**Project 3: Flood Monitoring System**

**Phase 1: Problem Definition and Design Thinking**

In this part you will need to understand the problem statement and create a document on what have you understood and how will you proceed ahead with solving the problem. Please think on a design and present in form of a document.

**Project Definition:**The project involves deploying IoT sensors near water bodies and flood-prone areas to monitor water levels and provide early flood warnings through a public platform. The objective is to enhance flood preparedness and response by issuing timely warnings to both the public and emergency response teams. This project includes defining objectives, designing the IoT sensor network, developing the warning platform, and integrating them using IoT technology and Python.

**Design Thinking:**

1. Project Objectives: Define objectives such as real-time flood monitoring, early warning issuance, public safety, and emergency response coordination.
2. IoT Sensor Network Design: Plan the deployment of IoT sensors to monitor water levels in flood-prone areas.
3. Early Warning Platform: Design a web-based platform to display real-time water level data and issue flood warnings.
4. Integration Approach: Determine how IoT sensors will send data to the early warning platform.