

IBM ASSIGNMENT-3

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PYTHON CODE FOR BLINKING LED WITH RASP PI

```
import RPi.GPIO as GPIO    #python library to work with raspberrypi gpio pins

import time                 # to use sleep time library imported

GPIO.setmode(GPIO.BCM)     # to define what type of pin mapping is used
GPIO.setwarnings(False)    # not to print GPIO warning messages

GPIO.setup(14,GPIO.OUT)    #pin gpio 14 is used

# continuous blinking of led

while True:

    print ("LED ON")

    GPIO.output (14, GPIO.HIGH)

    Time.sleep (1) #delay

    print ("LED OFF")

    GPIO.output (14, GPIO.LOW)

    Time.sleep (1) #delay
```

PYTHON CODE FOR TRAFFIC LIGHT WITH RASP PI

```
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,framer):
```

```
    GPIO.output(9,False)
```

```
    GPIO.output(10,False)
```

```
    GPIO.output(11,False)
```

```
    GPIO.cleanup()
```

```
    sys.exit(0)
```

```
    signal.signal(signal.SIGINT,allLightsOff)
```

```
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
```

```
GPIO.output(10,False)
```