Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	15 October 2022
Team ID	PNT2022TMID07719
Project Name	Project - A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Functional Requirement	Description
FR-1	Website	• A website having a login feature, where each user will have to register and then he/she will be able to login using his username and password.
FR-2	Upload Image	• Must be able to take the handwritten inputs in the form of the images. (JPG or PNG)
FR-	Input correlation	• Image Correlation is a technique used to recognize characters from images. Collecting data and prepare it for training.
FR-4	Feature extraction	• Feature extraction is analyzing the images and deriving some characteristics from these images that identify each specific element.
FR-5	Output	• System should retrieve characters present in the image and display them to the user • Must be able to display the accurate output in text format

Non-functional Requirements:

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	• Application for digit recognition include filling out forms, processing bank checks, and sorting mail. • Should be easy to use even by the less technically gifted
NFR-2	**Security**	• As it will be used in the banking sector, it should be able to store the cheque details securely. • This will be done by authenticating the users using their username and password.
NFR-3	**Reliability**	• This software should work reliably for low resolution image and should not run into any errors
NFR-4	**Performance**	• The software should be responsive and provide output quickly even for complex handwriting
NFR-5	**Accuracy**	• Optical Character Recognition (OCR) technology provides higher than 99% accuracy with typed characters in high- quality images. However, the diversity in human writing types, spacing differences, and inequalities of handwriting causes less accurate character recognition.
NFR-6	**Scalability**	• Large numbers of users can recognize the digits at a time without any restriction.