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

Date	03 October 2022
Team ID	PNT2022TMID37201
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

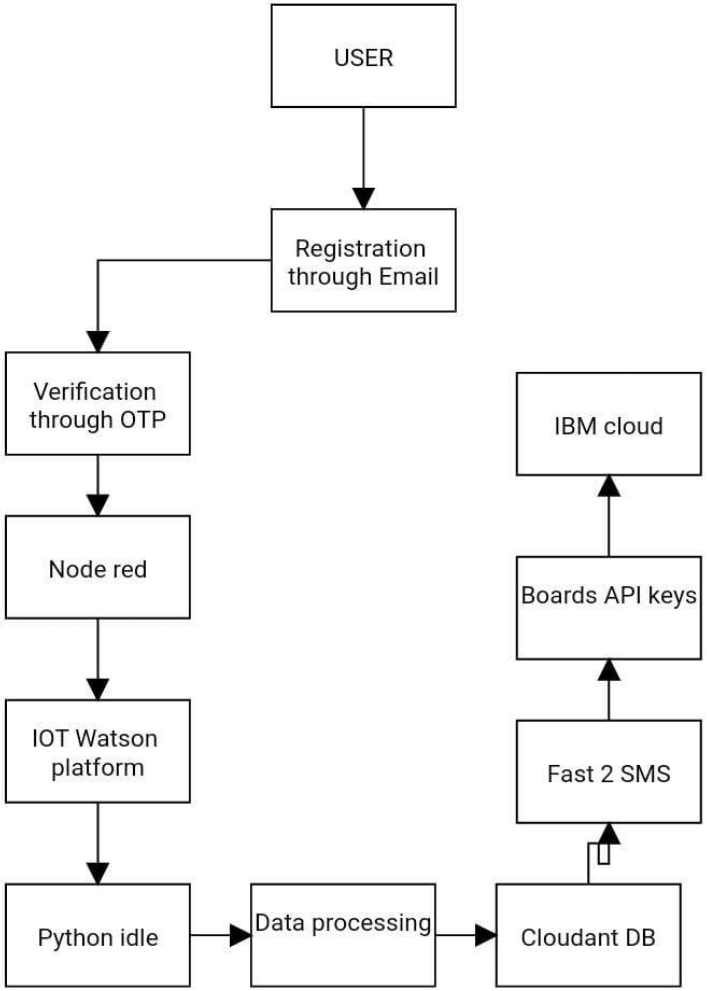
USER
Registration through Email
Verification through OTP
Node red
IOT Watson platform
Python idle
Data processing
Cloudant DB
Fast 2 SMS
Boards API keys
IBM cloud

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User can interact with Web UI, Mobile App, application.	MIT application
2.	User registration	Registration through Email.	Python idle
3.	Cloud acess	Storing and retrieving the entire field result using the app .	IBM Watson STT service
4.	File storage	Connecting the systems and devices using internet for better storage.	IBM cloud

5.	Database	Users personal information and field details are stored in cloud.	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2, IBM Cloudant etc.
7.	Application interface	User can login with personal credentials through Email.	IBM Watson STT service
8.	IOT model	The hardware setup to transfer data over a network by human to computer interaction.	Aadhar API, etc.
9.	Infrastructure	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	IBM Watson software allows the farmer to manage and streamline their farm .	IBM Watson cloud
2.	Security Implementations	Security/acess controls implemented and firewalls used.	SHA-256, Encryptions
3.	Scalable Architecture	Architecture that organized applications into three logical and computing tiers: The presentation tier, cloud tier, hardware tire or user interface.	Technology used
4.	Availability	Easy handling and highly available application.	IBM cloud used
5.	Performance	Automation to improve crop yielding ans it can we access by multiple users at a time .	Node red and Web UI