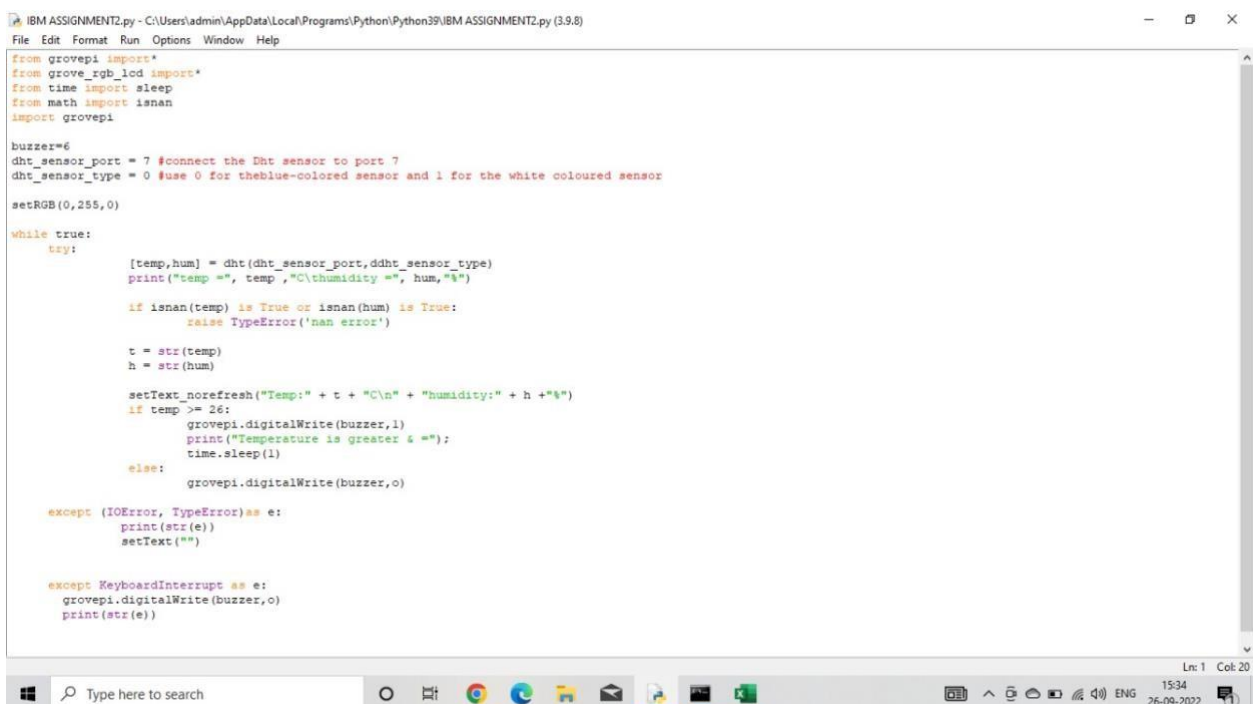


ASSIGNMENT - 2

Team ID	PNT2022TMID27689
Name	SHOBICA A
Student Roll Number	311419104069
Maximum Marks	2 Marks

Build a python code. Assume u 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



```
IBM ASSIGNMENT2.py - C:\Users\admin\AppData\Local\Programs\Python\Python39\IBM ASSIGNMENT2.py (3.9.8)
File Edit Format Run Options Window Help

from grovepi import *
from grove_rgb_lcd import *
from time import sleep
from math import isnan
import grovepi

buzzer=6
dht_sensor_port = 7 #connect the Dht sensor to port 7
dht_sensor_type = 0 #use 0 for theblue-colored sensor and 1 for the white coloured sensor

setRGB(0,255,0)

while true:
    try:
        [temp,hum] = dht(dht_sensor_port,dht_sensor_type)
        print("temp =", temp, "C\thumidity =", hum,"%")

        if isnan(temp) is True or isnan(hum) is True:
            raise TypeError('nan error')

        t = str(temp)
        h = str(hum)

        setText_norefresh("Temp:" + t + "C\n" + "humidity:" + h +"%")
        if temp >= 26:
            grovepi.digitalWrite(buzzer,1)
            print("Temperature is greater & =");
            time.sleep(1)
        else:
            grovepi.digitalWrite(buzzer,0)

    except (IOError, TypeError) as e:
        print(str(e))
        setText("")

    except KeyboardInterrupt as e:
        grovepi.digitalWrite(buzzer,0)
        print(str(e))

Ln: 1 Col: 20
```

```
IBM ASSIGNMENT2.py - C:\Users\admin\AppData\Local\Programs\Python\Python39\IBM ASSIGNMENT2.py (3.9.8)
File Edit Format Run Options Window Help

IDLE Shell 3.9.8
Python 3.9.8 (tags/v3.9.8:bb3f6dcf, Nov 5 2021, 20:48:33) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
buzzer = RESTART: C:\Users\admin\AppData\Local\Programs\Python\Python39\IBM ASSIGNMENT2.py
dht_ser
dht_ser
.py
Traceback (most recent call last):
  File "C:\Users\admin\AppData\Local\Programs\Python\Python39\IBM ASSIGNMENT2.py", line 1, in <module>
    from grovepi import *
ModuleNotFoundError: No module named 'grovepi'
>>> |
```

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.19042.1706]
(c) Microsoft Corporation. All rights reserved.

