PROJECT DESIGN PHASE- II

TECHNOLOGY ARCHITECTURE

Date	13October2022
TeamID	PNT2022TMID18363
ProjectName	A Novel Method for Handwritten Digit Recognition System
MaximumMarks	4 Marks

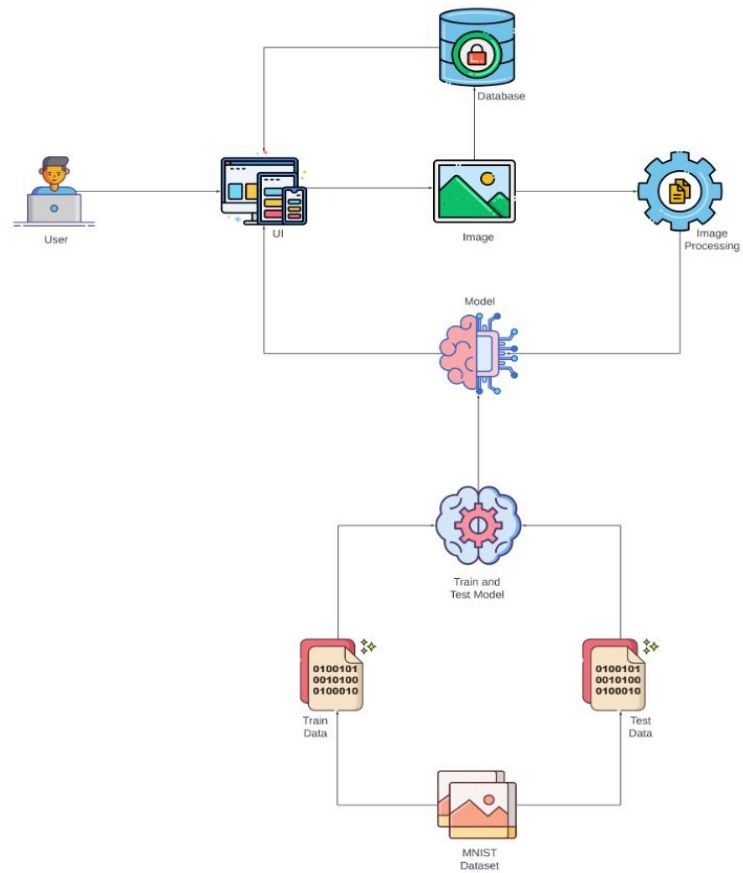**TechnicalArchitecture for Handwritten Digit Recognition System:**

Table-1:Components& Technologies:

S.No	Component	Description	Technology
1.	UserInterface	User interacts with the application using a web app	HTML, CSS, JavaScript / Angular Js /ReactJsetc.
2.	ApplicationLogic	Login to access the application	Java/ Python
5.	Database	DataType,Configurationsetc.	MySQL,NoSQL,etc.
6.	CloudDatabase	DatabaseServiceonCloud	IBMDB2, IBMCloudantetc.
7.	FileStorage	Storage of user files of handwritten image	IBM Block Storage or Other StorageService orLocal Filesystem
10.	MachineLearningModel	Machine learning model is used to identify the handwritten image uploaded by users	ObjectRecognitionModel, etc.
11.	Infrastructure(Server/Cloud)	Application Deployment on Local System / AI Local Server Configuration AI Server Configuration	Local,CloudFoundry,Kubernetes,etc.

Table-2:ApplicationCharacteristics:

S.No	Characteristics	Description	Technology
1.	Open-SourceFrameworks	Machine learning frameworks is used to train a predictive model	PyTorch, Open-cv
2.	SecurityImplementations	The system should automatically be able to authenticate all users with their unique username and password	Password based login, Authorization
3.	Scalable Architecture	The website traffic limit must be scalable enough to support 2 lakhs users at a time	3-tier
4.	Availability	The system functionality and services are available for use with all operations.	distributed servers
5.	Performance	The application can give response to requests within 5 sec. It usesfewer features to train the neural network, which results in faster convergence.	number of requests per sec