

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

Date	05 October 2022
Team ID	PNT2022TMID33888
Project Name	Project – Fertilizer Recommendation System for Disease Prediction.
Maximum Marks	4 Marks

Technical Architecture:

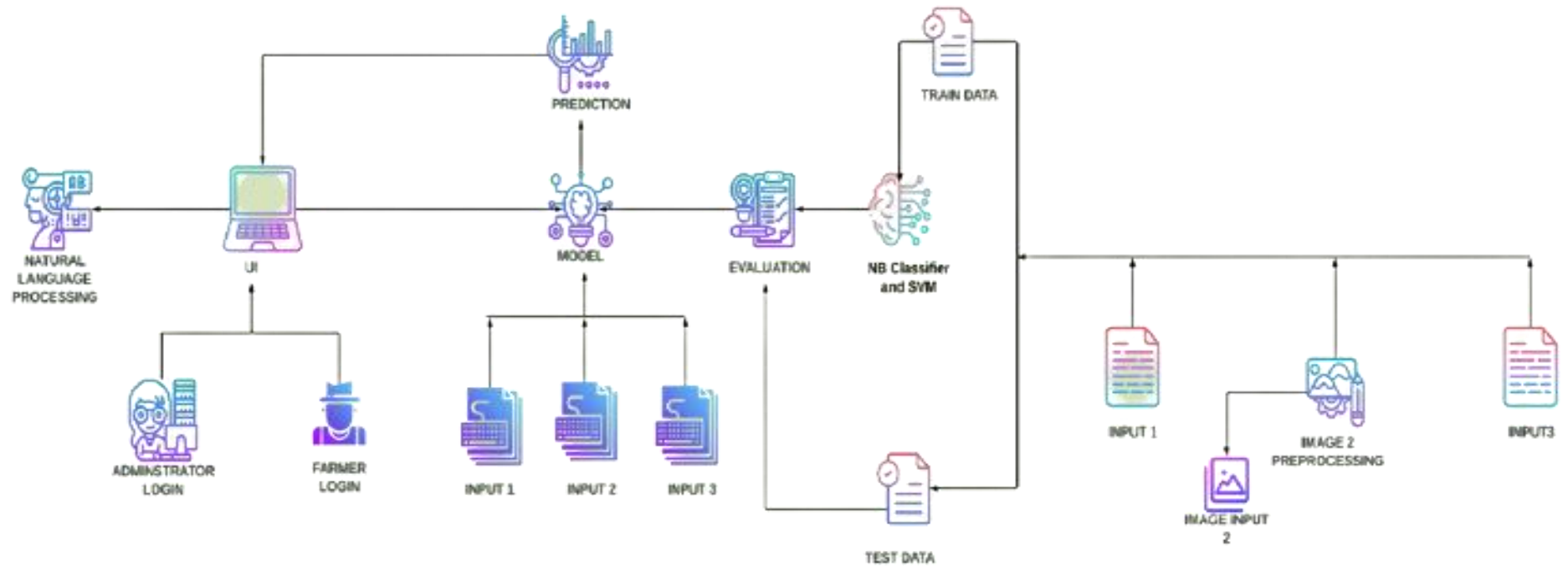


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Human computer interaction.	HTML, CSS, JavaScript / Angular Js / React Js
2.	Application Logic-1	To upload images as input.	Python
3.	Application Logic-2	To use Machine Learning model and predicting the result	Python
4.	Database	Structured data - images.	MySQL
5.	Cloud Database	Database Service on Cloud	IBM Cloud database for MySQL.
6.	File Storage	File storage requirements	Local Filesystem
7.	Machine Learning Model	Support Vector Machine Algorithm used in 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. Classified as micro framework. Does not require particular tools or libraries. It has no database abstraction layer, form validation or any other components where preexisting third party libraries provide common functions
2.	Security Implementations	Detecting Malicious attacks, Analysing the network endpoint protection and vulnerability assessment.	IBM Cloud App ID Services
3.	Availability	Available for all data size.	-
4.	Performance	We can extend our storage according to our needs	Python, Angular JS