TOPIC: ENVIRONMENTAL MONITORING

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DEVELOPMENT PART 2

Continue building the project by developing the environmental monitoring platform.

Using web development technologies (e.g., HTML, CSS, JavaScript) to create a platform that displays real-time environmental data.

Designing the platform to receive and display real-time temperature and humidity data from IoT devices.

HTML :

Filename : index.html

<!DOCTYPE html>

<html lang="en">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Monitoring Platform</title>

<link rel="stylesheet" type="text/css" href="style.css">

</head>

<body>

<h1>Device Data Monitoring</h1>

<table>

<thead>

<tr>

<th>Timestamp</th>

<th>Temperature (°C)</th>

<th>Humidity (%)</th>

</tr>

</thead>

<tbody id="data-table">

<!-- Data will be dynamically added here -->

</tbody>

</table>

<script src="script.js"></script>

</body>

</html>

CSS :

filename : main.css

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 20px;

}

h1 {

text-align: center;

}

table {

width: 100%;

border-collapse: collapse;

margin-top: 20px;

}

th, td {

border: 1px solid #ddd;

padding: 8px;

text-align: center;

}

thead {

background-color: #f2f2f2;

}

tr:nth-child(even) {

background-color: #f2f2f2;

}

JAVA SCRIPT :

Filename : script.js

// Simulated data from IoT device

const simulatedData = [

{ timestamp: "2023-10-26 10:00:00", temperature: 25.5, humidity: 50.0 },

{ timestamp: "2023-10-26 11:00:00", temperature: 26.0, humidity: 51.5 },

{ timestamp: "2023-10-26 12:00:00", temperature: 24.8, humidity: 48.7 },

];

// Function to populate the data table

function populateDataTable() {

const dataTable = document.getElementById("data-table");

simulatedData.forEach(data => {

const row = document.createElement("tr");

row.innerHTML = `

<td>${data.timestamp}</td>

<td>${data.temperature}</td>

<td>${data.humidity}</td>

`;

dataTable.appendChild(row);

});

}

// Call the function to populate the data table

populateDataTable();