

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

Date	16 October 2022
Team ID	PNT2022TMID21878
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	User Input	By accessing the device storage, the GUI enables the user to input an image.
FR-2	Model	To generate a trained model, the MNIST dataset needs be trained using CNN.
FR-3	Prediction	The trained model must be tested using test data provided by MNIST, and the model's accuracy must be more than 90%.
FR-4	Evaluation	Verify the model's output to make sure it is accurate.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Can correctly predict digits. The model can be utilised for data entry, processing bank checks, etc.
NFR-2	<b>Security</b>	Because the uploaded image is not kept in a database, it guarantees security.
NFR-3	<b>Reliability</b>	Can process sensitive data without it leaking because it's never saved in a database.
NFR-4	<b>Performance</b>	Enhanced rapid prediction. To make reliable predictions, we use the CNN algorithm.
NFR-5	<b>Availability</b>	Accessible through mobile and web browsers.
NFR-6	<b>Scalability</b>	Provides many people with assistance while requiring little time and great accuracy.