

ASSIGNMENT 3

Blinking LED and Traffic lights for Raspberry pi

DATE	06 - 10 -2022
TEAM ID	PNT2022MID49683
PROJECT NAME	Smart Crop Protection Systems IoT Based

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!!")

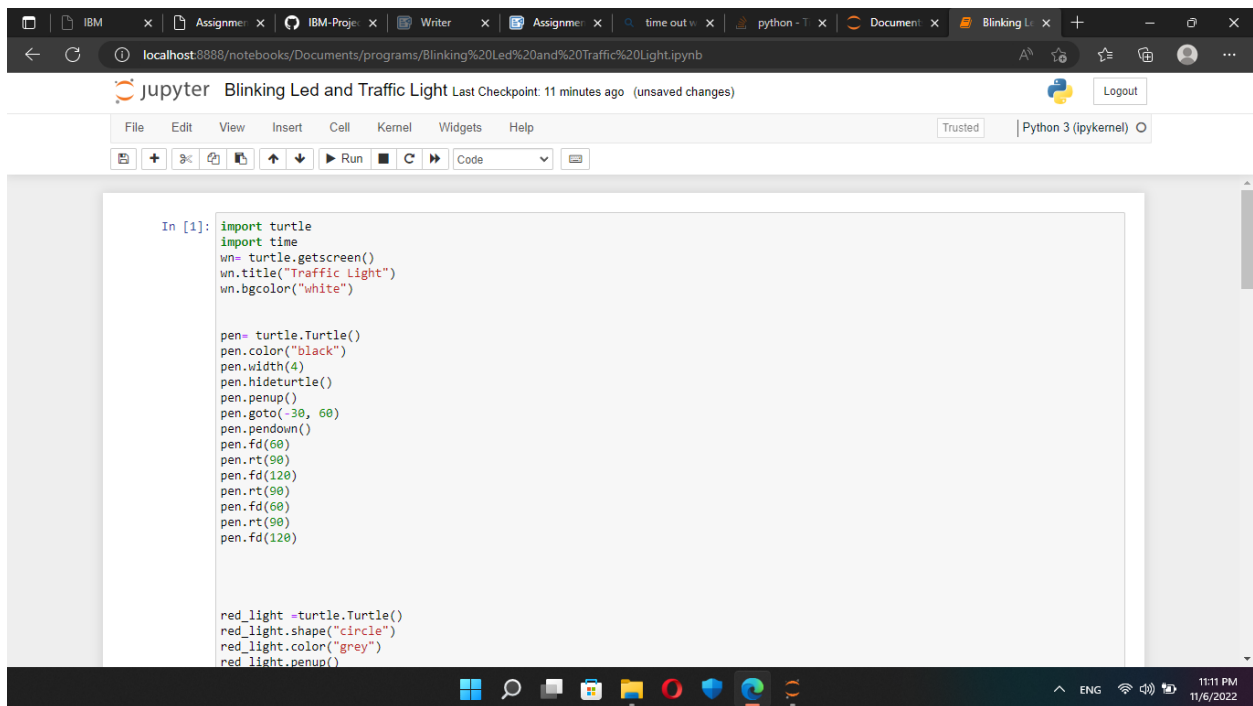
    red_light.color("grey")
    green_light.color("green")
```

```
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:



The screenshot shows a Jupyter Notebook titled "Blinking Led and Traffic Light" running on a local host. The code in the notebook defines a window with a white background and a black pen. It creates a turtle object, sets its color to black, width to 4, and hides it. The pen is moved to the top-left corner and a line is drawn. The code then creates a red light object, sets its shape to a circle, color to grey, and penup. The code is as follows:

```
In [1]: 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()
```

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!!
```

