Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	22 October 2022
Team ID	PNT2022TMID26021
Project Name	Project – Smart Farmer-IOT enabled smart farming application.
Maximum Marks	4 Marks

Technical Architecture:

Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

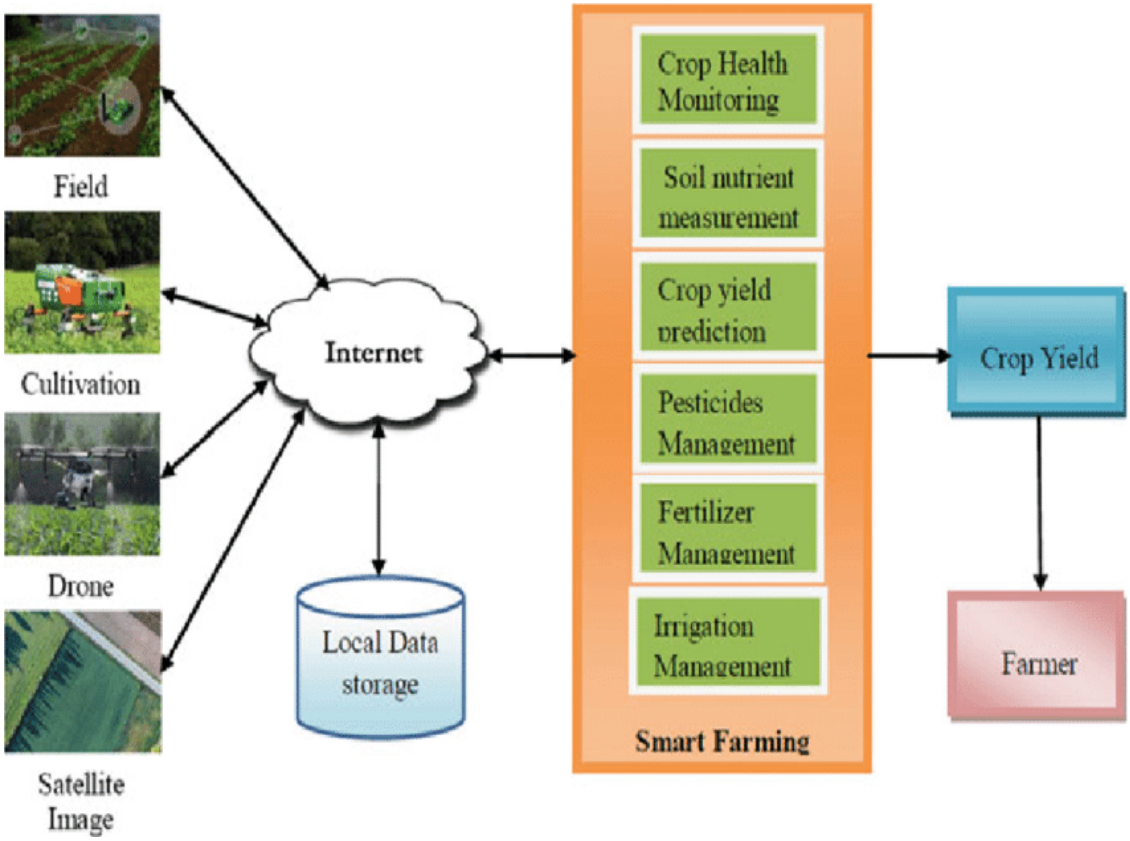

Table- 1 : Components & Technologies:

S.NO	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web	MIT App Inventor
2.	Application Logic-1	Logic for a process in the application	IBM Watson IOT service
3.	Application Logic-2	Logic for a process in the application	IBM Watson IOT service
4.	Application Logic-3	Logic for a process in the application	IBM Watson Assistant
5.	Database	Data Type, Configurations etc.	My SQL , No SQL, etc.
6.	Cloud Database	Technology of Open source framework	IBM Cloud
7.	File Storage	File storage requirements	IBM Block Storage or Other Storage Service or Local File system
8.	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, etc

Table-2: Application Characteristics:

S.NO	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Open source framework
2.	Scalable Architecture	Scalability is a major concern for IOT platforms. It has been shown that different architectural choices of IOT platforms affect system scalability and that automatic real time decision-making is feasible in an environment composed of dozens of thousand	Technology used

References:

https://c4model.com/
https://developer.ibm.com/patterns/online-order-processing-system-during-pandemic/
https://www.ibm.com/cloud/architecture/