

IBM Assignment – 3

Project Title: Real- Time River Water Quality Monitoring and Control System

IBM GitHub Repo: [IBM-EPBL/IBM-Project-29621-1660127790](https://github.com/IBM-EPBL/IBM-Project-29621-1660127790)

Team Member:-

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Question:

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

Python code 1 :

```
from gpiozero import Button, TrafficLights, Buzzer
from time import sleep
```

```
buzzer = Buzzer(15)
button = Button(21)
lights = TrafficLights(25, 8, 7)
while True:
    button.wait_for_press()
    buzzer.on()
    light.green.on()
    sleep(1)
    lights.amber.on()
    sleep(1)
    lights.red.on()
    sleep(1)
    lights.off()
    buzzer.off()
```

Python code 2:

```
import random
import time
while (1):

    a=random.randint (1,3)

    if (a>0):

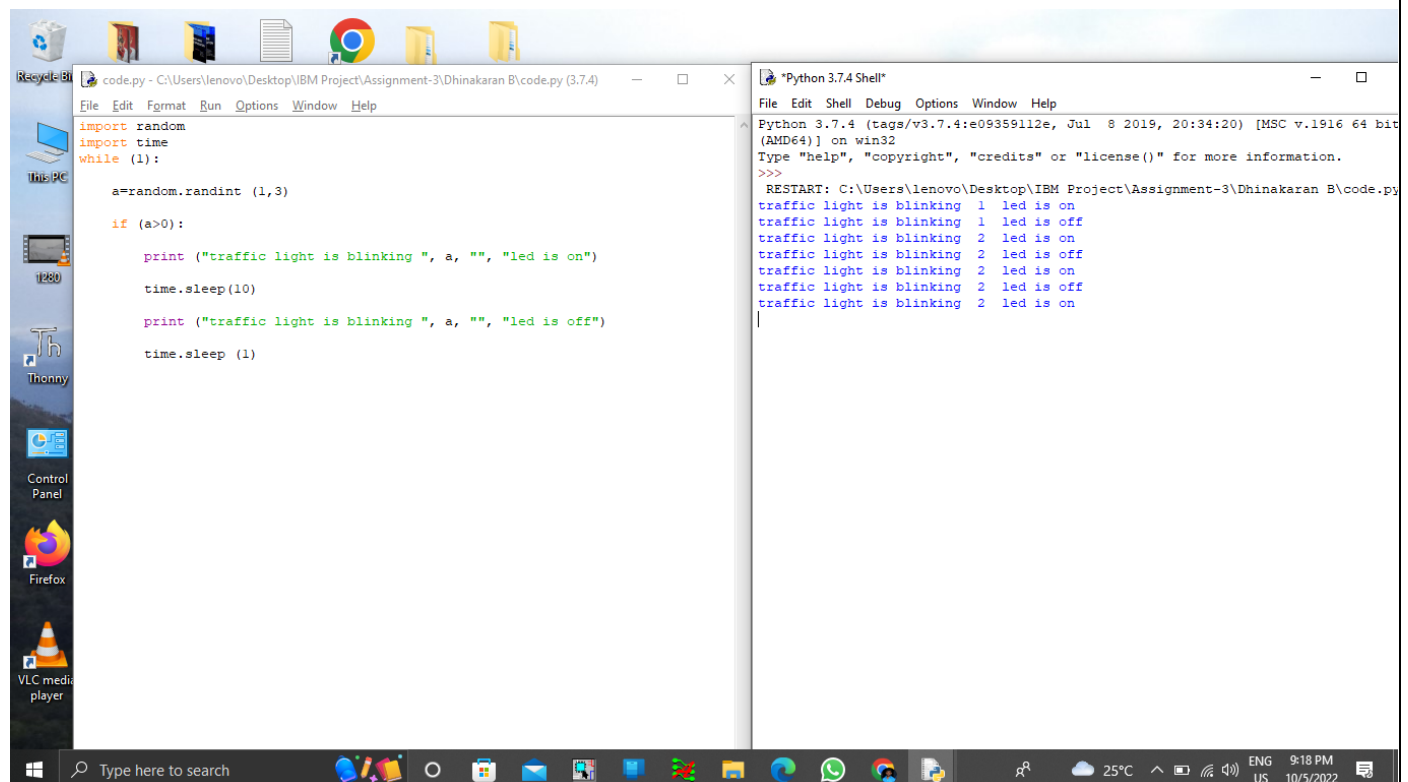
        print ("traffic light is blinking ", a, "", "led is on")

        time.sleep(10)

        print ("traffic light is blinking ", a, "", "led is off")

        time.sleep (1)
```

Output:



The screenshot displays a Windows desktop environment. On the left, the taskbar shows icons for Recycle Bin, This PC, and various applications. The main window is Thonny IDE, showing a Python script file named 'code.py' located at 'C:\Users\lenovo\Desktop\IBM Project\Assignment-3\Dhinakaran B\code.py (3.7.4)'. The script contains the following code:

```
import random
import time
while (1):

    a=random.randint (1,3)

    if (a>0):

        print ("traffic light is blinking ", a, "", "led is on")

        time.sleep(10)

        print ("traffic light is blinking ", a, "", "led is off")

        time.sleep (1)
```

To the right of the IDE is a 'Python 3.7.4 Shell' window. It shows the output of the script, which is a continuous loop of printing 'traffic light is blinking 1 led is on' followed by 'traffic light is blinking 1 led is off' after a 10-second delay, and then 'traffic light is blinking 2 led is on' followed by 'traffic light is blinking 2 led is off' after a 1-second delay. The shell window also shows the restart command and the file path.