

Project Design Phase-I Solution Architecture

Date	23 September 2022
Team ID	PNT2022TMID29114
Project Name	Smart-Agricultural
Maximum Marks	4 Marks

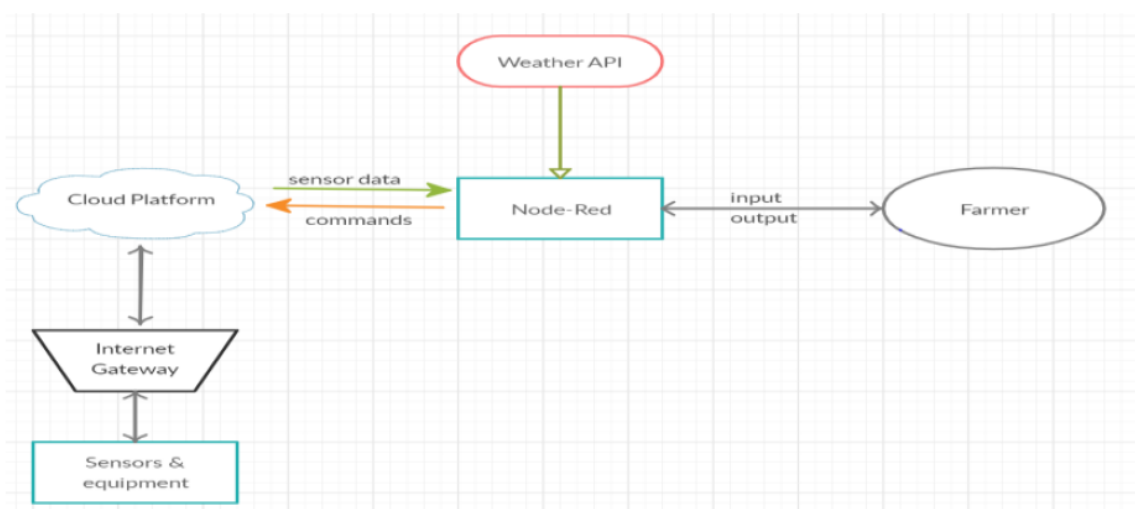
Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals are to:

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Example - Solution Architecture Diagram:

Project Design Phase - I Solution Architecture



The different soil parameters (temperature, humidity, Soil Moisture) are sensed using different sensors, and the obtained value is stored in the IBM cloud.

Node-red is used as a programming tool to wire the hardware, software, and APIs. The MQTT protocol is followed for communication.

All the collected data are provided to the user through a mobile application. The user could make a decision through an app, whether to water the crop or not depending upon the sensor values. By using the app they can remotely operate the motor switch.