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

Date	15 October 2022
Team ID	PNT2022TMID38424
Project Name	Project - A Novel Method for Handwritten Digit Recognition System
Maximum Marks	4 Marks

Functional Requirements:

FR No.	Functional Requirement	Sub Requirement
FR-1	**Input**	• Must be able to take the handwritten **inputs** in the form of the **images**. (JPG, PNG)
FR-2	**Error**	• System shall show the error message to the user when the **input** given is **not** in the **required format**.
FR-3	**Detect Target**	• System should **detect characters** present in the image. • Must be able to perform classification and identification algorithms and should recognize the handwritten input
FR-4	**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**	✓ Applications for digit recognition include filling out forms, processing bank checks, and sorting mail. ✓ It can also used for blind-people by using sound input.
NFR-2	**Security**	✓ Banking sector where it can be used to maintain the security pin number safely.
NFR-3	**Reliability**	✓ This software will work reliably for low resolution image and not for graphical images ✓ The standard implementations of neural networks achieve an accuracy of approximately
NFR-4	**Performance**	✓ Software will perform its intended function for a large period of sufficient time and also it will operate in a secured environment without any failures.
NFR-5	**Availability**	✓ This system will retrieve the handwritten text regions only if the image contains written text in it.
NFR-6	**Scalability**	✓ System can work normally under any amount of inputted handwritten data.