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

DATE	15 October 2022
TEAM ID	PNT2022TMID32148
PROJECT NAME	Project - A Novel Method for Handwritten Digit Recognition System
MAXIMUM MARKS	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table1 & table 2
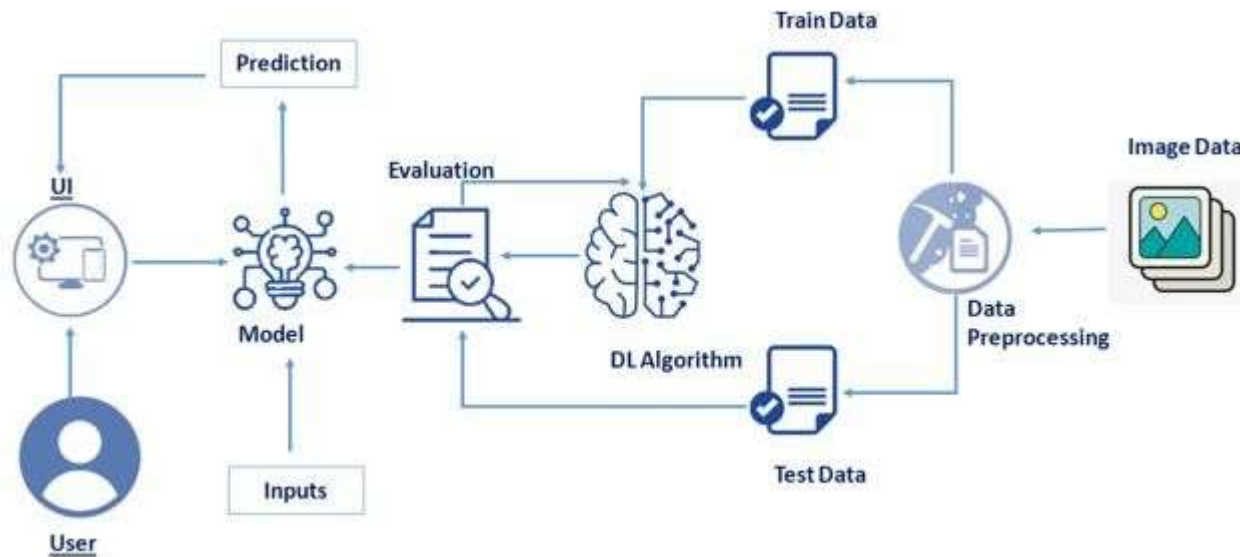
Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	Web UI through mobile or desktop browser	HTML, CSS, JavaScript
2.	Application Logic-1	Using the machine learning process	Python
3.	Application Logic-2	Using the libraries to pre-processing the image	Python libraries like sklearn, numpy, pandas etc.
4.	Application Logic-3	Different visualization techniques	Python libraries like matplotlib, seaborn etc
5.	Application Logic-4	For routing and rendering	Python flask
6.	Database	Configurations	NoSQL.
7.	Cloud Database	Database Service on Cloud	IBM Cloud
8.	File Storage	File storage requirements	Local Filesystem
9.	Machine Learning Model	To predict the handwritten digits	Handwritten Digit Recognition Model, etc.
10.	Infrastructure (Server / Cloud)	Application Deployment on Cloud.	IBM Cloud

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	React framework to design the frontend	React
2.	Scalable Architecture	3 – tier	Python flask
3.	Availability	Cloud platform	IBM cloud
4.	Performance	Withstand with many requests at a time	Online deployment to IBM cloud