PROJECT DESIGN PHASE-II

TECHNOLOGY ARCHITECTURE

TEAM:PNT2022TMID34125

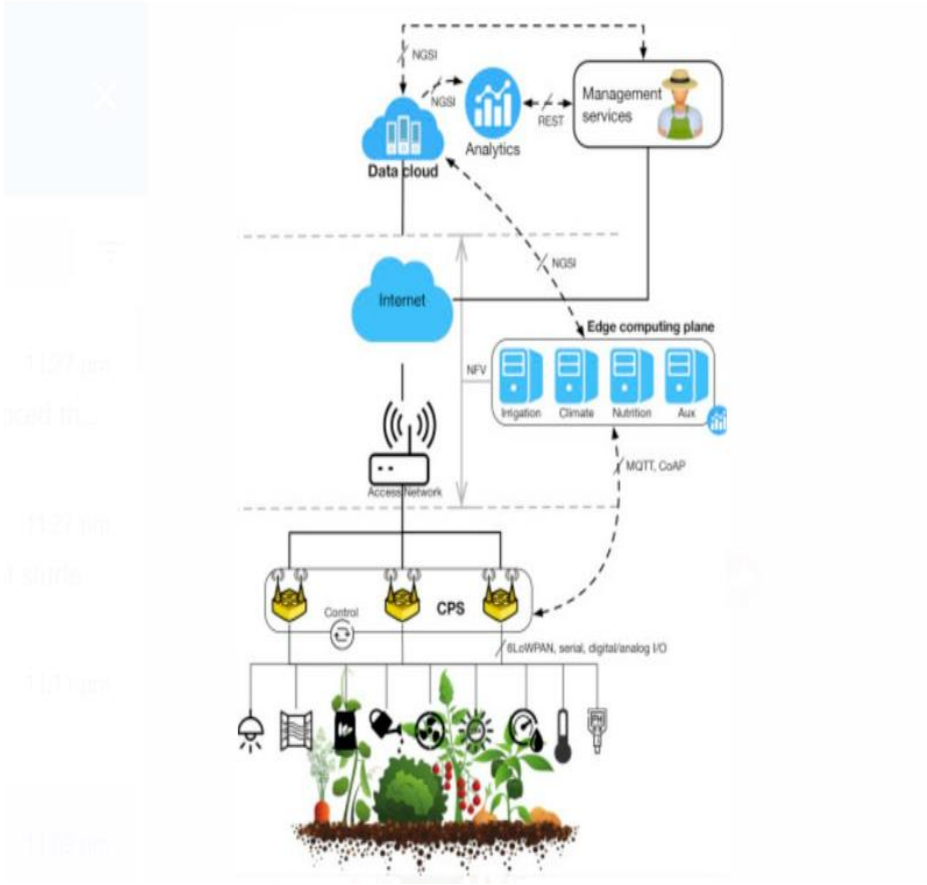

Table 1:

Components and Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chat box etc.	HTML, CSS, JavaScript etc.
2.	Application Logic-1	Logic for a process in the application	Java / Python
3.	Application Logic-2	Logic for a process in the application	IBM Watson STT service
4.	Application Logic-3	Sensor ,gateway are connected to Watson IOT platform	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	MySQL, NSQL, etc.
6.	Cloud Database	From Watson IOT platform data are sent securely upto the cloud using the open, light weight MQTT	IBM DB2, IBM Cloud etc.
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local File system
8.	External API-1	APIs are used so that your apps can access and use your live and historical data	IBM Weather API, etc.
9.	External API-2	Purpose of External API used in the application	Aadhar API, etc.
10.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.

11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server	Local, Cloud Foundry ,etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source framework used Tinkercard	Technology of open source framework Arduino, Node-Red
2.	Security Implementations	Segment which data and networks IoT devices can access, and use firewalls to stop intrusions	Node-Red, open weather App API, Firewall
3.	Scalable Architecture	Scalability will be key ton handling the explosive growth in the IoT.	Developing Microservices Architecture, Adopting multi data storage technology
4.	Availability	Automatic adjustment of farming equipment is made possible by linking information like weather and equipment to auto adjust temperature ,humidity etc..	IBM Watson services
5.	Performance	Idea of implementing integrated sensors with sensing soil and environmental in farming will be more	IBM Watson services

		efficient for overall monitoring	