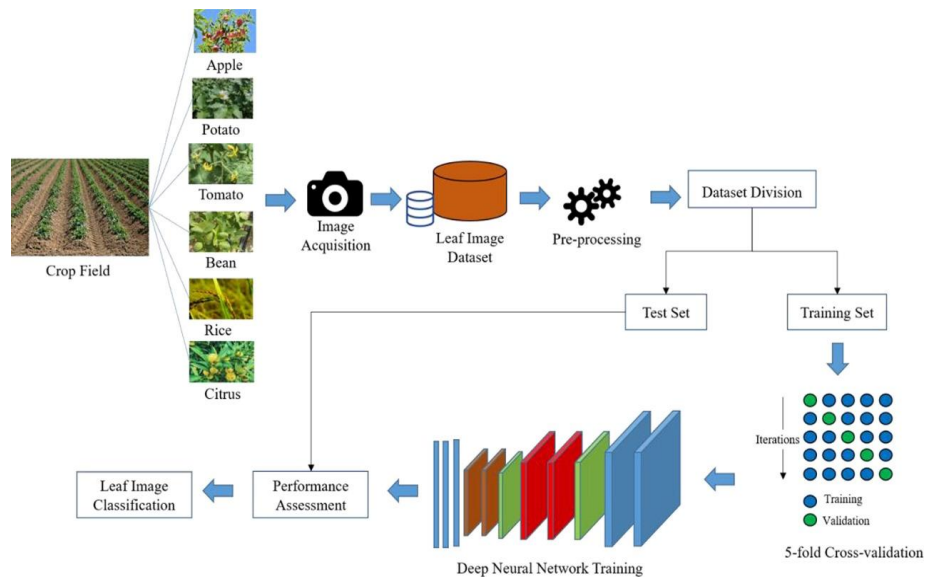


Project Design Phase-II Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID10869
Project Name	Fertilizer Recommendation System For Disease Prediction
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2



Guidelines:

1. Include all the processes (As an application logic / Technology Block)
2. Provide infrastructural demarcation (Local / Cloud)
3. Indicate external interfaces (third party API's etc.)
4. Indicate Data Storage components / services
5. Indicate interface to machine learning models (if applicable)

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	By web UI the user interacts with the web application and fullfill the user requirements with good user experience.	HTML, CSS, JavaScript.
2.	Application Logic-1	The user has to register to the application.	Python
3.	Application Logic-2	Once they have created account, they can log in and use the facilities. They can find the plant disease by simply uploading a image of it.	IBM Watson STT service
4.	Application Logic-3	Suitable fertilizer recommendation for the plant disease will be given and the user can even contact with experts .	IBM Watson Assistant
5.	Database	SQL Data Type	MySQL
6.	Cloud Database	Database Service on Cloud	IBM DB2
7.	Machine Learning Model	To recognize the image and find the disease	Object Recognition Model
8.	Infrastructure (Server / Cloud)	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	List the open-source frameworks used	Technology of Opensource framework
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	SHA-256, Encryptions, IAM Controls.
3.	Scalable Architecture	It is scalable and provided by neural network, NLP, Watson assistant, Artificial Intelligence, Cloudant DB	
4.	Availability	Can be available for any time. If any of the page experience the problems must display a notification with timer showing when the system is going to up again.	
5.	Performance	The app will be loaded within 7 seconds that access the website using the Wi-Fi.	