Project Design Phase-I
Solution Architecture

Date	19 September 2022
Team ID	PNT2022TMID21802
Project Name	Project – Smart farmer-IoT enabled smart farming application.
Maximum Marks	4 Marks

Solution Architecture:

- Aurdino UNO is used as a processing Unit that process the data obtained from the sensors and whether data from the weather API.
- All the collected data are provided to the user through a mobile application that was developed using the MIT app inventor.
- The user could make a decision through an app, weather to water the crop or not depending upon the sensor values.
- By using the app they can remotely operate to the motor switch.
- In the era of Big data, data-driven farming is changing the agricultural businesses thanks to the use of modern technologies such as the Internet of Things (IoT) sensors, drones, and farm monitoring.
- IoT devices produce a massive amount of precious agri-data, which are collected and analyzed in real-time using innovative application tools.
- This combination of technology, known as “Smart farming”, helps various stakeholders in the agri-ecosystem to monitor crops in real-time, as well as maximize productivity and profitability in farm and business operations with the minimum efforts
- The framework introduces a general architecture to address the challenges of acquisition, processing, storing, and visualization of very large amounts of data, both in batch and real-time basis.
- An initial prototype has been developed and tested with various farms showing prominent results.

Example - Solution Architecture Diagram: