

# ENVIRONMENTAL MONITORING

phase 4- development part 1 - continue

## INTRODUCTION:

Environmental monitoring of temperature and humidity using IoT (Internet of Things) technology has become increasingly prevalent due to its cost-effectiveness, scalability, and ability to provide real-time data.

## IOT SENSORS:

Small, low-cost IoT sensors equipped with temperature and humidity sensors (like DHT22, DHT11, or more advanced sensors) are deployed in the environment to capture data.

## HTML CODE:

```
<!DOCTYPE html>
<html>
<head>
  <title>Environmental Data Platform</title>
</head>
<body>
  <section id="temperature">
    <h2>Temperature</h2>
    <p id="temperature-value">Loading...</p>
  </section>
  <section id="humidity">
    <h2>Humidity</h2>
    <p id="humidity-value">Loading...</p>
  </section>
</body>
</html>
```

javascript:

```
// Function to update temperature and humidity
function updateData() {
  fetch('your-iot-device-endpoint')
    .then(response => response.json())
    .then(data => {
      document.getElementById('temperature-
value').textContent = data.temperature + ' °C';
      document.getElementById('humidity-
value').textContent = data.humidity + ' %';
    });
}

// Update data every 5 seconds
setInterval(updateData, 5000);
```

## IoT Device integration:

Ensure your IoT devices are sending data to the designated endpoint that the platform can fetch. You may need to set up IoT hardware and software to gather the environmental data.

## Real time monitoring:

Users can access real-time temperature and humidity data through web or mobile applications. Data can be presented in a user-friendly interface, such as charts and graphs, and alerts can be set up for out-of-range conditions.

## CONCLUSION:

IoT environmental monitoring  
contributes to the understanding of climate change and  
plays a role in environmental conservation efforts