

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

Date	03 October 2022
Team ID	PNT2022TMID22012
Project Name	A Novel Method For Handwritten Digit Recognition
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 Input	GUI allows the user to input image by browsing the device storage
FR-2	Model	The MNIST dataset should be trained using CNN to create a trained model
FR-3	Prediction	The trained model has to be tested by using the test data provided by MNIST and the accuracy of the model should be above 90%
FR-4	Evaluation	Ensure that the output produced by the model is correct

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Hand written digit recognition is one of the major important issues in pattern recognition application. Some of the applications for digit recognition include data entry forms, Bank check processing etc.
NFR-2	Security	The application of hand written digit recognition can be used in the banking sector where it can be used to maintain the security pin numbers safely.it can be also used for blind-people by using sound output.
NFR-3	Reliability	Reliability indicates the probability that the system 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-4	Performance	The standard implementations of neural networks achieve an accuracy of approximately(98-99)