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

Date	06 Nov 2022
Team ID	PNT2022TMID35100
Project Name	Estimation of crop yield using data analytics
Maximum Marks	4 Marks

Technical Architecture for Handwritten Digit Recognition System:

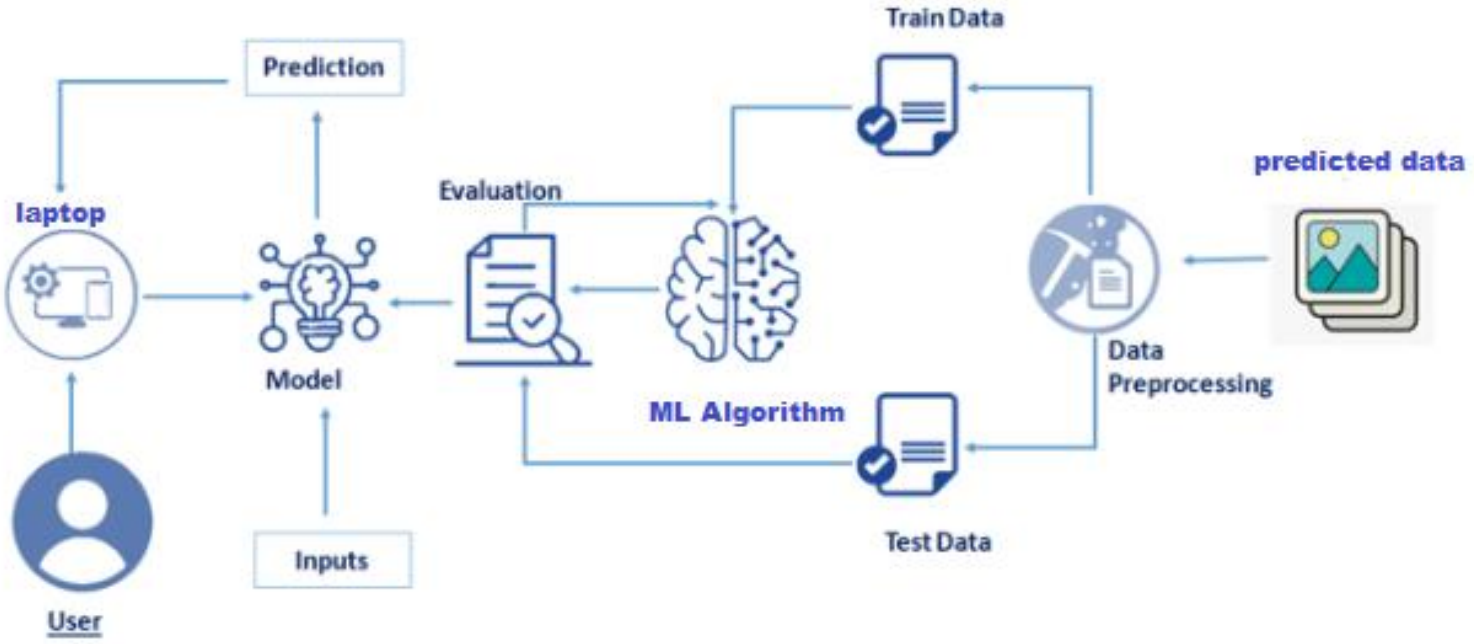

Table-1: Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	User interacts with the application using a web app	python
2.	Database	Data Type, Configurations etc.	MySQL, NoSQL,Excel etc.
3.	Cloud Database	Database Service on Cloud	IBM Cognos analytics.
4.	File Storage	Storage of user files in cloud account	IBM Block Storage or Other Storage Service or Local File system
5.	Machine Learning Model	Machine learning model is used to identify the estimation of crop yield using datasets	prediction Model.
6.	Infrastructure (Server / Cloud)	Application Deployment on Local System / AI Local Server Configuration AI Server Configuration	Local, Cloud Foundry, Kubernetes, etc.

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	Machine learning frameworks is used to train a predictive model	PyTorch,Open-cv,Google Colab.
2.	Scalable Architecture	The website traffic limit must be scalable enough to support 2 lakhs users at a time	3-tier
3.	Availability	Minimizing errors and maximizing accuracy	distributed servers
4.	Performance	.Program should be less time consuming	number of requests per second