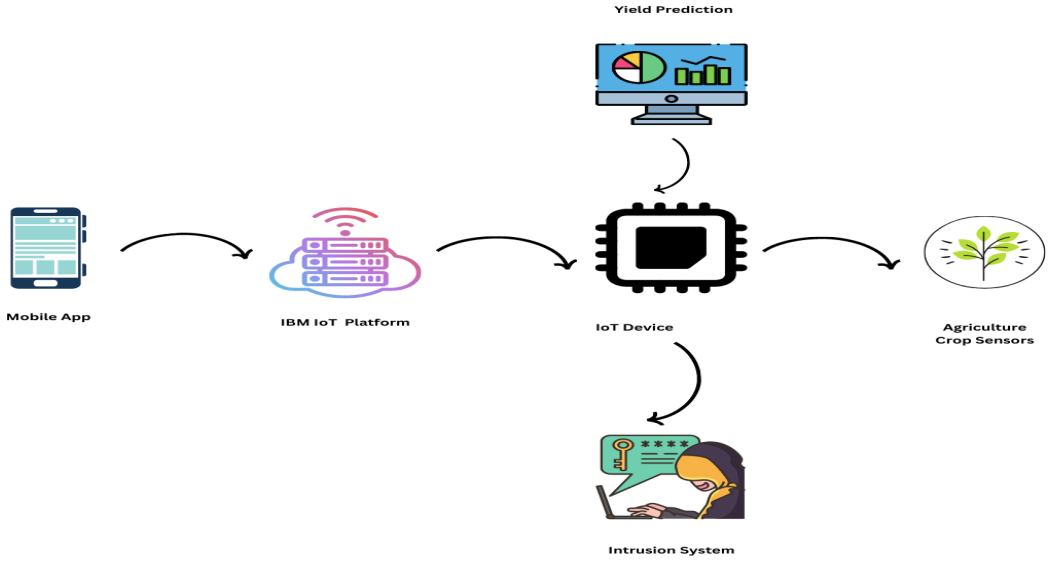
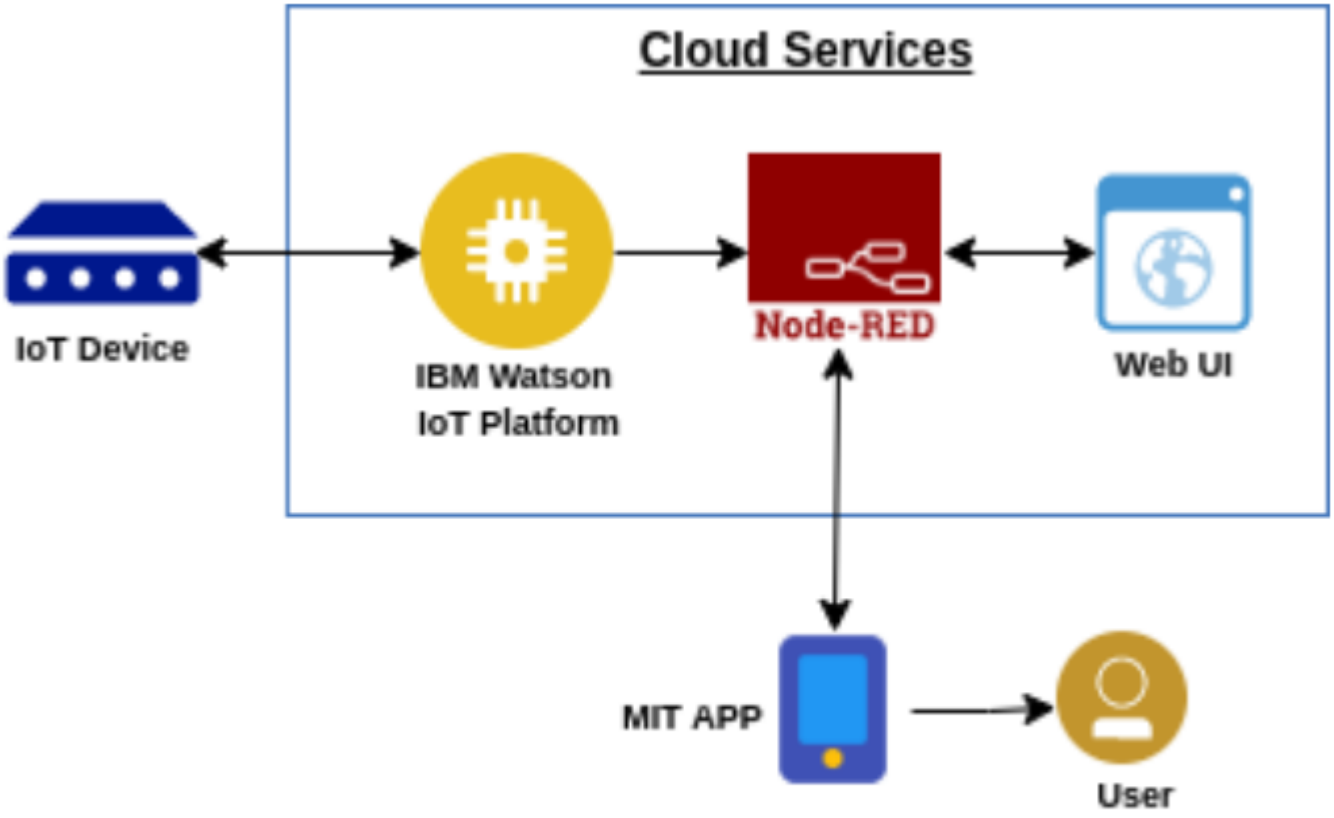
Project Design Phase-II
Data Flow Diagram & User Stories

