

ASSIGNMENT – 3

GAS LEAKAGE MONITORING AND ALERTING SYSTEM IN INDUSTRIES

DOMAIN	IOT
BATCH	B4-4M6E
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MARKS	2 marks

Question:

Write python code for Blinking LED and Traffic lights for Raspberry pi.

Solution:

```
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)
```

```

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)


#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)