

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

Date	16 October 2022
Team ID	PNT2022TMID34075
Project Name	Project - IoT Smart Crop Protection For Agriculture
Maximum Marks	4 Marks

Technical Architecture



Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Sends alert message to the user when animals enters into the farm	Web UI
2.	Application Logic-1	Soil humidity and moisture monitoring	Python
3.	Application Logic-2	Temperature monitoring and watering	Temperature sensor,ESP8266 node MCU module and DHT sensor
4.	Application Logic-3	Virtual fencing	Python

5.	Cloud Database	For data storage	IBM Cloudant DB
6.	File Storage	To back up the data	IBM cloud object storage

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Provides permission to use source code , design documents	IBM cloud,python
2.	Security Implementations	Sends alert message to the user when animals enters into the farm	Web UI
3.	Scalable Architecture	Replaces electric fence with virtual fence	IOT Watson platform
4.	Availability	Can be used as a backup	IBM cloud object storage
5.	Performance	High yield	IOT