Project Design Phase-4

Date	26 October 2023
Team ID	467
Project Name	4123-Air Quality Monitoring
Team Name	Proj_227237_Team_1
Team Members	5

Adding New Data To The Existing Dataset

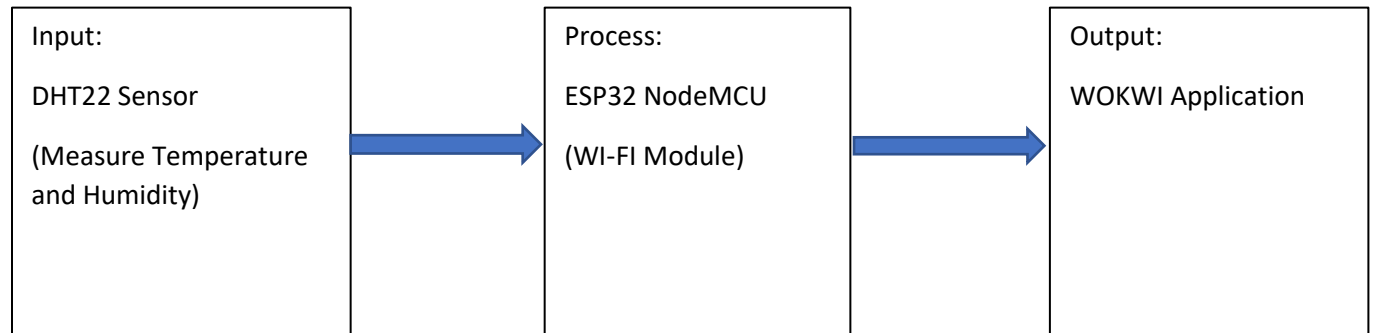**Reference: https://wokwi.com/projects/378845778645534721**

Python Code:

```python
from machine import Pin

from time import sleep

import dht

import network

sta_if = network.WLAN(network.STA_IF)

if not sta_if.isconnected():

    print('connecting to network...')

    sta_if.active(True)

    sta_if.connect('Wokwi-GUEST', "")

    while not sta_if.isconnected():

        pass

    print('network config:', sta_if.ifconfig())
```

```python
sensor = dht.DHT22(Pin(15))
while True:
 try:
   sleep(2)
   sensor.measure()
   temp = sensor.temperature()
   hum = sensor.humidity()
   temp_f = temp * (9/5) + 32.0
   print('Temperature: %3.1f C' %temp)
   print('Temperature: %3.1f F' %temp_f)
   print('Humidity: %3.1f %%' %hum)
 except OSError as e:
   print('Failed to read sensor.')
```

BLOCK DIAGRAM:

Input: DHT22 Sensor (Measure Temperature and Humidity)	→	Process: ESP32 NodeMCU (WI-FI Module)	→	Output: WOKWI Application

Output:

    connecting to network...
network config: ('10.10.0.2', '255.255.0.0', '10.0.0.1', '10.0.0.1')

Temperature: 24.0 C
Temperature: 75.2F
Humidity: 40.0 %