Project design phase 2

Technology stack

Date	1 November 2022
Team ID	PNT2022TMID50334
Project Name	IOT based smart crop protection for agriculture
Maximum Marks	4 Marks

TECHNOLOGY STACK DIAGRAM

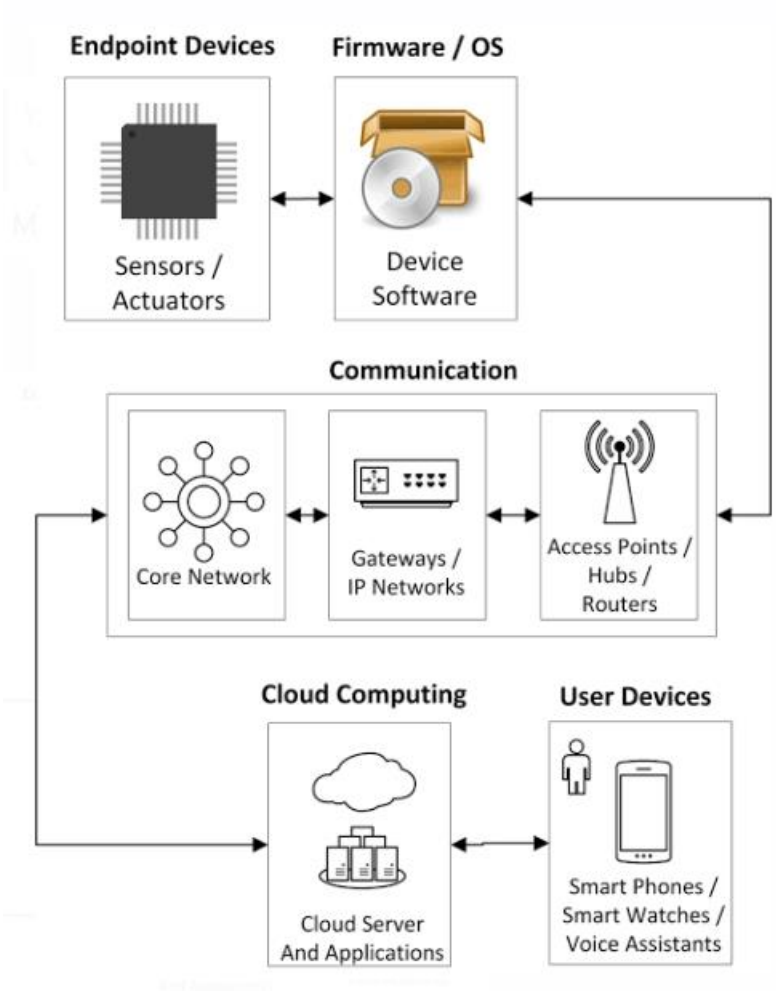

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interact with the application via mobile phone or messages.	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Application Logic-1	Logic for a process in the application	java
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, Microsoft azure.
7.	Temperature sensor	Monitor the temperature	TMP36
8.	Humidity sensor	Monitor the humidity	DHT11
9.	Soil moisture sensor	Measure the amount of water in the soil	Soil moisture sensor
10.	Weather monitoring	Monitor the weather	Temperature sensor

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Node red, clarifi	Software
2.	Security Implementations	Firewalls provide protection to the network by filtering insecure services.	Encryption process
3.	Scalable Architecture	Scalability is a major concern for IOT platform handle multiple IOT devices our solution due to the	Software

S.No	Characteristics	Description	Technology
		fact that the IOT devices do not access control information.	
4.	Availability	Automatic adjustment of farming equipment made devices as the ability of weather humidity, temperature throughout their service lifecycle.	Software
5.	Performance	The ideas of sensor networks agriculture can be create seamless environment among farmers and crops regardless of their geographical boundaries.	Software