Project Design Phase - II

Technology Stack (Architecture & Stack)

Date	17 October 2022
Team ID	PNT2022TMID17868
Project Name	Fertilizers Recommendation System For Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

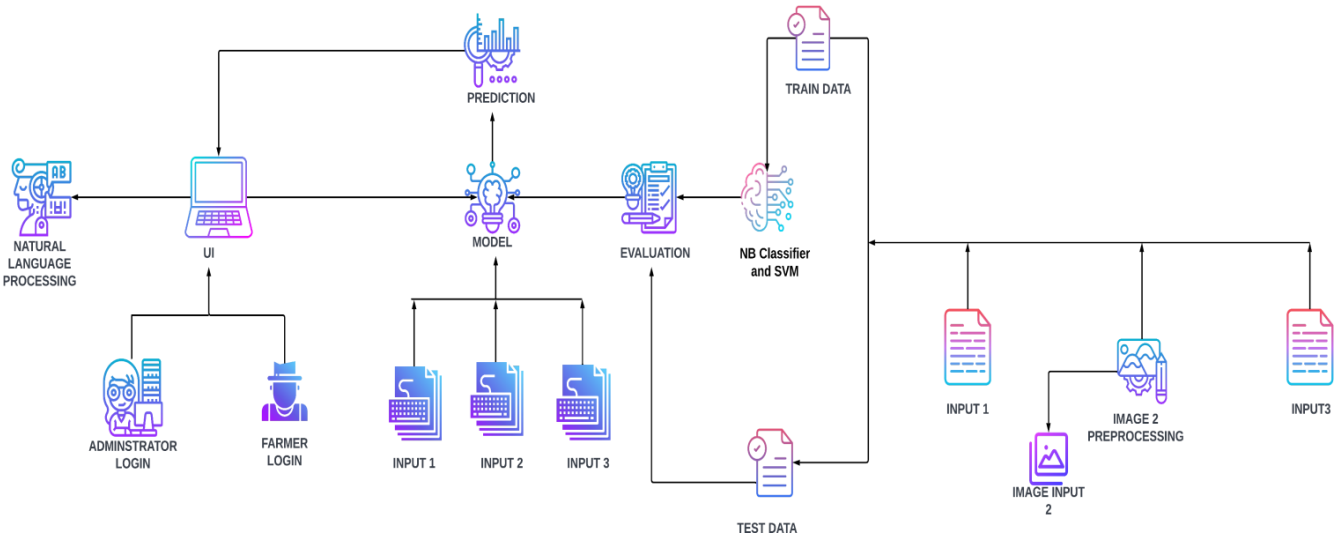

Table-1: Components & Technologies

S. No	Component	Description	Technology
1.	User Interface	User engagement with the application. To illustrate communication and	HTML, CSS, JSP

		interaction between humans and computers.	
2.	Application Logic - 1	The page where images can be input	Python
3.	Application Logic - 2	Using a machine learning model to predict the outcome	Python
4.	Database	Structured data images	MySql
5.	Cloud Database	Database that usually operates on a cloud computing platform and offers access as a service	IBM Cloud databases for MySql
6.	File Storage	To store data in a hierarchical structure	Local file system
7.	Machine Learning Model	In this instance, we employ a Support Vector Machine algorithm, which is frequently applied to classification and regression problems.	Random forest, XG Boost

Table-2: Application Characteristics

S No.	Characteristics	Description	Technology
1.	Open Source Frameworks	Flask micro web framework	Written in Python. It is classified as a

			micro framework because it does not requireparticular tools or libraries. It has nodatabase abstraction layer, form validation, or any other components where preexisting third-party libraries provide common functions.
2.	Security Implementations	Detecting malicious attacks, assessing network endpoint protection, and vulnerability assessment are only a few of the parts of the job that require Sign in encryption.	IBM Cloud App ID Services
3.	Availability	Available for all data sizes	
4.	Performance	Can increase storage capacity based on our demands	Python, Angular JS