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ASSIGNMENT-III

AIM:

To write a python code for blinking LED and Traffic Lights for Raspberry Pi.

SOFTWARE USED:

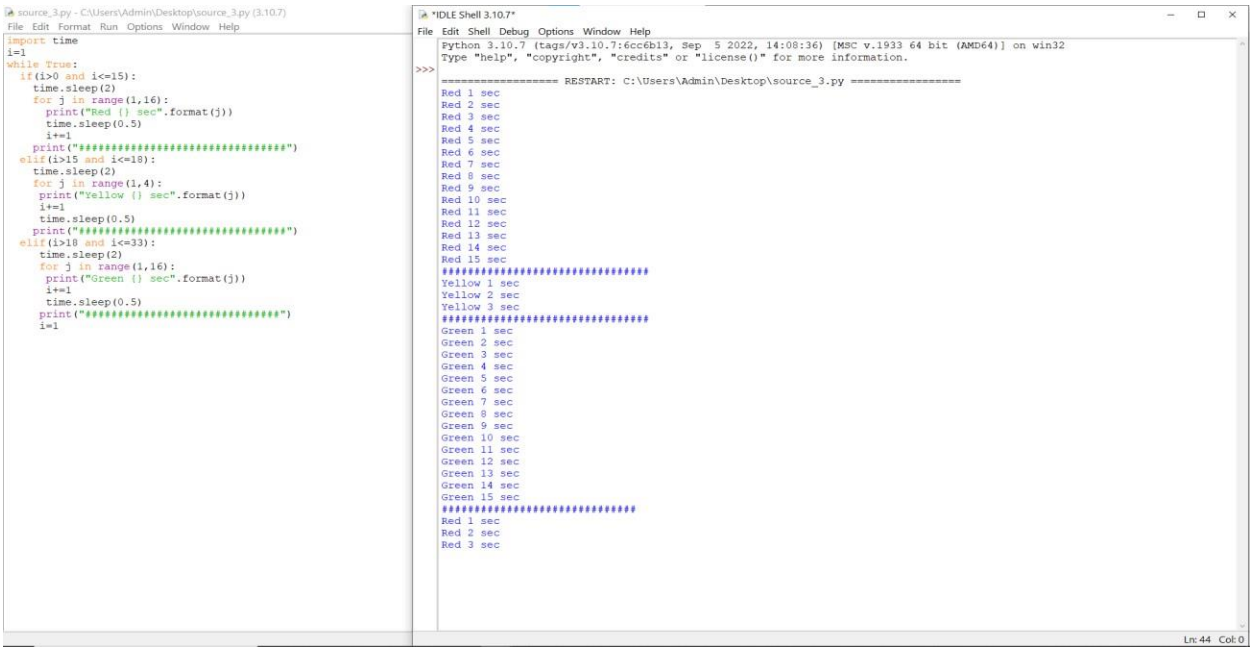
Python IDLE 3.10.7 (64 bit)

PROGRAM:

```
import time
i=1
while True:
    if(i>0 and i<=15):
        time.sleep(2)
        for j in range(1,16):
            print("Red {} sec".format(j))
            time.sleep(0.5)
            i+=1
            print("##################################")
    elif(i>15 and i<=18):
        time.sleep(2)
        for j in range(1,4):
            print("Yellow {} sec".format(j))
```

```
            i+=1
            time.sleep(0.5)
            print("##################################")
    elif(i>18 and i<=33):
        time.sleep(2)
        for j in range(1,16):
            print("Green {} sec".format(j))
            i+=1
            time.sleep(0.5)
            print("##################################")
            i=1
```

SIMULATION OUTPUT:



```
import time
i=1
while True:
  if(i>0 and i<=15):
    time.sleep(2)
    for j in range(1,16):
      print("Red {} sec".format(j))
      time.sleep(0.5)
      i+=1
    print("##################################")
  elif(i>15 and i<=18):
    time.sleep(2)
    for j in range(1,4):
     print("Yellow {} sec".format(j))
     i+=1
     time.sleep(0.5)
    print("##################################")
  elif(i>18 and i<=33):
     time.sleep(2)
     for j in range(1,16):
      print("Green {} sec".format(j))
      i+=1
      time.sleep(0.5)
     print("##################################")
     i=1
```

```
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\Admin\Desktop\source_3.py ==========
Red 1 sec
Red 2 sec
Red 3 sec
Red 4 sec
Red 5 sec
Red 6 sec
Red 7 sec
Red 8 sec
Red 9 sec
Red 10 sec
Red 11 sec
Red 12 sec
Red 13 sec
Red 14 sec
Red 15 sec
##################################
Yellow 1 sec
Yellow 2 sec
Yellow 3 sec
##################################
Green 1 sec
Green 2 sec
Green 3 sec
Green 4 sec
Green 5 sec
Green 6 sec
Green 7 sec
Green 8 sec
Green 9 sec
Green 10 sec
Green 11 sec
Green 12 sec
Green 13 sec
Green 14 sec
Green 15 sec
##################################
Red 1 sec
Red 2 sec
Red 3 sec
```

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WORKING:

1) Red Light glows for 15 seconds.
2) After timeout, Yellow Light glows after an interval (sleep) of 2 seconds.
3) Yellow Light glows for 3 seconds.
4) After timeout, device goes for 2 seconds sleep mode.
5) After sleep mode, Green Light glows for 15 seconds.
6) This process is repeated and goes for infinite cycles.

RESULT:

Thus, I have successfully compiled a python code for blinking LED and Traffic Lights for Raspberry Pi.