-3

PYTHON CODE FOR BLINKING LED AND TRAFFIC LIGHTS FOR RASPBERRY PI

THIS IS A PYTHON CODE FOR BLINKING LIGHT:

```
import time

import RPi.GPIO as GPIO        ## Import GPIO library

GPIO.setmode(GPIO.BOARD)       ## Use board pin numbering

GPIO.setup(11, GPIO.OUT)       ## Setup GPIO Pin 11 to OUT

while True:

        GPIO.output(11,True)   ## Turn on Led

        time.sleep(1)          ## Wait for one second

        GPIO.output(11,False)  ## Turn off Led

        time.sleep(1)
```

FOR TRAFFIC LIGHT:

```
import RPi.GPIO as GPIO

import time

import signal

import sys

# Setup

GPIO.setmode(GPIO.BCM)

GPIO.setup(9, GPIO.OUT)

GPIO.setup(10, GPIO.OUT)

GPIO.setup(11, GPIO.OUT)
```

```python
# Turn off all lights when user ends demo
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)
# Loop forever
while True:
    # Red
    GPIO.output(9, True)
    time.sleep(3)
    # Red and amber
    GPIO.output(10, True)
    time.sleep(1)
    # Green
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, True)
    time.sleep(5)
    # Amber
    GPIO.output(11, False)
    GPIO.output(10, True)
    time.sleep(2)
    # Amber off (red comes on at top of loop)
    GPIO.output(10, False)
```