

Assignment -3
PYTHON PROGRAMMING

Assignment Date	02 october 2022
Student Name	Ms. GAYATHRI S
Student Roll Number	911019106003
Maximum Marks	2 Marks

Question-1:

Write python code for blinking LED and Traffic Lights for Raspberry pi.

Solution:

PROGRAM:

```
import RPi.GPIO as GPIO

from time import sleep

GPIO.setmode(GPIO.BOARD)

red=7

yellow=11

green=13

GPIO.setup(red, GPIO.OUT)

GPIO.setup(yellow, GPIO.OUT)

GPIO.setup(green, GPIO.OUT)

while True:

    GPIO.output(red, True)

    sleep(3)
```

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

```
GPIO.output(yellow, True)
```

```
sleep(1)
```

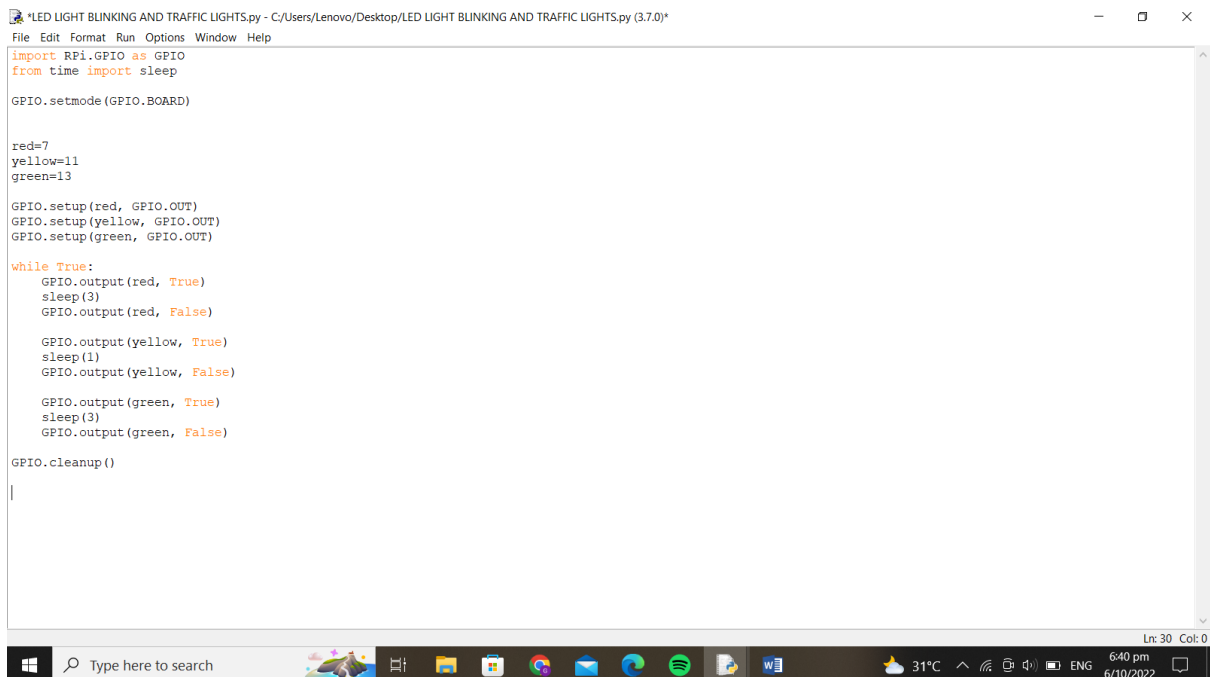
```
GPIO.output(yellow, False)
```

```
GPIO.output(green, True)
```

```
sleep(3)
```

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

```
GPIO.cleanup()
```



The image shows a screenshot of a Windows desktop with a code editor window open. The window title is "LED LIGHT BLINKING AND TRAFFIC LIGHTS.py - C:/Users/Lenovo/Desktop/LED LIGHT BLINKING AND TRAFFIC LIGHTS.py (3.7.0)". The code is a Python script for controlling three LEDs (red, yellow, green) using the RPi.GPIO library. It includes imports for GPIO and sleep, sets the GPIO mode to BOARD, and defines pin numbers for red (7), yellow (11), and green (13). The script then sets up each pin as an output and enters a while loop that turns the LEDs on and off in sequence with specific sleep durations (3s for red, 1s for yellow, 3s for green). Finally, it calls GPIO.cleanup(). The Windows taskbar at the bottom shows the time as 6:40 pm on 6/10/2022, with a temperature of 31°C and various system icons.

```
*LED LIGHT BLINKING AND TRAFFIC LIGHTS.py - C:/Users/Lenovo/Desktop/LED LIGHT BLINKING AND TRAFFIC LIGHTS.py (3.7.0)*
File Edit Format Run Options Window Help
import RPi.GPIO as GPIO
from time import sleep

GPIO.setmode(GPIO.BOARD)

red=7
yellow=11
green=13

GPIO.setup(red, GPIO.OUT)
GPIO.setup(yellow, GPIO.OUT)
GPIO.setup(green, GPIO.OUT)

while True:
    GPIO.output(red, True)
    sleep(3)
    GPIO.output(red, False)

    GPIO.output(yellow, True)
    sleep(1)
    GPIO.output(yellow, False)

    GPIO.output(green, True)
    sleep(3)
    GPIO.output(green, False)

GPIO.cleanup()
|
```