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

Team ID	PNT2022TMID14753
Project Name	A Novel Handwritten Digit Recognition System
Maximum Marks	4 Marks

Technical Architecture:

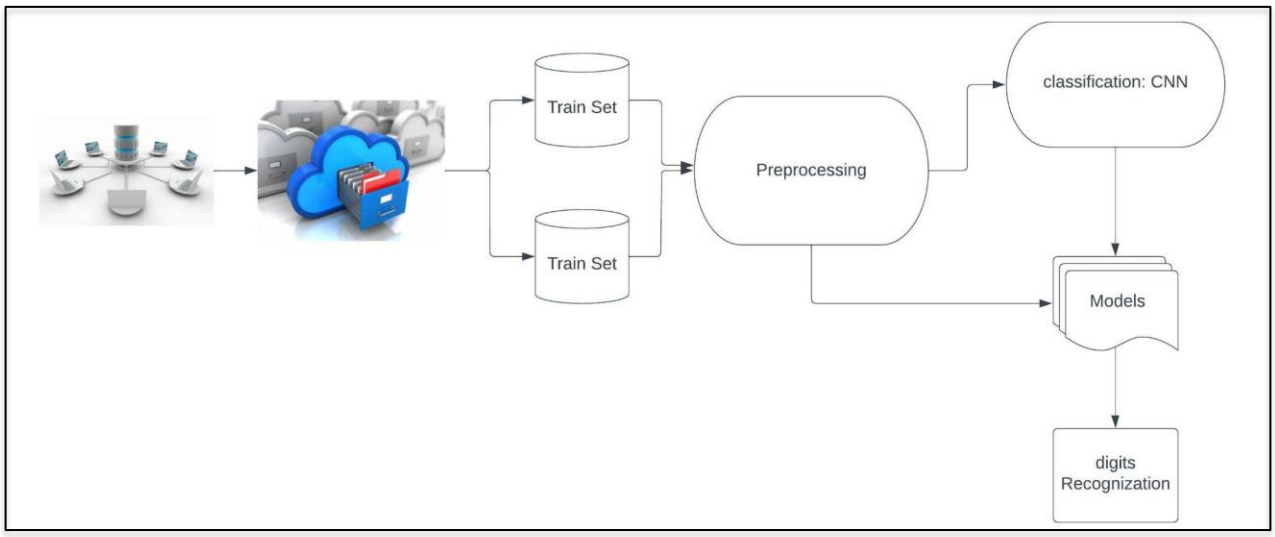

Table-1: Components & Technologies:

S.NO	Component	Description	Technology
1	UI/UX (User Interface)	A User application for interaction	Django, HTML, CSS
2	Functionalities	Application methods to execute and operate a process	Python
3	Database	Used to store data (structured data, unstructured data)	NoSQL, MySQL Database

4	Cloud Database	Provides a remote accessible database with a deployment model	IBM DB2, IBM Cloud ant
5	File Storage	File storage requirements	IBM Block Storage
6	API	Interface between application and backend	Python (Aadhar API)
7	Machine Learning Model	A model which is trained and preprocessed to do a specific task	Text recognition model

Table-2: Application Characteristics:

S.NO	Characteristics	Description	Technology
1	Open-Source Frameworks	Open-Source vendor products cost efficient and community supported	IBM Cognos Analytics with Watson, Python, Jupyter Notebook.
2	Security Implementations	Authentication and security are resilient	Encryptions (cloud encryptions provided by IBM)
3	Scalable Architecture	Efficient enough to scale as per the need	Application server – Python Database Server – IBM Cloud
4	Availability	The application is available for IBM Cloud users	IBM Cloud Hosting

References:

1. https://www.leanix.net/en/wiki/ea/technical-architecture
2. https://developer.ibm.com/patterns/online-order-processing-system-duringpandemic/
3. https://c4model.com/
4.https://medium.com/the-internal-startup/how-to-draw-useful-technical-architecture-diagrams-2d
5. https://www.ibm.com/cloud/architecture