

ASSIGNMENT
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**Blinking LED and Traffic lights for Raspberry pi**

DATE	06 - 10 -2022
TEAM ID	PNT2022MID49676
PROJECT NAME	Gas Leakage Monitoring &Alerting System for Industries

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

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

**Program:**

```
import turtle
import time
wn= turtle.getscreen()
wn.title("Traffic Light")
wn.bgcolor("white")
```

```
pen= turtle.Turtle()
pen.color("black")
pen.width(4)
pen.hideturtle()
pen.penup()
pen.goto(-30, 60)
pen.pendown()
pen.fd(60)
pen.rt(90)
pen.fd(120)
pen.rt(90)
pen.fd(60)
```

```
pen.rt(90)
pen.fd(120)
```

```
red_light =turtle.Turtle()
red_light.shape("circle")
red_light.color("grey") red_light.penup()
red_light.goto(0, 40)
```

```
yellow_light =turtle.Turtle()
yellow_light.shape("circle")
yellow_light.color("grey")
yellow_light.penup()
yellow_light.goto(0, 0)
```

```
green_light =turtle.Turtle()
green_light.shape("circle")
```

```
green_light.color("grey")
green_light.penup()
green_light.goto(0, -40)
```

```
while True:
```

```
    yellow_light.color("grey")
    red_light.color("red")
    print("Red light Blinked - Now vehicle Stop behind zebra cross..")
    print("Blink!!")
    time.sleep(2)
    print("Blink!!")
```

```
    red_light.color("grey")
    green_light.color("green")
```

```
print("Green light on- Now vehicle can go..")
print("Blink!!")
time.sleep(3)
print("Blink!!")

green_light.color("grey")
yellow_light.color("yellow")
print("Yellow light Blinked- Now vehicle Ready to go..")
print("Blink!!")
time.sleep(1)
print("Blink!!")

wn.mainloop()
```

## OUTPUT:

A screenshot of a Jupyter Notebook interface. The browser address bar shows 'localhost:8888/notebooks/Documents/programs/Blinking%20Led%20and%20Traffic%20Light.ipynb'. The Jupyter Notebook title is 'Blinking Led and Traffic Light' with a 'Last Checkpoint: 11 minutes ago (unsaved changes)' note. The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Widgets, Help) and a toolbar with icons for file operations, running code, and other functions. The main area displays a code cell with the following Python code:

```
In [1]: import turtle
import time
wn= turtle.getscreen()
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pen= turtle.Turtle()
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pen.rt(90)
pen.fd(120)
pen.rt(90)
pen.fd(60)
pen.rt(90)
pen.fd(120)

red_light =turtle.Turtle()
red_light.shape("circle")
red_light.color("grey")
red_light.penup()
```

The bottom of the image shows a Windows taskbar with various icons and a system clock indicating 11:11 PM on 11/6/2022.

localhost:8888/notebooks/Documents/programs/Blinking%20Led%20and%20Traffic%20Light.ipynb

jupyter Blinking Led and Traffic Light Last Checkpoint: 10 minutes ago (unsaved changes)

File Edit View Insert Cell Kernel Widgets Help Trusted Python 3 (ipykernel)

```
print("Blink!!")
time.sleep(2)
print("Blink!!")

red_light.color("grey")
green_light.color("green")
print("Green light on- Now vehicle can go..")
print("Blink!!")
time.sleep(3)
print("Blink!!")

green_light.color("grey")
yellow_light.color("yellow")
print("Yellow light Blinked- Now vehicle Ready to go..")
print("Blink!!")
time.sleep(1)
print("Blink!!")

wn.mainloop()

Red light Blinked - Now vehicle Stop behind zebra cross..
Blink!!
Blink!!
Green light on- Now vehicle can go..
Blink!!
Blink!!
Yellow light Blinked- Now vehicle Ready to go..
Blink!!
Blink!!
Red light Blinked - Now vehicle Stop behind zebra cross..
Blink!!
```

11:11 PM 11/6/2022



