Project Design Phase –II

Technology Stack(Architecture & Stack)

DATE	1 November 2022
TEAM ID	PNT2022TMID26051
PROJECT NAME	Project – IOT Based Smart Crop Protection System for Agriculture
MAXIMUM MARKS	4 marks

Team leader:

Pooja.R

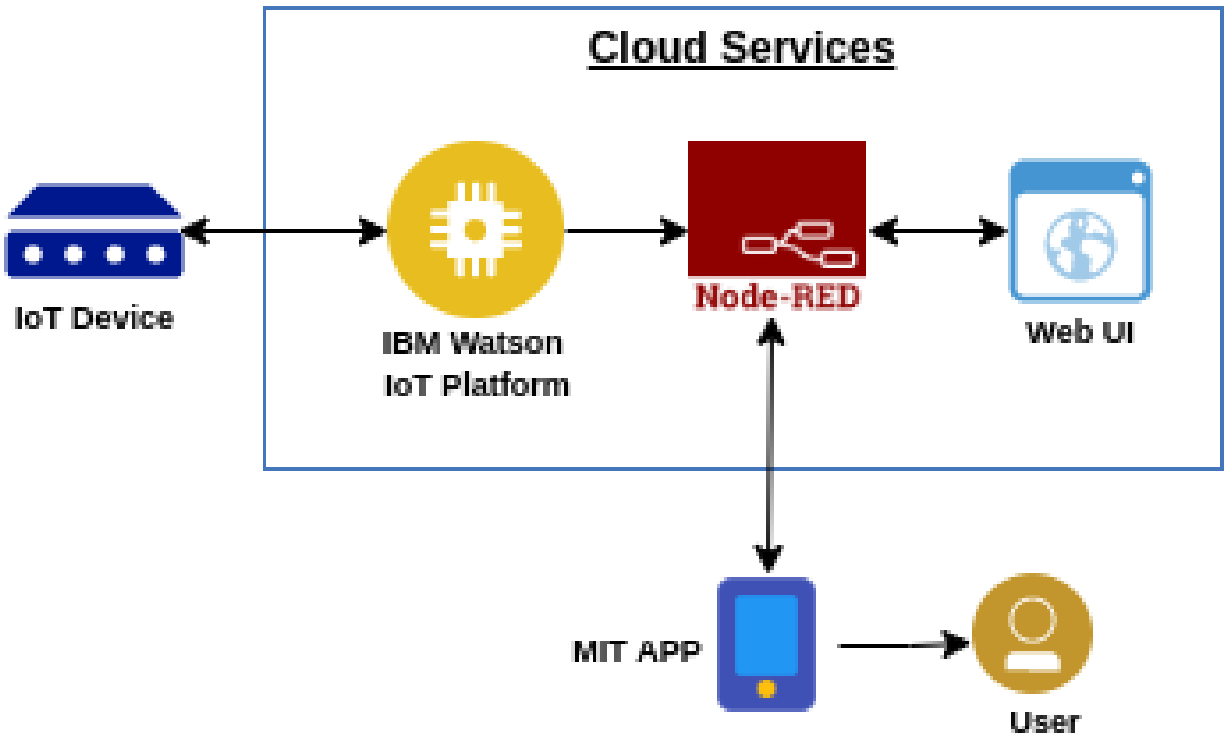
Team members:

Srimathi.R

Srimathi.S

Subashree.S

Technical Architecture:



WORK FLOW

Configuring IBM Cloud Services and develop a python script to publish the sensor parameters like Temperature, Humidity, and Soil Moisture to the IBM IoT platform .

Detect the presence of animals and birds in video streaming using Clarifai platform .

Develop a web Application using Node-RED Service.

Display the image in the Node-RED web UI and also display the temperature, humidity, and soil moisture levels. Integrate the buttons in the UI to control the Motors

Components &Technologies

S.No	Component	Description	Technology
1	User Interface	How user interacts with application e.g., Mobile application	HTML, CSS, JavaScript / Angular JS /Node red
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	Logic for a process in the application	IBM Watson Assistant
5	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc
6	Cloud Database	Database Service on Cloud	IBM DB2
7	File storage	File storage requirements	IBM Block Storage or Other Storage Service or

			Local Filesystem
8	External API-1	Purpose of External API used in the application	IBM Weather API, etc.
9	IOT Model	Purpose of IoT Model is for integrating the sensors with a user interface.	IBM IoT Platform
10	Infrastructure(server/cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc