

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

Date	16 October 2022
Team ID	PNT2022TMID33904
Project Name	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

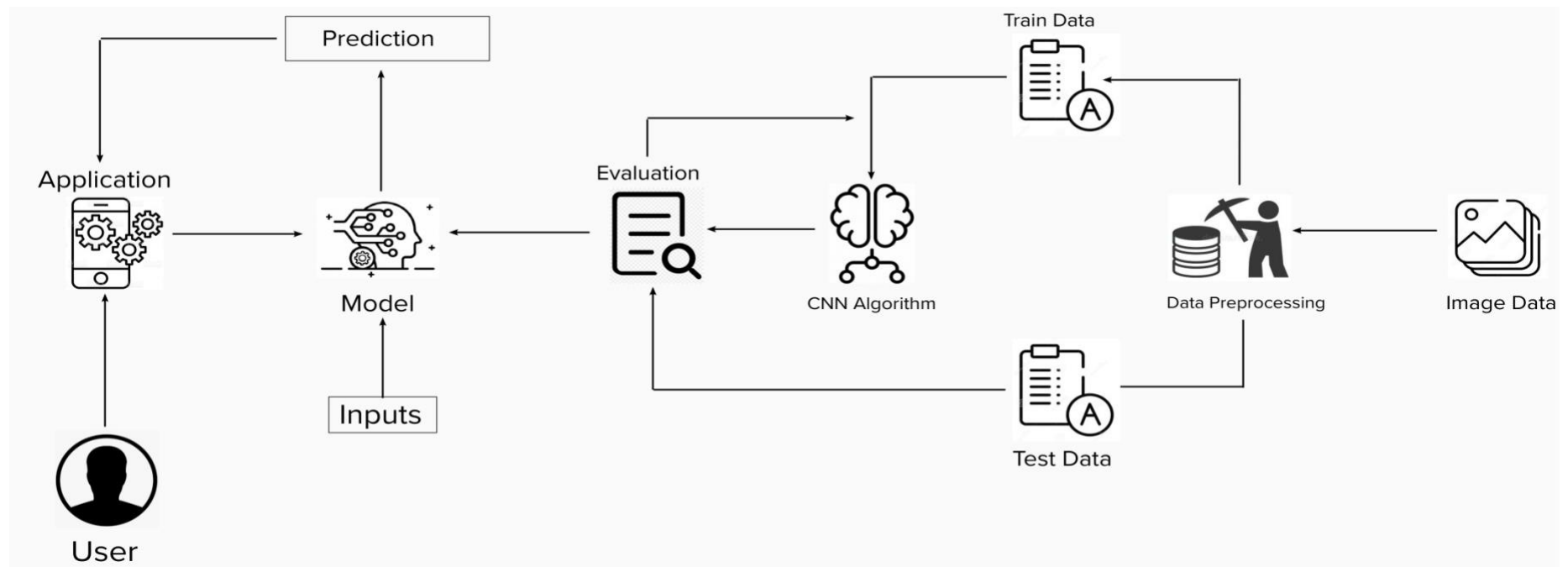


Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	Application	User interacts with application for the recognition of the handwritten digits	HTML, CSS, JavaScript / Angular Js / React Js etc.
2.	Image processing / data processing	User uploads or process the data in our application	Python
3.	Database	Digits dataset will be stored	MNIST dataset
4.	Cloud database	Database service on cloud	IBM Watson cloud
5.	File storage	User requirements will be processed through the file	Cloud -> drive
6.	Machine learning model	Image processing, data visualization and evaluation can be done	CNN , ANN, RNN
7.	Infrastructure	Cloud based web application	Cloud application

Table-2: Application Characteristics:

S.No	Characteristics	Description	Technology
1.	Open-Source Frameworks	It is made freely available code for application notification and redistribution	Jupiter(Python), Js
2.	Security Implementations	Request for authentication using encryption	Encryption algorithm
3.	Scalable Architecture	This application must remain resilient in the face of attacks. The behaviour of the application must be correct and predictable	HTML, CSS, JS, PYTHON, FLASK, IBM Cloud
4.	Availability	The web dashboard must be available to user's 99.9 percent of the time every month during business hour	IBM cloud hosting
5.	Performance	The application must be scalable enough to support 10,000 visits at the same time while maintaining optimal performance	IBM load balancing

