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

Date	15 October 2022
Team ID	PNT2022TMID09973
Project Name	Project -- 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 Gmail/Messengers.
FR-2	User Login	Login through registered Username and Password.
FR-3	Uploading images	Input the handwritten images into the application.
FR-4	Input correlation	To recognize characters from images and collecting data and prepare it for training.
FR-5	Feature extraction	Analyzing the images and deriving characteristics from these images that identify each specific element.
FR-6	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 application needs to respond very smoothly so that the user can use the application effectively and need to be an user friendly software.To recognize the digits from bank cheque,papers,entry in forms etc.
NFR-2	**Security**	Ensure the security by authenticating the users using their username and password.It can be also used for blind peoples by using sound output
NFR-3	**Reliability**	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 complex handwritings.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 able to input the handwritten images to the application easily
NR-6	**Scalability**	It contains thousands of handwritten digits that have been used in the development of programs
NFR-6	**Scalability**	It is able to handle N numbers of users at the same time with faster response and recognize the digits effectively.