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

Date	03 October 2022
Team ID	PNT2022TMID46724
Project Name	SmatrFarmer – IoT based smart farming application
Maximum Marks	4 Marks

Technical Architecture :

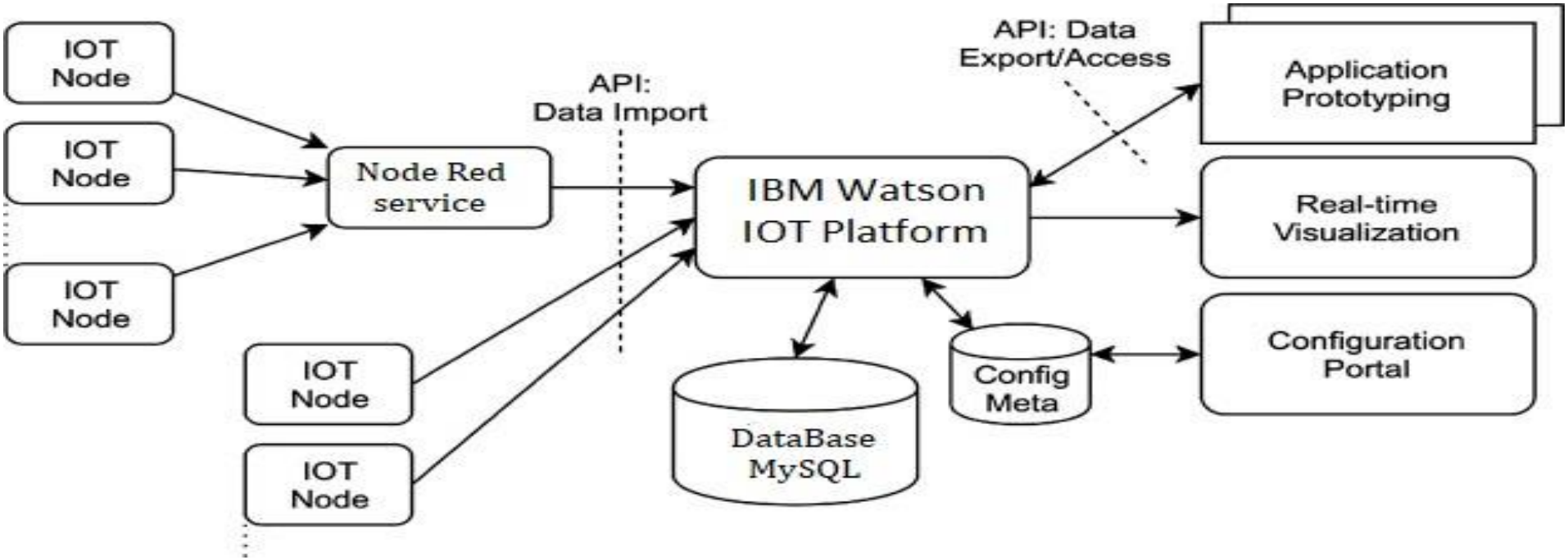

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App,etc.	MIT App Inventor
2.	Application Logic-1	Logic for a process in the application	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 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.	Machine Learning Model	Purpose of Machine Learning Model	Object Recognition Model, etc.
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud Local Server Configuration: A local server is the server that is running in the local or a mounted folder and whose document NOT the parent of the project	Cloud server and MySQL

		Cloud Server Configuration : It is the process of finding hardware and software detail for elements of a cloud environment to ensure that can interoperate and communicate	

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Angular.JS, Arduino ide, Python idle,
2.	Security Implementations	Sensitive and private data must be protected from their production until the decision-making and storage stages.	Encryptions, IAM Controls..
3.	Scalable Architecture	The idea of implementing integrated sensors with sensing soil and environmental or ambient parameters in farming will be more efficient for overall Monitoring.	Technology used
4.	Availability	Automatic adjustment of farming	Technology used

S.No	Characteristics	Description	Technology
		equipment made possible by linking information like crops/weather and equipment to auto-adjust temperature, humidity, etc.	
5.	Performance	The idea of implementing integrated sensors with sensing soil and environmental or ambient parameters in farming will be more efficient for overall monitoring.	Technology used