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

Date	03 October 2022
Team ID	PNT2022TMIDxxxxxx
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Technical Architecture:

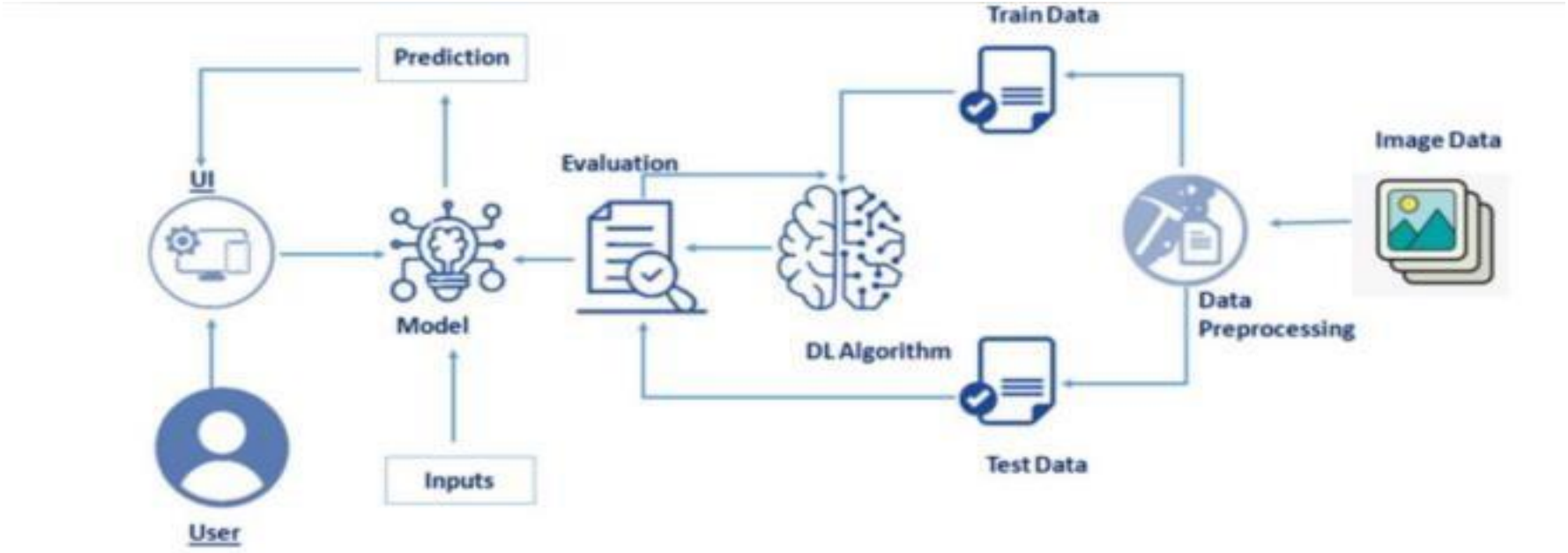

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	How user interacts with application e.g. Web UI, Mobile App, Chatbot etc.	HTML, CSS, JavaScript
2.	Application Logic-1	Home page	HTML, CSS, Python flask.
3.	Application Logic-2	Prediction & Result	HTML, CSS, Python flask.
4.	Cloud Database	Database Service on Cloud	IBM Database
5.	External API-1	Purpose of External API used in the application	IBM API.
6.	Machine Learning Model	Purpose of Machine Learning Model	Image Recognition Model, IBM Watson Studio.
7.	Infrastructure (Server / Cloud)	Application Deployment on Local System / Cloud	Local Server Configuration : Local System Cloud Server Configuration : IBM Watson

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	List the open-source frameworks used	Python Flask, Jupyter Notebook, Tensorflow, and Python libraries.
2.	Security Implementations	List all the security / access controls implemented, use of firewalls etc.	Through Password
3.	Scalable Architecture	Justify the scalability of architecture (3 – tier, Micro-services)	Python Libraries.
4.	Availability	Justify the availability of application (e.g. use of load balancers, distributed servers etc.)	IBM Watson Machine Learning.
5.	Performance	Design consideration for the performance of the application (number of requests per sec, use of Cache, use of CDN's) etc.	Flask