<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

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

    <title>Smart Farming Dashboard</title>

    <style>

        body {

            font-family: Arial, sans-serif;

            text-align: center;

            background-color: #f4f4f4;

            padding: 20px;

        }

        .container {

            background: white;

            padding: 20px;

            border-radius: 10px;

            box-shadow: 0px 0px 10px rgba(0, 0, 0, 0.1);

            max-width: 400px;

            margin: auto;

        }

        h2 {

            color: #2c3e50;

        }

        .sensor {

            font-size: 18px;

            margin: 10px 0;

        }

        .status {

            font-weight: bold;

        }

        .good { color: green; }

        .warning { color: orange; }

        .danger { color: red; }

    </style>

</head>

<body>

    <div class="container">

        <h2>🌱 Smart Farming Dashboard 🚜</h2>

        <div class="sensor">🌡️ Temperature: <span id="temperature" class="status">--</span>°C</div>

        <div class="sensor">💧 Humidity: <span id="humidity" class="status">--</span>%</div>

        <div class="sensor">🌿 Soil Moisture: <span id="soil\_moisture" class="status">--</span>%</div>

        <div class="sensor">☀️ Light Intensity: <span id="light\_intensity" class="status">--</span> LUX</div>

        <div class="sensor">🌫️ CO₂ Level: <span id="co2\_level" class="status">--</span> ppm</div>

        <div class="sensor">🌧️ Rain Detected: <span id="rain\_detected" class="status">--</span></div>

        <div class="sensor">🚜 Irrigation Status: <span id="irrigation\_status" class="status">--</span></div>

        <div class="sensor">💡 Light Status: <span id="light\_status" class="status">--</span></div>

        <div class="sensor">🏭 Air Quality: <span id="air\_quality\_status" class="status">--</span></div>

    </div>

    <script>

        function generateSensorData() {

            let temperature = (Math.random() \* (35 - 15) + 15).toFixed(2);

            let humidity = (Math.random() \* (80 - 40) + 40).toFixed(2);

            let soilMoisture = (Math.random() \* (60 - 20) + 20).toFixed(2);

            let lightIntensity = (Math.random() \* (1000 - 100) + 100).toFixed(0);

            let co2Level = (Math.random() \* (500 - 200) + 200).toFixed(0);

            let rainDetected = Math.random() > 0.5 ? "Yes" : "No";

            let irrigationStatus = Math.random() > 0.5 ? "On" : "Off";

            let lightStatus = Math.random() > 0.5 ? "On" : "Off";

            let airQualityStatus = Math.random() > 0.5 ? "Good" : "Poor";

            document.getElementById("temperature").textContent = temperature;

            document.getElementById("humidity").textContent = humidity;

            document.getElementById("soil\_moisture").textContent = soilMoisture;

            document.getElementById("light\_intensity").textContent = lightIntensity;

            document.getElementById("co2\_level").textContent = co2Level;

            document.getElementById("rain\_detected").textContent = rainDetected;

            document.getElementById("irrigation\_status").textContent = irrigationStatus;

            document.getElementById("light\_status").textContent = lightStatus;

            document.getElementById("air\_quality\_status").textContent = airQualityStatus;

            // Apply colors based on conditions

            document.getElementById("temperature").className = temperature > 30 ? "status danger" : "status good";

            document.getElementById("humidity").className = humidity < 50 ? "status warning" : "status good";

            document.getElementById("soil\_moisture").className = soilMoisture < 30 ? "status warning" : "status good";

            document.getElementById("air\_quality\_status").className = airQualityStatus === "Poor" ? "status warning" : "status good";

        }

        setInterval(generateSensorData, 2000); // Update data every 2 seconds

        generateSensorData(); // Initial call

    </script>

</body>

</html>

