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

Team ID	PNT2022TMID11500
Project Name	A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIN
FR-2	User Confirmation	Login via registered Username and Password
FR-3	Uploading images	Able to input the handwritten images into the application
FR-4	Recognizing digits	Display the recognized digits from the input images to the user

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The software is very easy to use and reduces the learning work. To recognize the digits from bank cheque, papers, numeric entry in forms etc. The application needs to respond smoothly so that the user can use the application effectively and need to be a user-friendly application.
NFR-2	**Security**	The handwritten digit recognition can be used by banking sector where it can be used to maintain the security pin numbers, it can be also used for blind peoples by using sound output. Ensure the security by authenticating the users using their username and password.
NFR-3	**Reliability**	The application does not show any error during the recognition of the digits from the uploaded images. This software will work reliably for low resolution images and not for graphical images.
NFR-4	**Performance**	Needs to respond fast and provide the output even for the complex handwritings. Handwritten characters in the input image will be recognized with an accuracy of about 90% and more.
NFR-5	**Availability**	Need to available for all users at any time and can be able to input the handwritten images to the application easily. This system will retrieve the handwritten text regions only if the image contains written text in it.
NFR-6	**Scalability**	It can be able to handle N numbers of users at the same time with faster response and recognize the digits effectively. It contains thousands of handwritten digits that have been used in the development of programs.