

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

Date	03 October 2022
Team ID	PNT2022TMID45370
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 Form Registration through Google Account Registration through Apple ID Registration through LinkedIN
FR-2	User Confirmation	Confirmation via Email Confirmation via Mobile OTP
FR-3	User Login	Login via Google Account Login via Apple ID
FR-4	Uploading Images	Giving appropriate files such as pdf or image into the application
FR-5	Getting Output	Acquiring the recognized digits from the input files to the user as text

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	This software is very easy to use and reduces the learning of how to use the software. To recognize the digits from bank cheque, papers, numeric entry in forms etc. The application needs to respond stably without interruption so that the user can use the application effectively and need to be a user-friendly application.
NFR-2	Security	This kind of 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	This 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	This application 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	This application 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	This application 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