PROJECT DESIGN PHASE-II
Technology Stack (Architecture & Stack)

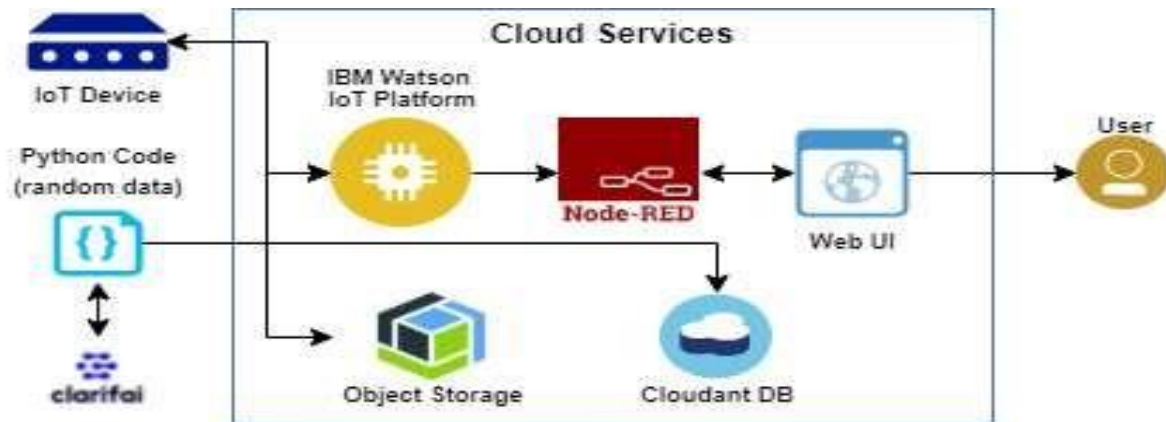| Date	03 October 2022
Team ID	PNT2022TMID42167
Project Name	Project - IOT Based Smart Crop Protection System for Agriculture

Technical Architecture:

S.No	Component	Description	Technology
1.	User interface	How user interacts with the web UI	HTML, CSS, JavaScript / Angular Js / React Js etc.

2.	Application Logic-1	Logic for a process in the application	Python

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2

Table-1: Components &Technologies

3.	Application Logic-2	Logic for a process in the application	IBM Watson/node red
4.	Application Logic-3	Logic for a process in the application	IBM Watson/node red
5.	Database	Data Type, Configurations etc.	MySQL, NoSQL, etc.
6.	Cloud Database	Database Service on cloud	IBM Cloudant
7.	File Storage	File storage requirements	IBM Block Storage

S.No			Cloud Foundry
8.	Infrastructure(Server /cloud)	Application deployment on Local System/Cloud Local Server configuration: Cloud sever configuration	Cloud Foundry

Table-2:Application Characteristics

S.No	Characteristics	Description	Technology
1.	Open-Source frameworks	The open-source frameworks used	Software
2.	Security implementations	List all the security/access controls implemented	Encryption process
3.	Scalable architecture	Justify the scalability of architecture(3-tier, micro-services)	Software
4.	Availability	Justify the availability of applications (eg. use of load balancers, distributed servers etc)	Software
5.	Performance	Design consideration for the performance of the application	Software

FLOW:

Power Supply → Rectifier → Regulator → LCD

Regulator → ARDUINO

TEMPERATUR SENSOR → ARDUINO

Water level sensor → ARDUINO

SOIL MOISTURE SENSOR → ARDUINO

ARDUINO → DC FAN

ARDUINO → DC MOTOR

ARDUINO → WATER PUMP

ARDUINO → WIFI Module → IOT WEBSITE

ARDUINO → GSM MODULE