**IOT PHASE 4**

**SMART WATER MANAGEMENT**

**index.html**

<!DOCTYPE html>

<html>

<head>

<title>Water Conservation Platform</title>

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

</head>

<body>

<header>

<h1>Water Conservation Platform</h1>

</header>

<div class="container">

<div class="sensor-list">

<h2>Sensor Locations</h2>

<ul id="sensor-list">

<!-- Sensor locations will be added dynamically through JavaScript -->

</ul>

</div>

<div class="data-display">

<h2>Real-Time Water Consumption</h2>

<div id="water-consumption">

<!-- Water consumption data display goes here -->

</div>

<div id="conservation-tips">

<h3>Water Conservation Tips</h3>

<ul>

<li>Collect rainwater for outdoor use.</li>

<li>Install water-saving fixtures.</li>

</ul>

</div>

</div>

</div>

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

</body>

</html>

**style.css**

body {

font-family: Arial, sans-serif;

margin: 0;

padding: 0;

background-color: #f4f4f4;

}

header {

background-color: #333;

color: #fff;

text-align: center;

padding: 1em 0;

}

.container {

display: flex;

justify-content: space-around;

padding: 20px;

}

.sensor-list {

width: 30%;

background-color: #fff;

padding: 20px;

border: 1px solid #ccc;

}

.sensor-list ul {

list-style: none;

padding: 0;

}

.sensor-list li {

margin: 10px 0;

cursor: pointer;

}

.data-display {

width: 70%;

background-color: #fff;

padding: 20px;

border: 1px solid #ccc;

}

#water-consumption {

/\* Add styles for water consumption data display here \*/

}

h2 {

font-size: 20px;

}

#conservation-tips {

border: 2px solid green;

background-color: #ccffcc;

padding: 10px;

border-radius: 5px;

margin-top: 20px;

}

**script.js**

document.addEventListener("DOMContentLoaded", function () {

let useRealData = true; // Set to true to fetch real data, or false to simulate data

// Function to fetch real sensor data (water consumption)

function fetchSensorData() {

fetch('https://your-real-data-source.com/sensors')

.then(response => response.json())

.then(data => {

updateSensorDisplay(data); // Update the sensor display with real data

})

.catch(error => {

console.error('Error fetching real sensor data: ' + error);

// If there's an error, fall back to simulating data

useRealData = false;

simulateSensorData();

});

}

// Function to simulate sensor data (water consumption)

function simulateSensorData() {

const sensors = [

{ name: "Sensor 1", location: "Location A", waterConsumption: Math.random() \* 100 },

{ name: "Sensor 2", location: "Location B", waterConsumption: Math.random() \* 100 },

];

updateSensorDisplay(sensors);

}

// Function to update the sensor display with data

function updateSensorDisplay(sensors) {

const sensorList = document.getElementById("sensor-list");

// Clear the existing sensor list

sensorList.innerHTML = '';

sensors.forEach(sensor => {

const li = document.createElement("li");

li.textContent = sensor.name;

li.addEventListener("click", () => displayWaterConsumption(sensor));

sensorList.appendChild(li);

});

}

// Display water consumption data for a selected sensor

function displayWaterConsumption(sensor) {

const waterConsumptionDisplay = document.getElementById("water-consumption");

waterConsumptionDisplay.innerHTML = `<h3>${sensor.name} - ${sensor.location}</h3><p>Water Consumption: ${sensor.waterConsumption} gallons</p>`;

}

// Determine whether to use real data or simulate data

if (useRealData) {

fetchSensorData(); // Fetch real data

} else {

simulateSensorData(); // Simulate data

}

});