

Assignment -2
Python programming

Assignment Date	26 September 2022
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Maximum Marks	2 Marks

Question:

Build a python code, assume you get temperature and humidity values (generated with random function to a variable) and write a condition to continuously detect alarm in case of high temperature.

Software Used:

❖ Pycharm IDE

Code:

```
import random
```

```
import time
```

```
while True:
```

```
    temperature = random.randrange(1, 100, 1) #temperature generates randomly
```

```
    humidity = random.randrange(1, 100, 1) # humidity generates randomly
```

```
    if temperature > 60:
```

```
        print("High temperature Detected ==> " + str(temperature) + u"\N{DEGREE SIGN}C = 'ALARM ON'")
```

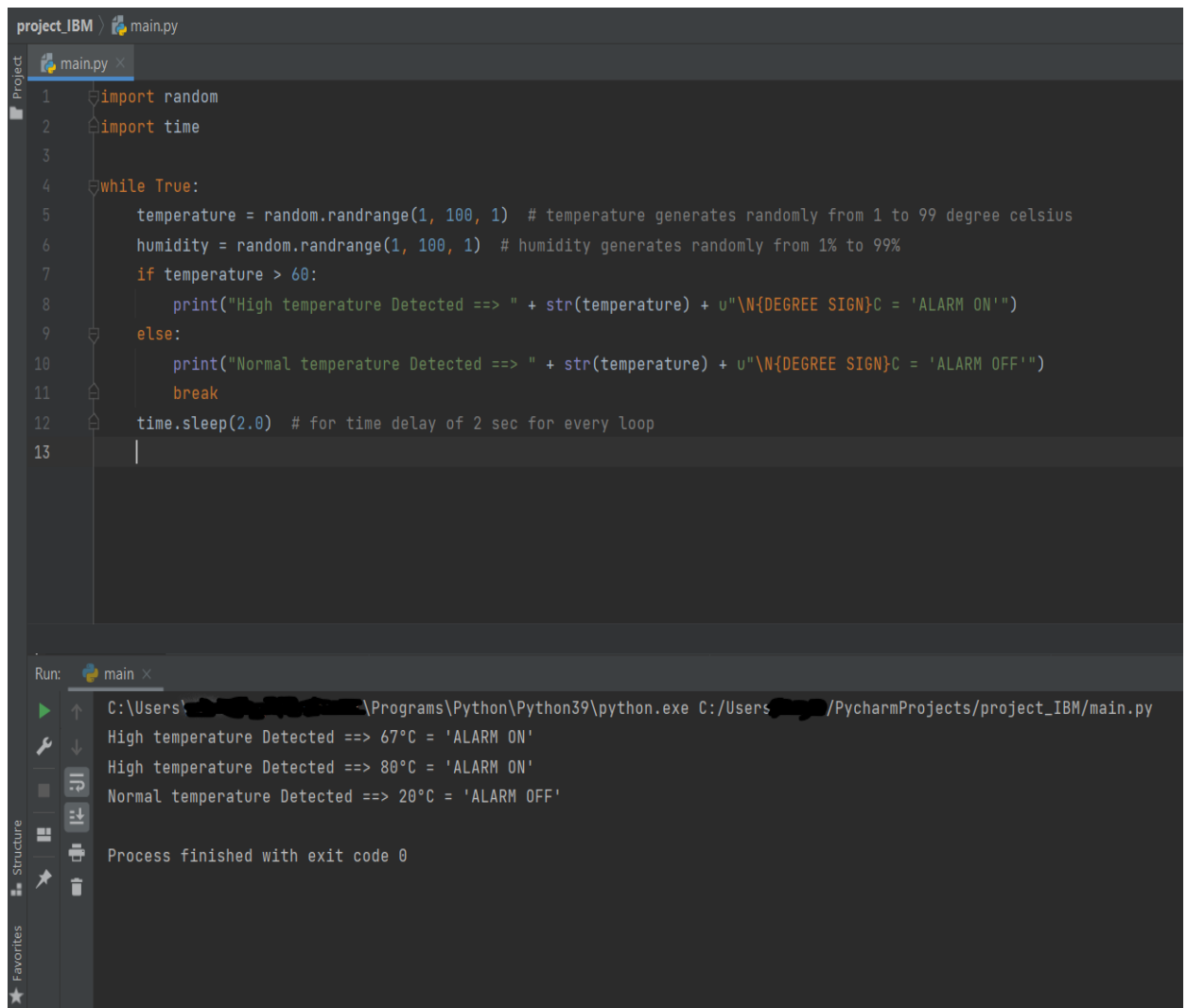
```
    else:
```

```
        print("Normal temperature Detected ==> " + str(temperature) + u"\N{DEGREE SIGN}C = 'ALARM OFF'")
```

```
        break
```

```
        time.sleep(2.0) # for time delay of 2 sec for every loop
```

Code and Output:



The screenshot displays the PyCharm IDE interface. The top pane shows a Python file named `main.py` with the following code:

```
1 import random
2 import time
3
4 while True:
5     temperature = random.randrange(1, 100, 1) # temperature generates randomly from 1 to 99 degree celsius
6     humidity = random.randrange(1, 100, 1) # humidity generates randomly from 1% to 99%
7     if temperature > 60:
8         print("High temperature Detected ==> " + str(temperature) + u"\N{DEGREE SIGN}C = 'ALARM ON'")
9     else:
10        print("Normal temperature Detected ==> " + str(temperature) + u"\N{DEGREE SIGN}C = 'ALARM OFF'")
11        break
12    time.sleep(2.0) # for time delay of 2 sec for every loop
13
```

The bottom pane shows the output of the program:

```
Run: main x
C:\Users\... \Programs\Python\Python39\python.exe C:/Users/.../PycharmProjects/project_IBM/main.py
High temperature Detected ==> 67°C = 'ALARM ON'
High temperature Detected ==> 80°C = 'ALARM ON'
Normal temperature Detected ==> 20°C = 'ALARM OFF'
Process finished with exit code 0
```