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>pip install grovepi
Collecting grovepi
  Downloading grovepi-1.0.4-py3-none-any.whl (64 kB)
    | 64 kB 306 kB/s
Collecting scipy
  Downloading scipy-1.9.1-cp39-cp39-win_amd64.whl (38.6 MB)
    | 38.6 MB 504 kB/s
Collecting numpy
  Downloading numpy-1.23.3-cp39-cp39-win_amd64.whl (14.7 MB)
    | 14.7 MB 544 kB/s
Collecting smbus-cffi
  Downloading smbus-cffi-0.5.1.tar.gz (18 kB)
Collecting pyserial
  Downloading pyserial-3.5-py2.py3-none-any.whl (90 kB)
    | 90 kB 364 kB/s
Collecting RPi.GPIO
  Downloading RPi.GPIO-0.7.1.tar.gz (29 kB)
Collecting cffi>=1.10
  Using cached cffi-1.15.1-cp39-cp39-win_amd64.whl (179 kB)
Collecting pycparser
  Using cached pycparser-2.21-py2.py3-none-any.whl (118 kB)
Using legacy 'setup.py install' for RPi.GPIO, since package 'wheel' is not installed.
Using legacy 'setup.py install' for smbus-cffi, since package 'wheel' is not installed.
Installing collected packages: pycparser, numpy, cffi, smbus-cffi, scipy, RPi.GPIO, pyserial, grovepi
  Running setup.py install for smbus-cffi ... error
  error: Command errored out with exit status 1:
   command: 'C:\Users\admin\AppData\Local\Programs\Python\Python39\python.exe' -u -c 'import io, os, sys, setuptools, tokenize; sys.argv[0] = '"'"'C:\Users\admin\AppData\Local\Temp\pip-install-y4tw5d9s\smbus-cffi_c2c3445527534d07861e4e048ae036d5\setup.py'"'; __file__='"'"'C:\Users\admin\AppData\Local\Temp\pip-install-y4tw5d9s\smbus-cffi_c2c3445527534d07861e4e048ae036d5\setup.py'"'; if __name__ == '__main__': setup()'
  Complete output (18 lines):
  running install
  running build
  running build_py
  creating build
  creating build\lib.win-amd64-3.9
  creating build\lib.win-amd64-3.9\smbus
  copying smbus\__init__.py -> build\lib.win-amd64-3.9\smbus
  copying smbus\__about__.py -> build\lib.win-amd64-3.9\smbus
  copying smbus\__init__.py -> build\lib.win-amd64-3.9\smbus
  running build_ext
```

```
Select C:\Windows\System32\cmd.exe

running build_ext
generating cffi module 'build\temp.win-amd64-3.9\Release\smbus_cffi.c'
creating build\temp.win-amd64-3.9
creating build\temp.win-amd64-3.9\Release
building 'smbus_cffi' extension
error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Build Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/

ERROR: Command errored out with exit status 1: 'C:\Users\admin\AppData\Local\Programs\Python\Python39\python.exe' -u -c 'import io, os, sys, setuptools, tokenize; sys.argv[0] = '''C:\Users\admin\AppData\Local\Temp\pip-install-y4td5d9s\smbus-cffi_c2c3445527534d07801e4e40aa036d5\setup.py'''; _file = '''C:\Users\admin\AppData\Local\Temp\pip-install-y4td5d9s\smbus-cffi_c2c3445527534d07801e4e40aa036d5\setup.py'''; if __name__ == '__main__': setup()'
WARNING: You are using pip version 21.2.4; however, version 22.2.2 is available.
You should consider upgrading via the 'C:\Users\admin\AppData\Local\Programs\Python\Python39\python.exe -m pip install --upgrade pip' command.

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>pip install --upgrade pip
'-m' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>pip install --upgrade pip
Requirement already satisfied: pip in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (21.2.4)
Collecting pip
  Downloading pip-22.2.2-py3-none-any.whl (2.0 MB)
    | 2.0 MB 44 kB/s
Installing collected packages: pip
  Attempting uninstall: pip
    Found existing installation: pip 21.2.4
    Uninstalling pip-21.2.4:
      Successfully uninstalled pip-21.2.4
ERROR: Could not install packages due to an OSError: [WinError 5] Access is denied: 'C:\Users\admin\AppData\Local\Temp\pip-uninstall-k26l7dd\pip.exe'
Consider using the '--user' option or check the permissions.

