

Assignment – 3
Python Programming

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Question-1:

Write Python Code for blinking LED and traffic light for Raspberry pi(Only python code)

SOLUTION:

```
a=input("Enter value:")
stop_light=int(a)
while True:
    if stop_light>=1 and stop_light<=10:
        print('Green light')
        stop_light+=1
    elif stop_light<=20:
        print('Yellow light')
        stop_light+=1
    elif stop_light<=30:
        print('Red light')
        stop_light==1
    else:
        stop_light=0
break
```

output:

The screenshot shows a web browser with the Programiz Python Online Compiler. The code in `main.py` is a traffic light simulation. It prompts the user to enter a value, which represents the duration of the red light. The program then enters a loop where it prints 'Green light' and increments a counter until it reaches the user-defined value. After that, it prints 'Yellow light' and increments the counter until it reaches 30. Finally, it prints 'Red light' and increments the counter until it reaches 0, at which point it breaks the loop.

```
1 a=input("Enter value:")
2 stop_light=int(a)
3 while True:
4     if stop_light>=1 and stop_light<=10:
5         print('Green light')
6         stop_light+=1
7     elif stop_light<=20:
8         print('Yellow light')
9         stop_light+=1
10    elif stop_light<=30:
11        print('Red light')
12        stop_light+=1
13    else:
14        stop_light=0
15    break
```

The Shell output shows the execution of the program with the input value 25:

```
Enter value:25
Red light
>
```

The Windows taskbar at the bottom shows the date and time as 9:01 PM on 10/8/2022.

```
-----  
High temperature is detetcted
```

```
Buzzer on,alarm sound is high
```

```
-----  
High temperature is detetcted  
Buzzer on,alarm sound is high
```

```
-----  
High temperature is detetcted  
Buzzer on,alarm sound is high
```

```
-----  
Temprature reached maximum thershold of 30 degrees celsius
```

```
-----  
High temperature is detetcted  
Buzzer on,alarm sound is high  
High humidity is detetcted  
Buzzer on,alarm sound is high  
-----  
High temperature is detetcted
```

```
main.py  -$-  
8      print('- --- .....-')  
9      if a>46:  
  
10         print("High temperature is detetcted")  
11         print("Buzzer on,alarm sound is high")12*  
        elif a==40:  
13             print("Temprature reached maximum thershold of 40 degrees celsius")  
14*        else:  
is         print("Good temperature")  
16 #for Humidity  
17*        ie b>60 :  
18             print("High humidity is detetcted")  
19             print("Bu2zer on,alarm sound is high")  
20*        elif a == 6e:
```

Ln: 23, Col: 31



Run



Share

Command Line Arguments

```
g      High temperature is detetcted  
      Buzzer ou,aIarm sOuud is high  
      High humidity is detetcted  
      Buzzer ou,alarm sound is high
```

```
p      High temperature is detetcted  
,      Buzzer on,alarm soud is high  
      High humidity is detetcted
```