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

Date	03 October 2022
Team ID	PNT2022TMID27490
Project Name	Project - Fertilizers Recommendation System For Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

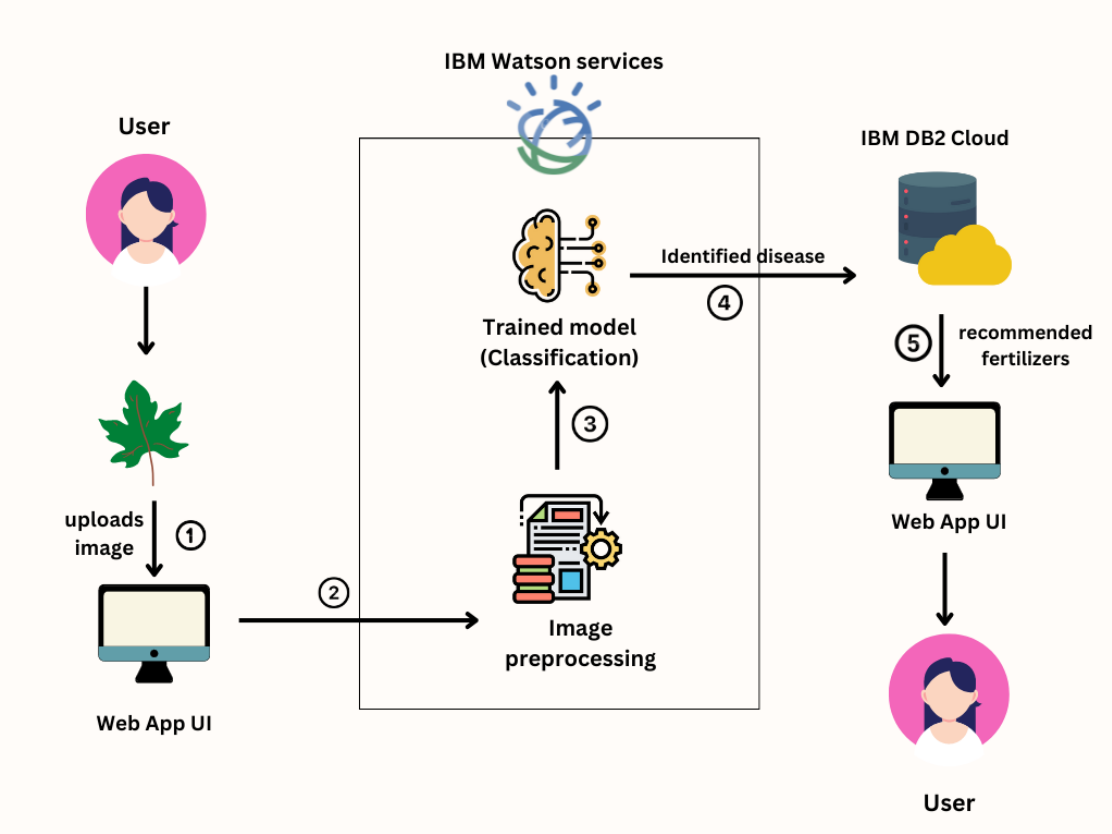

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	A Web Application to identify different diseases on plants by checking the symptoms shown on the leaves of the plant and recommend fertilizers to cure the identified disease.	HTML, CSS, JavaScript, Bootstrap.
2.	Application Logic-1	Identify the plant disease using the image of the leaf uploaded.	Python, Flask framework, IBM Watson services, Auto AI.
3.	Database	Store the details about the fertilizers that has to be recommended as a cure.	MySQL, IBM DB2.
4.	File Storage	Store the training and testing data required to build the model.	IBM Block Storage.
5.	Machine Learning Model	Classify the plant disease using deep learning technique(CNN).	Classification Model.
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local, Cloud.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	High level open-source frameworks	Flask, Bootstrap
2.	Security Implementations	Using the right resources when they need, without interference, using the devices they have and providing the accurate results.	IBM Cloud App ID services
3.	Availability	It can balance the load traffic among the servers to help improve uptime.	IBM Cloud load balancers.
4.	Performance	It can extend the storage according to our need.	IBM Speed curve and delivery pipeline.