**ENVIRONMENTAL MONITORING**

Environmental monitoring involves the collection of data from various sensors to measure and track environmental parameters like temperature, humidity, air quality, etc. Here's a simple Python code snippet that simulates environmental monitoring using random data for temperature, humidity, and air quality:

**PYTHON CODE:**

import random

import time

class EnvironmentalSensor:

def \_\_init\_\_(self, location):

self.location = location

def collect\_data(self):

temperature = random.uniform(15, 30) # Simulated temperature data in °C

humidity = random.uniform(30, 70) # Simulated humidity data in %

air\_quality = random.randint(0, 100) # Simulated air quality data (0-100 scale)

return {

"Location": self.location,

"Temperature (°C)": temperature,

"Humidity (%)": humidity,

"Air Quality": air\_quality,

}

def main():

sensor1 = EnvironmentalSensor("Location A")

sensor2 = EnvironmentalSensor("Location B")

while True:

data1 = sensor1.collect\_data()

data2 = sensor2.collect\_data()

print("Sensor 1 Data:")

for key, value in data1.items():

print(f"{key}: {value}")

print("\nSensor 2 Data:")

for key, value in data2.items():

print(f"{key}: {value}")

print("\n" + "-" \* 30)

time.sleep(5) # Simulate data collection every 5 seconds

if \_\_name\_\_ == "\_\_main\_\_":

main()