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>pip install grovepi
Collecting grovepi
  Using cached grovepi-1.0.4-py3-none-any.whl (64 kB)
Collecting pyserial
  Using cached pyserial-3.5-py2.py3-none-any.whl (90 kB)
Collecting RPi.GPIO
  Using cached RPi.GPIO-0.7.1.tar.gz (29 kB)
  Preparing metadata (setup.py) ... done
Collecting smbus-cffi
  Using cached smbus-cffi-0.5.1.tar.gz (18 kB)
  Preparing metadata (setup.py) ... done
Collecting scipy
  Using cached scipy-1.9.1-cp39-cp39-win_amd64.whl (38.6 MB)

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>
```

```
Select C:\Windows\System32\cmd.exe

Using cached grovepi-1.0.4-py3-none-any.whl (64 kB)
Collecting pyserial
  Using cached pyserial-3.5-py2.py3-none-any.whl (90 kB)
Collecting RPi.GPIO
  Using cached RPi.GPIO-0.7.1.tar.gz (29 kB)
  Preparing metadata (setup.py) ... done
Collecting smbus-cffi
  Using cached smbus-cffi-0.5.1.tar.gz (18 kB)
  Preparing metadata (setup.py) ... done
Collecting scipy
  Using cached scipy-1.9.1-cp39-cp39-win_amd64.whl (38.6 MB)
Requirement already satisfied: numpy in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (from grovepi) (1.22.3)
Requirement already satisfied: cffi>=1.1.0 in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (from smbus-cffi->grovepi) (1.15.1)
Requirement already satisfied: pycparser in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (from cffi>=1.1.0->smbus-cffi->grovepi) (2.21)
Using legacy 'setup.py install' for RPi.GPIO, since package 'wheel' is not installed.
Using legacy 'setup.py install' for smbus-cffi, since package 'wheel' is not installed.
Installing collected packages: RPi.GPIO, pyserial, scipy, smbus-cffi, grovepi
  Running setup.py install for RPi.GPIO ... error
  error: subprocess-exited-with-error

  × Running setup.py install for RPi.GPIO did not run successfully.
  | exit code: 1
  | [12 lines of output]
  | running install
  | running build
  | running build_py
  | creating build
  | creating build\lib.win-amd64-3.9
  | creating build\lib.win-amd64-3.9\RPi
  | copying RPi\__init__.py -> build\lib.win-amd64-3.9\RPi
  | creating build\lib.win-amd64-3.9\RPi\GPIO
  | copying RPi\GPIO\__init__.py -> build\lib.win-amd64-3.9\RPi\GPIO
  | running build_ext
  | building 'RPi.GPIO' extension
  | error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Build Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/
  | [end of output]

  note: This error originates from a subprocess, and is likely not a problem with pip.
error: legacy-install-failure

× Encountered error while trying to install package.
↳ RPi.GPIO

note: This is an issue with the package mentioned above, not pip.
hint: See above for output from the failure.

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>python -m pip install --upgrade pip
```

```
C:\Windows\System32\cmd.exe
error: Microsoft Visual C++ 14.0 or greater is required. Get it with "Microsoft C++ Build Tools": https://visualstudio.microsoft.com/visual-cpp-build-tools/
[end of output]

note: This error originates from a subprocess, and is likely not a problem with pip.
error: legacy-install-failure

> Encountered error while trying to install package.
-> RPi.GPIO

note: This is an issue with the package mentioned above, not pip.
hint: See above for output from the failure.

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>python -m pip install --upgrade pip
Requirement already satisfied: pip in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (22.2.2)

C:\Users\admin\AppData\Local\Programs\Python\Python39\Scripts>pip install grovepi
Collecting grovepi
  Using cached grovepi-1.0.4-py3-none-any.whl (64 kB)
Collecting scipy
  Using cached scipy-1.9.1-cp39-cp39-win_amd64.whl (38.6 MB)
Requirement already satisfied: numpy in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (from grovepi) (1.23.3)
Collecting pyserial
  Using cached pyserial-3.5-py2.py3-none-any.whl (90 kB)
Collecting RPi.GPIO
  Using cached RPi.GPIO-0.7.1.tar.gz (29 kB)
  Preparing metadata (setup.py) ... done
Collecting smbus-cffi
  Using cached smbus-cffi-0.5.1.tar.gz (18 kB)
  Preparing metadata (setup.py) ... done
Requirement already satisfied: cffi>=1.1.0 in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (from smbus-cffi->grovepi) (1.15.1)
Requirement already satisfied: pycparser in c:\users\admin\appdata\local\programs\python\python39\lib\site-packages (from cffi>=1.1.0->smbus-cffi->grovepi) (2.21)
Using legacy 'setup.py install' for RPi.GPIO, since package 'wheel' is not installed.
Using legacy 'setup.py install' for smbus-cffi, since package 'wheel' is not installed.
Installing collected packages: RPi.GPIO, pyserial, scipy, smbus-cffi, grovepi
  Running setup.py install for RPi.GPIO ... error
error: subprocess-exited-with-error

> Running setup.py install for RPi.GPIO did not run successfully.
  exit code: 1
  -> [12 lines of output]
    running install
    running build
    running build_py
    creating build
    creating build\lib.win-amd64-3.9
    creating build\lib.win-amd64-3.9\RPi
    copying RPi\__init__.py -> build\lib.win-amd64-3.9\RPi
```