

Assignment -3
Python Programming

Assignment Date	08 october 2022
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Student Roll Number	821219104005
Maximum Marks	2 Marks

Question-1:

Write python code for blinking LED and traffic lights for raspberry pi .

Solution:

while True:

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

#for led

```
a = int(input("Enter A"))
if a > 10:
    print("LED IS BLINKING")
else:
    print("LED IS NOT BLINKING")
```

The screenshot shows an IDE with two windows. The left window, titled 'assg3333.py - C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py (3.10.7)', contains the following Python code:

```
while True:
    x = input("Enter value: ")
    traffic_light = int(x)
    if traffic_light == 30:
        break
    elif traffic_light >=1 and traffic_light <=10:
        print("Green light")
        traffic_light +=1
    elif traffic_light <=20:
        print("Yellow light")
        traffic_light +=1
    elif traffic_light <=30:
        print("Red light")
        traffic_light +=1
    else:
        traffic_light = 0
        break
#for led
a = int(input("Enter A"))
if a > 10:
    print("LED IS BLINKING")
else:
    print("LED IS NOT BLINKING")
```

The right window, titled 'IDLE Shell 3.10.7*', shows the execution output:

```
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py ===
Enter value: 24
Red light
Enter value:
```

The Windows taskbar at the bottom shows the search bar, task view, and various application icons. The system tray on the right indicates a temperature of 29°C, cloudy weather, and the date 08-10-2022.

The screenshot shows the same IDE with the same Python script in the left window. The right window, titled 'IDLE Shell 3.10.7*', shows the execution output after multiple inputs:

```
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py ===
Enter value: 24
Red light
Enter value: 14
Yellow light
Enter value: |
```

The Windows taskbar at the bottom is identical to the first screenshot, showing the search bar, task view, and system tray information (29°C, cloudy, 08-10-2022).

```
assg3333.py - C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py (3.10.7)
File Edit Format Run Options Window Help
while True:
    x = input("Enter value: ")
    traffic_light = int(x)
    if traffic_light == 30:
        break
    elif traffic_light >=1 and traffic_light <=10:
        print("Green light")
        traffic_light +=1
    elif traffic_light <=20:
        print("Yellow light")
        traffic_light +=1
    elif traffic_light <=30:
        print("Red light")
        traffic_light +=1
    else:
        traffic_light = 0
        break
#for led
a = int(input("Enter A"))
if a > 10:
    print("LED IS BLINKING")
else:
    print("LED IS NOT BLINKING")

Ln: 7 Col: 0

IDLE Shell 3.10.7
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py ===
Enter value: 24
Red light
Enter value: 14
Yellow light
Enter value: 4
Green light
Enter value: |

Ln: 11 Col: 13
```

```
assg3333.py - C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py (3.10.7)
File Edit Format Run Options Window Help
while True:
    x = input("Enter value: ")
    traffic_light = int(x)
    if traffic_light == 30:
        break
    elif traffic_light >=1 and traffic_light <=10:
        print("Green light")
        traffic_light +=1
    elif traffic_light <=20:
        print("Yellow light")
        traffic_light +=1
    elif traffic_light <=30:
        print("Red light")
        traffic_light +=1
    else:
        traffic_light = 0
        break
#for led
a = int(input("Enter A"))
if a > 10:
    print("LED IS BLINKING")
else:
    print("LED IS NOT BLINKING")

Ln: 7 Col: 0

IDLE Shell 3.10.7
Python 3.10.7 (tags/v3.10.7:6cc6b13, Sep 5 2022, 14:08:36) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
=== RESTART: C:/Users/HP/AppData/Local/Programs/Python/Python310/assg3333.py ===
Enter value: 24
Red light
Enter value: 14
Yellow light
Enter value: 4
Green light
Enter value: 30
Enter All
LED IS BLINKING
>>>

Ln: 14 Col: 0
```