

Assignment -3

Python Programming

Assignment Date	30 September 2022
Student Name	Akshaya M
Student Roll Number	211419106022
Maximum Marks	2 Marks

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

Code:

```
#Traffic light for raspberry pi simulating in python with GUI
```

```
import turtle

import time

wn= turtle.getscreen()

wn.title("STOPLIGHT-Akshaya M")

wn.bgcolor("black")


#gui interfrace

pen= turtle.Turtle()

pen.color("Yellow")

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
```

```
red_light=turtle.Turtle()
```

```
red_light.shape("circle")
```

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

```
red_light.penup()
```

```
red_light.goto(0, 40)
```

```
#Yellow light
```

```
yellow_light=turtle.Turtle()
```

```
yellow_light.shape("circle")
```

```
yellow_light.color("grey")
```

```
yellow_light.penup()
```

```
yellow_light.goto(0, 0)
```

```
#Green light
```

```
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!!")
```

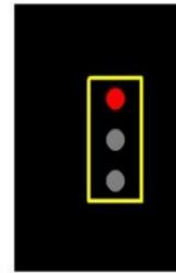
```
green_light.color("grey")  
  
yellow_light.color("yellow")  
  
print("Yellow light Blinked- Now vehicle Ready to go..")  
  
print("Blink!!")  
  
time.sleep(1)  
  
print("Blink!!")
```

```
wn.mainloop()
```

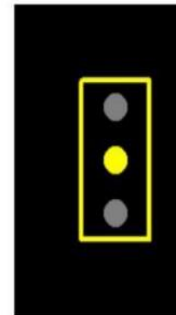
Output Screenshot:

OUTPUT WITH GUI INTERFACE

```
C:\WINDOWS\spy.exe  
Red light Blinked - Now vehicle Stop behind zebra cross..  
Blink!!
```



```
C:\WINDOWS\spy.exe  
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!!
```



```
Green light on- Now vehicle can go..  
Blink!!
```

