

Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	19 October 2022
Team ID	PNT2022TMID22829
Project Name	IOT based Smart Crop Protection System for Agriculture
Maximum Mark	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table2.

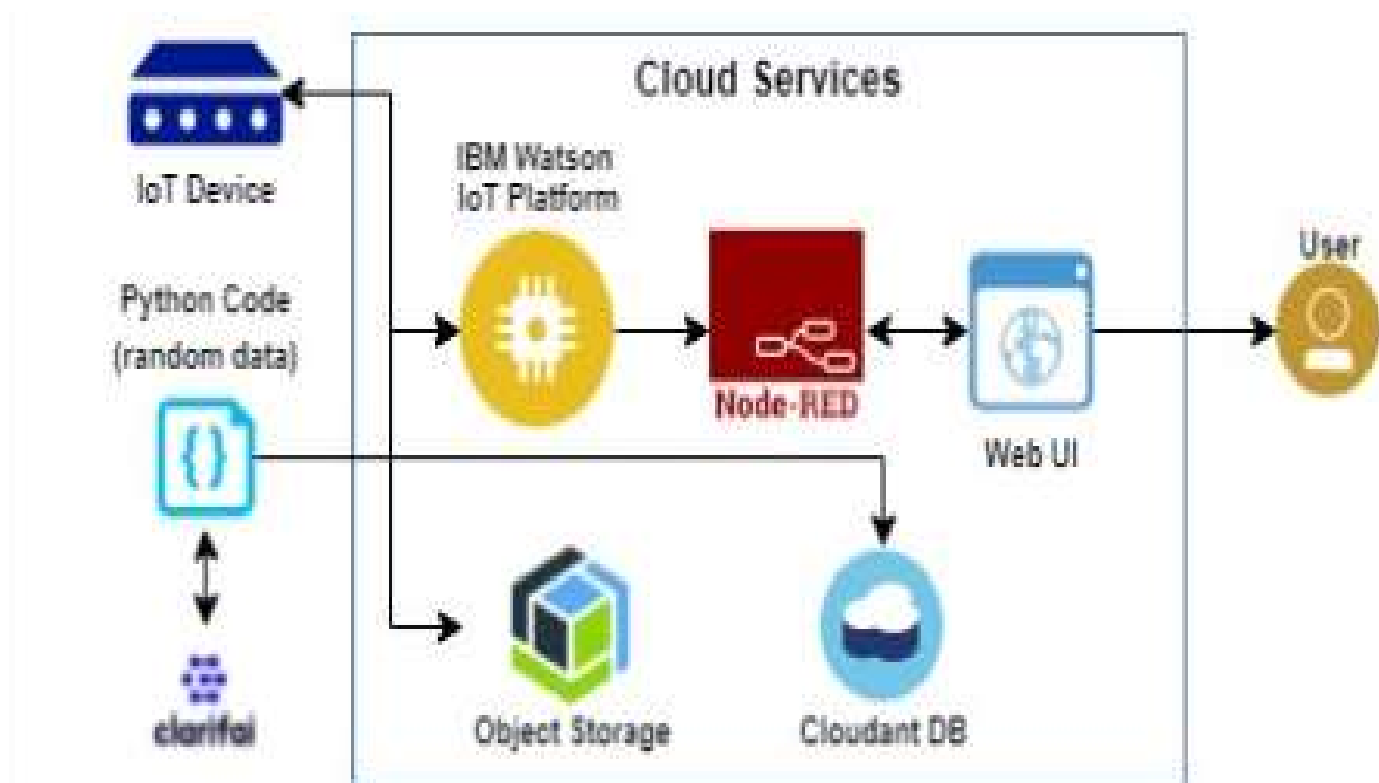


Table-1: Components & Technologies:

S.NO	COMPONENT	DESCRIPTION	TECHNOLOGY
1	User Interface	Interacts with IOT Devices	HTML, CSS, JS
2	Application Logic-1	Logic for a process in the application	Python
3	Application Logic-2	Logic for a process in the application	Clarify
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 DB, IBM Cloud etc
7	Infrastructure (Server/Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration:	Local, Cloud Foundry, Kubernetes, etc
8	File Storage	File Storage requirements	IBM block storage or other storage service or local file system
9	IOT Model	Purpose of IOT Model for integrating the sensors with the user interface.	IBM IOT platform

Table-2: Application Characteristics

S.NO	Characteristics	Description	Technology
1	Open-Source Frameworks	Open-source frameworks used	Python
2	Security Implementations	Authentication using encryption	Encryptions
3	Scalable Architecture	The scalability of architecture (3 – tier, Micro services)	Web UI Application server-python, clarify database server-IBM cloud services Technology.
4	Availability	It is increased by Cloud and database	IBM Cloud Services
5	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	IBM Cloud Services