Assignment 2

Temperature and humidity monitoring using python

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Python code:

```
import random
def tempMonitor():
 minRoomTemp=15
 maxRoomTemp=25
 minRoomHum=30
 maxRoomHum=50
 temp = random.randint(14,26)
 humidity = random.randint(29,51)
if ((temp>=minRoomTemp)and(temp<=maxRoomTemp) and (humidity>=minRoomHum) and (humidity<=maxRoomHum)):
   print("The temperature and humidity is optimum")
   tempMonitor()
 else:
   if(temp<minRoomTemp):
     print("The temperature is too cold:"+ str(temp))
   if(humidity<minRoomHum):
     print("The humidity is low:"+ str(humidity))
   if(temp>maxRoomTemp):
     print("The temperature is too hot:"+ str(temp))
   if(humidity>maxRoomHum):
     print(" ALERT: The humidity is high:"+ str(humidity))
 return
```

tempMonitor()

IDLE OUTPUT:

```
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   if(humidity>maxRoomHum):
     print(" ALERT: The humidity is high:"+ str(humidity))
 return

tempMonitor()
```

```
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature is too hot:26

...Program finished with exit code 0
Press ENTER to exit console.
```

```
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tempMonitor()
```
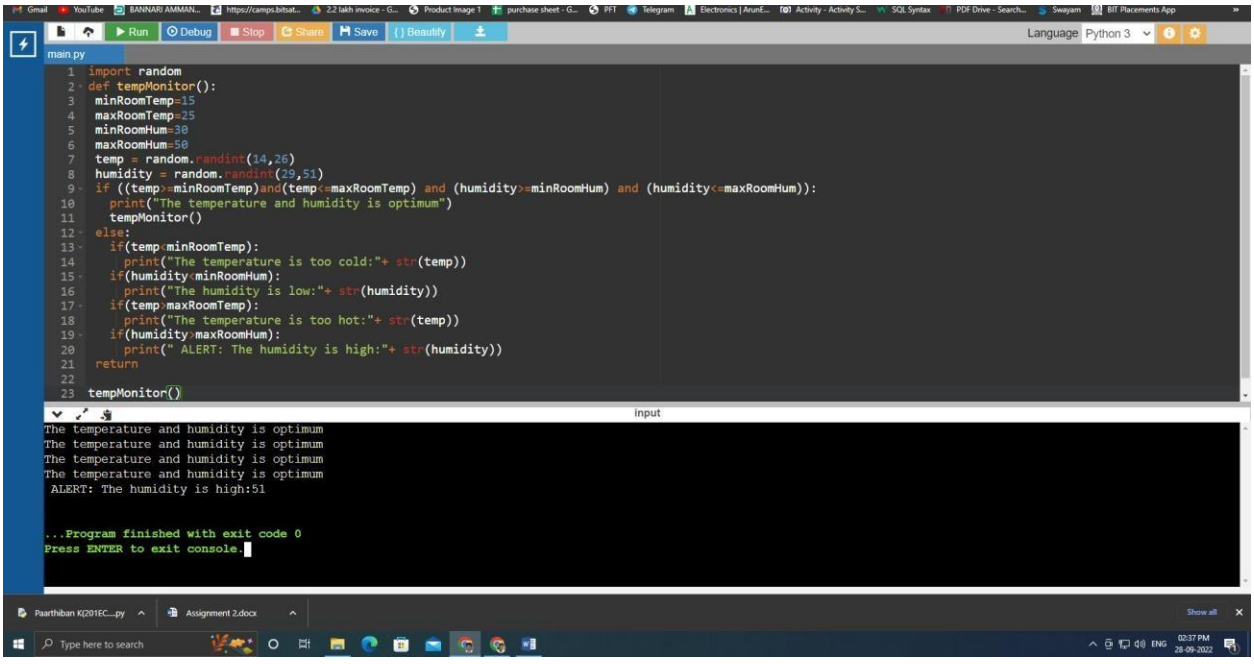

```
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature is too cold:14

...Program finished with exit code 0
Press ENTER to exit console.
```



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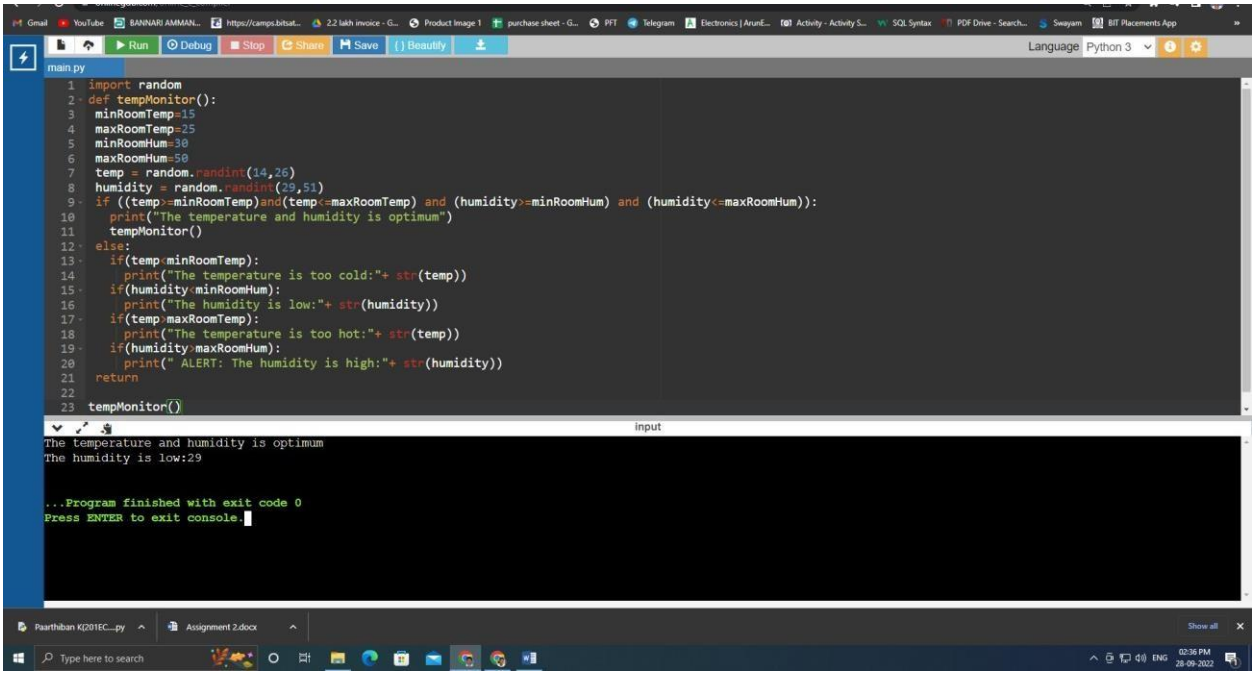
     print("The temperature is too hot:"+ str(temp))
   if(humidity>maxRoomHum):
     print(" ALERT: The humidity is high:"+ str(humidity))
 return

tempMonitor()
```

```
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
The temperature and humidity is optimum
 ALERT: The humidity is high:51


...Program finished with exit code 0
Press ENTER to exit console.
```



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     print("The temperature is too hot:"+ str(temp))
   if(humidity>maxRoomHum):
     print(" ALERT: The humidity is high:"+ str(humidity))
 return

tempMonitor()
```

```
The temperature and humidity is optimum
The humidity is low:29


...Program finished with exit code 0
Press ENTER to exit console.
```