

SOLUTION REQUIREMENT

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement	Sub Requirement
1	Dataset	Import MNIST
2	Neural networks	Build the networks Activate the neural networks
3	GUI	Upload the handwritten digit images
4	Prediction	Predict the images using NLP and neural networks.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	postal mail sorting, bank check processing, form data entry, etc.
NFR-2	Security	It ensures security in a way that the images uploaded for recognition will not be stored once the recognition is done.
NFR-3	Reliability	Failure free operation Recognize digits without interruption
NFR-4	Performance	accuracy of approx(98–99) percent in correctly classifying the handwritten digits. Beyond this number, every single decimal increase in the accuracy percentage is hard.
NFR-5	Availability	to recognize the human handwritten digits from different sources like images, papers, touch screens, etc, and classify them into 10 predefined classes (0-9).
NFR-6	Scalability	They are effective in obtaining good recognition accuracies.