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

Date	14 October 2022
Team ID	PNT2022TMID00698
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	Input correlation	Image Correlation is a technique used to recognize characters from images.
FR-2	Data Preparation	Collecting data and prepare it for training
FR-3	Feature extraction	Feature extraction is analysing the images and derive some characteristics from these images that identify each specific element
FR-4	Character classification	During the classification phase, the attributes of the data in the picture are compared to the classes in the database to determine which class the picture belongs to.

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.
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.
NFR-3	**Reliability**	This software will work reliably for low resolution images and not for graphical images.
NFR-4	**Performance**	Handwritten characters in the input image will be recognized with an accuracy of about 90% and more.
NFR-5	**Availability**	This system will retrieve the handwritten text regions only if the image contains written text in it.
NFR-6	**Scalability**	It contains thousands of handwritten digits that have been used in the development of programs .