

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

Date	10 October 2022
Team ID	PNT2022TMID15811
Project Name	<b>Project - A Novel Method for Handwritten Digit Recognition System.</b>
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	Confirmation via Email Confirmation via OTP
FR-3	Input Verification	Verify the input uploaded by user
FR-4	Read the text	Read the all text by algorithm and store in sparse matrix format
FR-5	Store the file	Storing the file in format of digit in sparse matrix
FR-6	Output	The output will be display as the digit of the file

## Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	The platform will be a user friendly one as the only form of input received from the user is the image only. Based on that the output will displayed in format of digit.
NFR-2	<b>Security</b>	The platform shall be made secure such a way that no data shall be leaked or accessed by unauthorised users. Our stored data should use for checking similar handwritten so the data should not leaked any where. And we have more security for that.
NFR-3	<b>Reliability</b>	The platform shall be made a more reliable one through proper analyze the input image and display the most accurate output based on analyzation and satisfying the user needs.
NFR-4	<b>Performance</b>	The handwritten recognition of digit predict with

		<p>appreciable amount of efficiency by using these machine learning techniques.</p> <ul style="list-style-type: none"> <li>• Neural network</li> <li>• Predefined models</li> </ul>
NFR-5	<b>Availability</b>	<p>The platform shall be made available for all the users who wish to find the handwriting recognition for their users. Eg. Online exam malpractice, signature etc...</p>
NFR-6	<b>Scalability</b>	<p>Based on the machine learning techniques, the output of the handwritten recognition shall be predict with nearly 80% - 90% of accurate output.</p>