Date	03 October 2022
Team ID	PNT2022TMID00408
Project Name	SmartFarmer - IoT Based Smart Farming Application
Maximum Marks	4 Marks

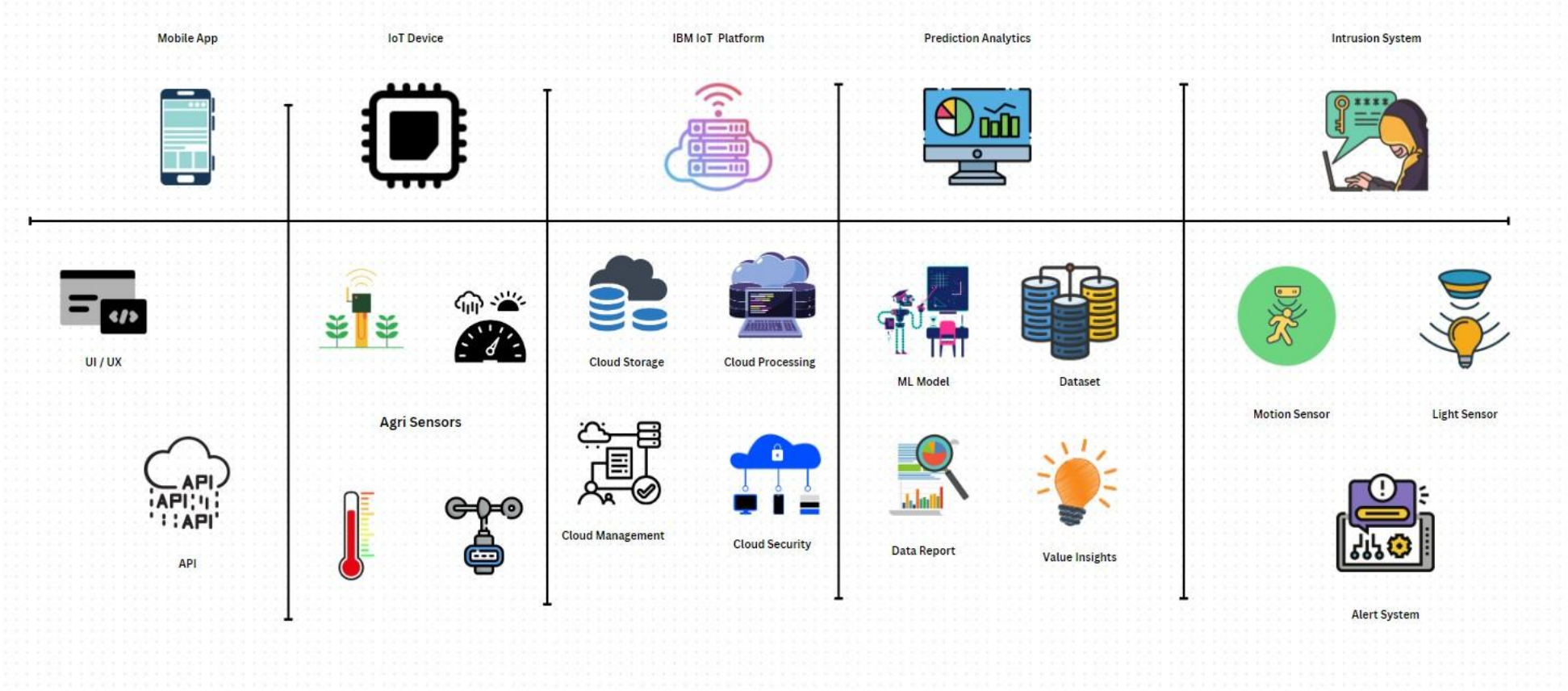
Data Flow Diagram:



Technical Architecture Diagram:



Technology stack used :



Data flow description :

- ➔ Necessary code for collecting parametric data from IoT devices has been written.
- ➔ IoT devices are connected with the IBM Watson IoT platform for gathering, processing and managing data.
- ➔ Node-Red service connects every functionalities like IoT platform, web app, cloud services and IoT devices.
- ➔ REST API is used for communication between devices.
- ➔ The web application is deployed on IBM Cloud for efficiency.
- ➔ The IoT device acts as a central device for collecting data related to crops and its field. This device acts as a pipeline for data streaming and processing of crops.
- ➔ The data collected from the IoT device is transferred to IBM IoT platform for data cleaning, processing and other functionality satisfaction.
- ➔ Based on the Crop data collected from the fields, We can make predictive analytics using deep learning models from python libraries. This can enhance the yearly yield growth of the specified field.

User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
	Permission	USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
Customer (Web user)	Login	USN-3	As a user, I can register for the application through username and password.	I can register & access the dashboard with Facebook Login	High	Sprint-2
	Check Credentials	USN-4	As a user, I can register for the application through mobile application	Parametric details are extracted	Medium	Sprint-1
	Dashboard	USN-5	As a user, I can log into the application by entering email & password	Dashboard for smart farming - IoT based application	Medium	Sprint-1
Customer Care Executive	MIT App	USN-6	To make the user to interact with the software	Database to store in cloud service	High	Sprint-1
Administrator	IoT devices	USN-7	As a user once views the manage modules this describes the manage system admins and Manage Roles of user and etc,..		Medium	Sprint-2
	Log out	USN-8	Exit	Sign out	High	Sprint-1