

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

Date	03 October 2022
Team ID	PNT2022TMID21349
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 Gmail Registration through LinkedIn
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	Input data	The system process the input given by the user only if it is an image file
FR-4	Feature extraction	Analysing the images and derive some characteristics from these images that identify each specific element
FR-5	Data Pre-processing	Performing some normalization and pre-processing in the given input.
FR-6	Character classification	The attributes of the data in the picture are compared to the classes in the database to determine which class the image belongs to
FR-7	Result	The scanned digit is recognized as a correct number

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	It describes who, when, why, How this software system can be used. System design should be easily understood and user friendly to users
NFR-2	Security	All data inside the system or its part should be protected against malware attacks or unauthorized access.

NFR-3	Reliability	Should work reliably for low resolution images and not for graphical images.
NFR-4	Performance	Should reduce the delay in information and accomplish certain functions under any specific condition.
NFR-5	Availability	It describes how likely the system is accessible to a user at a given point in time and the system should retrieve the handwritten text regions only if the image contains written text in it.
NFR-6	Scalability	To handle an enhanced level of operations without constraints like handling 10000 users accessing the site at the same time