Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	15 October 2022
Team ID	PNT2022TMID39922
Project Name	Smart Farming
Maximum Marks	4 Marks

Technical Architecture

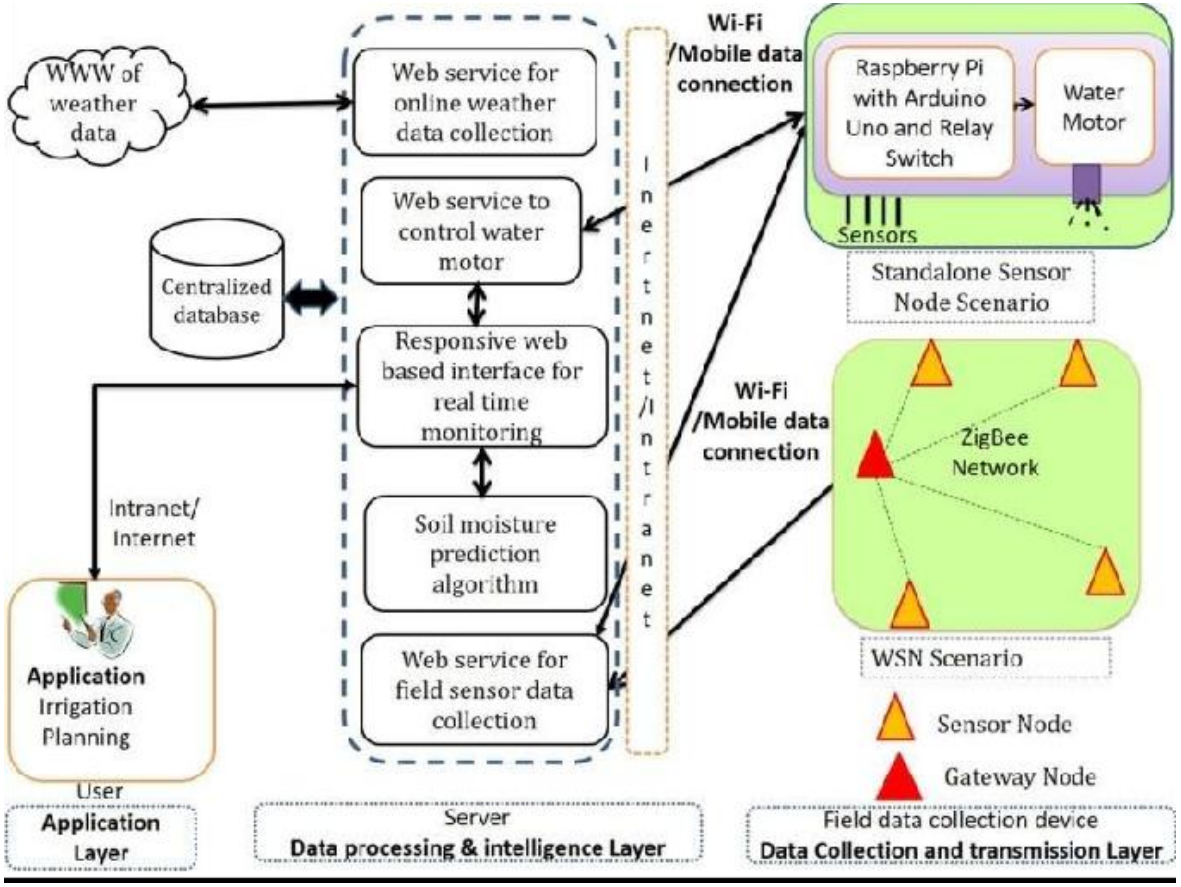

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Irrigation Planning	The Layout consist of documents such as irrigation system layout	Gravity Fed, Pressurized
2.	Intelligence Layer	The Intelligence layer is the part of digital powerful analytics platform	Machine Learning, Computer vision
3.	Soil Moisture	It is a total amount of water including the water vapor including saturated soil	Water filled tubes, Vacuum gauge
4.	Real Time Monitoring	Soil moisture management give better crops	Process of Remoting, Distribution location
5.	Service to control	Soil moisture control to ensure optical plant growth	Enhanced services, Customer service experience
6.	Data Collection	Data collection is a process of gathering and measuring information on crops	Smart Cards, Bluetooth, Mobile Phones
7.	Data Processing	Data processing is a manipulation of data slow through the output devices	Memory to output devices, perform defined operations include under data processing
8.	Transmission Layer	The process of transformation that performs to functions processing and indexing	Error control synchronization and multiplexing
9.	Prediction Algorithm	Algorithm exploits the entire interaction data set its current into a new structure	Machine Learning modeling and statistics
10.	Data Connection	Data connection handles transmission errors	Predictive analytics
11.	Sensor Node	It is a interconnected distributed using sensors and interact with their surrounding environment	Collect information transmit the collected data

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Original Source code modified according to the requirement of the user	Technology of Opensource framework
2.	Security Implementations	Data Protection Information security team	e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.
3.	Scalable Architecture	The system handles a growing amount of work by adding resources	Technology used

S.No	Characteristics	Description	Technology
4.	Availability	Management concept focused on providing the agriculture technology	Technology used
5.	Performance	Performance objective should be specific achievable organization goals	Technology used