

**Assignment -3**  
Python Programming

Assignment Date	5 <sup>th</sup> October 2022
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**Question-1:**


Write python code for blinking LED and Traffic lights for Raspberry pi. Only Python code is enough, no need to execute in raspberry pi.

Note: You are allowed to use web search and complete the assignment.

**Solution:**

**Python code for blinking LED:**

```
import RPI.GPIO as GPIO
import time
GPIO.setmode(GPIO.BOARD)
GPIO.setup(3,GPIO.OUT)
while True:
    GPIO.output(3,True)
    time.sleep(1)
    GPIO.output(3,False)
    time.sleep(1)
```

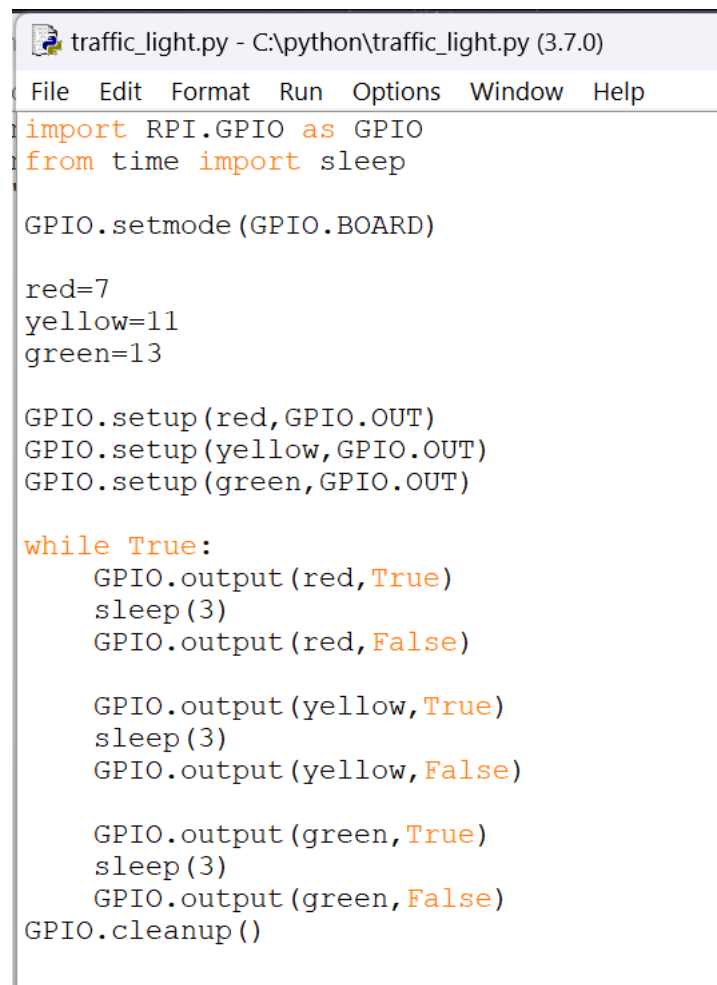
 led\_blinking\_rpi.py - C:\python\led\_blinking\_rpi.py (3.7.0)

File Edit Format Run Options Window Help

```
import RPI.GPIO as GPIO
import time
GPIO.setmode(GPIO.BOARD)
GPIO.setup(3,GPIO.OUT)
while True:
    GPIO.output(3,True)
    time.sleep(1)
    GPIO.output(3,False)
    time.sleep(1)
```

### Python code for traffic lights:

```
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(3)
    GPIO.output(yellow,False)
    GPIO.output(green,True)
    sleep(3)
    GPIO.output(green,False)
GPIO.cleanup()
```

A screenshot of a Python IDE window titled "traffic\_light.py - C:\python\traffic\_light.py (3.7.0)". The window has a menu bar with "File", "Edit", "Format", "Run", "Options", "Window", and "Help". The code editor displays the same Python code as the previous block, with syntax highlighting: keywords like "import", "from", "while", "True", "False", and "cleanup" are in orange; function names like "GPIO.output" and "GPIO.setup" are in blue; and string literals like "True" and "False" are in orange. The code is as follows:

```
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(3)
    GPIO.output(yellow,False)

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