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

Date	25 October 2022
Team ID	PNT2022TMID16870
Project Name	Project - Smart farmer - IoT enabled smart Farming Application
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
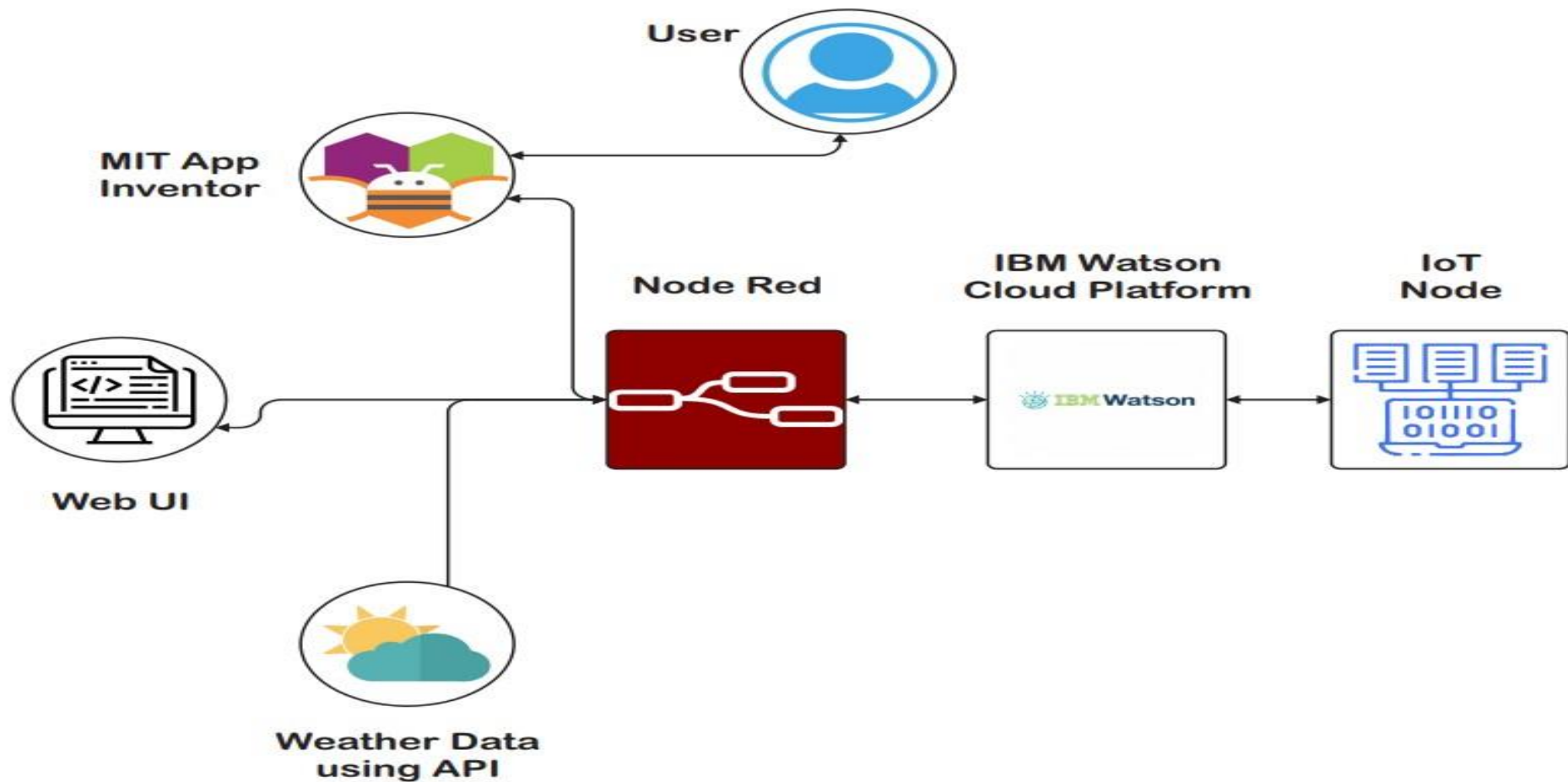
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Working Model, etc.	HTML, CSS, JavaScript / Angular Js / React Js etc.
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 IoT 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 Watson Cloud.
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.	External API-2	Purpose of External API used in the application	None
10.	Machine Learning Model	Purpose of Machine Learning Model	None

S.No	Characteristics	Description	Technology
11.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: Cloud Server Configuration :	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Node-Red, Open Weather API, MIT App Inventor (e.g. SHA-256, Encryptions, IAM Controls, OWASP etc.)
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	IoT
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IoT
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	IoT