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

Date	15 October 2022
Team ID	PNT2022TMID39782
Project Name	Project - Fertilizer Recommendation System for Disease Prediction.
Maximum Marks	4 Marks

Technical Architecture:

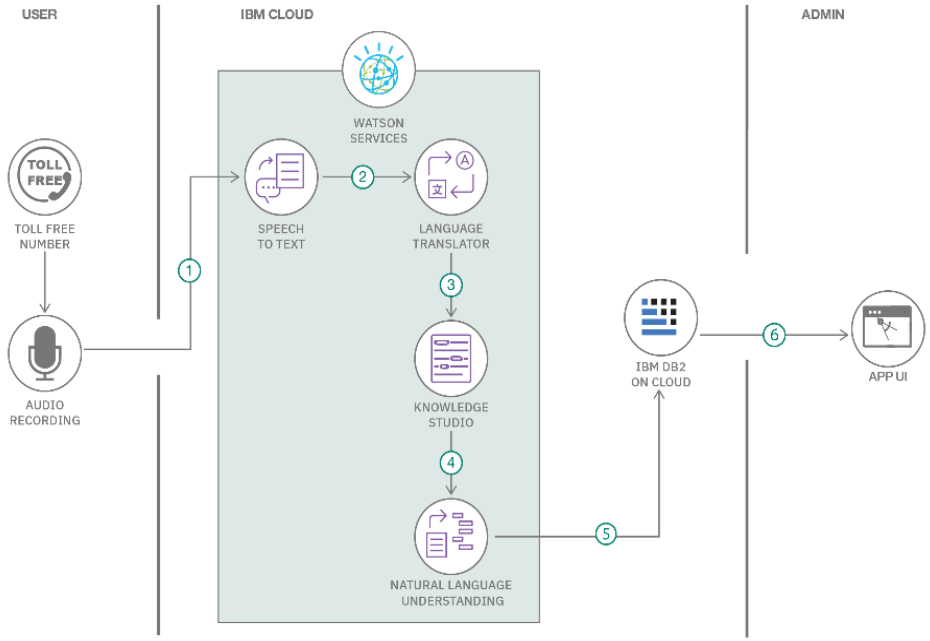

Table-1: Components & Technologies:

S. No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g., Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
2.	Application Logic-1	Logic for a process in the application	Python-Flask
3.	Image processing	Provide logic for a machine to process the images uploaded by the users	IBM Watson Image Recognition
4.	Database	Enable developer to store data and then accessing it.	MySQL.
5.	Cloud Database	Database Service on Cloud	IBM Cloudant DB
6.	File Storage	File storage requirements	IBM Cloud
7.	External API-1	We use it for the identity of the users	Gmail
8.	External API-2	Verify user identity	Mobile Number
9.	Deep Learning Model	Purpose of deep Learning Model	Convolutional Neural Networks
10.	Infrastructure (Server / Cloud)	Application Deployment on Local System	Local, Cloud Foundry

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Flask is a free high level opensource web framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, OWASP.
3.	Scalable Architecture	Justify the scalability of architecture	Micro-services
S. No	**Characteristics**	**Description**	**Technology**
4.	Availability	Justify the availability of application	Load balancers
5.	Performance	Design consideration for the performance of the application.	Use of cache