

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

Date	03 October 2022
Team ID	PNT2022TMID35588
Project Name	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	Image upload	Upload image through web application Use of file system to store the uploaded image on server side
FR-2	Image validation & Preprocessing	Validating the give image format as in JPG and PNG. Preprocessing the image such as reshaping to standard size, Noise removal, Normalization.
FR-3	Sequence Detection & Digit Isolation	From entire area identify the area contain the sequence of digits From sequence isolation each digit
FR-4	Recognition	Classify the digit to one of the 10 digits use of deep learning tech

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Website is user friendly.
NFR-2	Security	The uploaded images are stored safely and is encrypted.
NFR-3	Reliability	It works for all kinds of inputs.
NFR-4	Performance	It can be also used for sequence of digits.
NFR-5	Availability	IBM cloud is used which ensures that the application is highly available across multiple regions through redundancy and maintaining replications.
NFR-6	Scalability	IBM cloud servers are used which can be scaled dynamically according to the demand, providing elasticity

