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

Team ID	PNT2022TMID30395
Project Name	**IOT Based Smart Crop Protection System For Agriculture**

Technical Architecture:

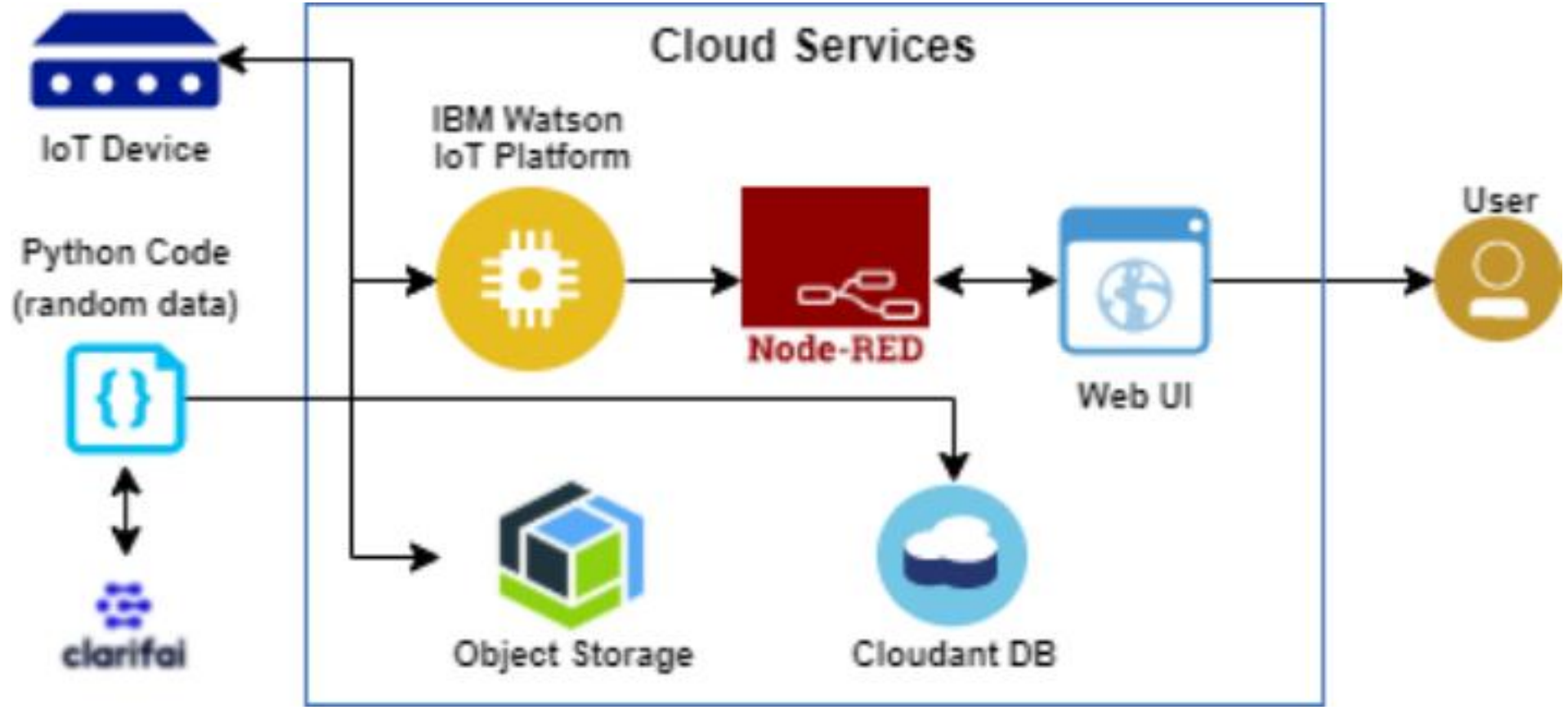

Table-1 : Components & Technologies:

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.	External API-1	Purpose of external API used in the application	IBM weather API etc.,
10.	IOT Model	Purpose of IOT Model for integerating 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

S.No	Characteristics	Description	Technology
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