

IBM ASSIGNMENT-3

Assignment Date	07 October 2022
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Student Roll Number	510119205003
Maximum Marks	2marks

ASSIGNMENT QUESTION :

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

CODE:

1.Blinking LED

```
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 lights

```
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 yellow
    GPIO.output(10,
    True) time.sleep(1)
    #Yellow
    GPIO.output(11, False)
    GPIO.output(10, True)
    time.sleep(2)
    #Yellow off(red comes on at top of loop)
    GPIO.output(10, False)
    #Green
    GPIO.output(9, False)
    GPIO.output(10, False)
    GPIO.output(11, True)
    time.sleep(5)
```