Assignment -2

Python Program

| Assignment Date | 30 September 2022 |
|---------------------|-------------------|
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QUESTION -1:

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.

PROGRAM:

```
import serial
import time
import pyttsx3
import speech_recognition as sr
def takeCommand():
    r = sr.Recognizer()
    with sr.Microphone() as source:
        print("Listening...")
        r.pause_threshold = 0.5
        audio = r.listen(source)
    try:
        print("Recognizing... wait a minute")
        query = r.recognize_google(audio, language='en-in')
        print(f"User said: {query}\n")
```

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```
except Exception as e:
     # print(e)
     print("Say that again please... icannot recognizing")
     query = "none"
  return query
def speak(audio):
  engine.say(audio)
  engine.runAndWait()
engine = pyttsx3.init('sapi5')
voices=engine.getProperty('voices')
engine.setProperty("voice",voices[0].id)
engine.setProperty("rate",140)
engine.setProperty("volume",1000)
if _name_ == "_main_":
  ard = serial.Serial('com10',9600)
  time.sleep(2)
   var = 'pt'
  query=takeCommand().lower()
  if 'tell me temperature' in query:
     var ='a'
     c=var.encode()
     speak("yeah..")
  if var == 'a':
     ard.write(c)
```

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```
time.sleep(1)
iny = (ard.readline())
iny=iny.decode()
iny=str(iny)
print(iny)
speak(str(iny)+"degree centigrade is the temperature!!")
if var == 'b':
    ard.write(c)
```

OUTPUT:

```
temp = 24.0 C
                humidity = 54.0 %
temp = 24.0 C
                humidity = 54.0 %
temp = 24.0 C
                humidity = 54.0 %
temp = 24.0 C
                humidity = 50.0 %
temp = 24.0 C | humidity = 50.0 %
temp = 24.0 C
                humidity = 50.0 %
                humidity = 50.0 %
temp = 24.0 C
temp = 24.0 C
                humidity = 49.0 %
temp = 24.0 C
                humidity = 50.0 %
temp = 24.0 C
                humidity = 49.0 %
temp = 24.0 C
                 humidity = 49.0 %
temp = 24.0 C
                humidity = 49.0 %
temp = 24.0 C
                 humidity = 49.0 %
```