ENVIRONMENT MONITERING PROJECT USING PYTHON

PYTHON CODE:

pip install Adafruit\_DHT

pip install RPi.GPIO

python

import Adafruit\_DHT

import RPi.GPIO as GPIO

import time

# Pin configuration for DHT22 sensor

DHT\_SENSOR = Adafruit\_DHT.DHT22

DHT\_PIN = 4 # GPIO 4

# Pin configuration for MQ135 air quality sensor

MQ135\_PIN = 17 # GPIO 17

GPIO.setmode(GPIO.BCM)

try:

while True:

# Read temperature and humidity from DHT22 sensor

humidity, temperature = Adafruit\_DHT.read\_retry(DHT\_SENSOR, DHT\_PIN)

# Read air quality from MQ135 sensor (simulated value for demonstration)

air\_quality = GPIO.input(MQ135\_PIN) # Read digital input from MQ135 sensor

if humidity is not None and temperature is not None:

print("Temperature: {:.2f}°C, Humidity: {:.2f}%, Air Quality: {}".format(temperature, humidity, air\_quality))

else:

print("Failed to retrieve data from DHT22 sensor")

time.sleep(2) # Wait for 2 seconds before the next reading

except KeyboardInterrupt:

print("Measurement stopped by the user")

finally:

GPIO.cleanup() # Cleanup GPIO pins on program exit