ENVIRONMENTAL MONITORING

Definition:

The project involves setting up IoT devices to monitor environment conditions in public parks, including temperature and humidity. The primary objective is to provide real-time environment data to park visitors through a public platform, enabling them to plan their outdoor activities accordingly. This project includes defining objectives, designing the IoT sensor system, developing the environmental monitoring platform, and integrating them using IoT technology and python.

Design thinking:

1. **Project Objectives:** This system is a real-time monitoring device that determines the real-time temperature and humidity of the park environment. The measurements should be uploaded to the cloud application by regular interval. This will be made to visible to the visitors, this made the visitors to know about the conditions of park and able to choose right time visit the park.

2. **IoT device design:** The plan is to check the temperature and humidity of the park for the visitors use. In this project we use DHT11 sensor to detect the real-time readings of the temperature and humidity. We fix the sensor within the park at some particular distance. It will helpful to detect the sensor temperature and humidity of the park.

3. **Environmental Monitoring Platform:** The real-time measurements of the DHT11 sensors should be uploaded to the web page in regular interval. This information should be visible to the visitors for their convenience.

4. **Integrated Approach:** DHT11 sensor will send its data to the IoT device that has been connected with the sensor. IoT devices receives the data from the sensor and send it to the web page for visitors usage.