**IoT Development: Unlocking the Power of Connected Devices**

**CODE:**

#include <stdio.h>

#include <stdlib.h>

#include <unistd.h>

#include <time.h>

void initializeIoTDevice() {

printf("Initializing IoT device...\n");

printf("Sensors initialized.\n");

printf("Actuators initialized.\n");

printf("Communication modules initialized.\n");

}

void connectToInternet() {

printf("Connecting to the internet...\n");

printf("Wi-Fi connected.\n");

printf("IP address obtained.\n");

}

int generateRandomValue(int min, int max) {

return rand() % (max - min + 1) + min;

}

void processSensorData() {

printf("Processing sensor data...\n");

int temperature = generateRandomValue(20, 40);

printf("Temperature: %d°C\n", temperature);

int humidity = generateRandomValue(40, 80);

printf("Humidity: %d%%\n", humidity);

int pressure = generateRandomValue(900, 1100);

printf("Pressure: %dhPa\n", pressure);

if (temperature > 30) {

printf("Temperature is high. Turning on cooling fa...\n");

} else {

printf("Temperature is normal.\n");

}

}

int main() {

srand(time(NULL));

initializeIoTDevice();

connectToInternet();

int iteration = 0;

while (iteration < 10) {

printf("Iteration %d:\n", iteration + 1);

processSensorData();

sleep(1);

iteration++;

}

return 0;

}

**OUTPUT:**



