

ASSIGNMENT III

BLINKING LED AND TRAFFIC LIGHT FOR RASPBERRY PI

PROGRAM:

```
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)
```

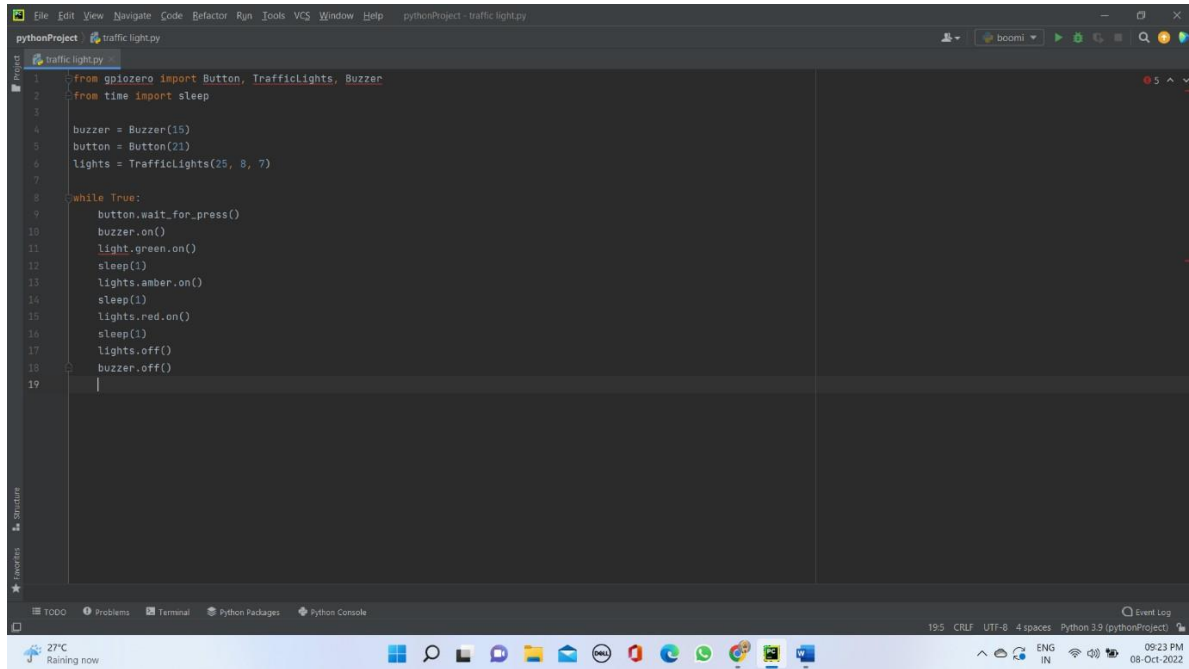
```
    lights.red.on()
```

```
    sleep(1)
```

```
    lights.off()
```

```
    buzzer.off()
```

SIMULATION:



The image shows a screenshot of a Visual Studio Code editor window. The editor is open to a file named `traffic light.py` within a project named `pythonProject`. The code is written in Python and implements a traffic light simulation using the `gpiozero` library. The script includes imports for `Button`, `TrafficLights`, and `Buzzer` from `gpiozero`, and `sleep` from `time`. It initializes a `Buzzer` on pin 15, a `Button` on pin 21, and `TrafficLights` on pins 25, 8, and 7. A `while True:` loop contains the logic for the traffic light sequence: waiting for the button press, turning the green light on, sleeping for 1 second, turning the amber light on, sleeping for 1 second, turning the red light on, sleeping for 1 second, turning all lights off, and turning the buzzer off. The status bar at the bottom indicates the file is 195 characters long, uses CRLF line endings, UTF-8 encoding, and 4 spaces for indentation. The Python version is 3.9. The system tray at the bottom shows the date and time as 09:23 PM on 08-Oct-2022, and the weather as 27°C and raining.

```
1 from gpiozero import Button, TrafficLights, Buzzer
2 from time import sleep
3
4 buzzer = Buzzer(15)
5 button = Button(21)
6 lights = TrafficLights(25, 8, 7)
7
8 while True:
9     button.wait_for_press()
10    buzzer.on()
11    light.green.on()
12    sleep(1)
13    lights.amber.on()
14    sleep(1)
15    lights.red.on()
16    sleep(1)
17    lights.off()
18    buzzer.off()
19
```