

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

Date	11 October 2022
Team ID	PNT2022TMID26315
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 Web Application
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP Confirmation via Password
FR-3	User Login	Login via Registered Username. Login via Email & Password.
FR-4	User Authentication	Authentication through Captcha Banking sector: Authentication through IFSC code & Authentication through finger print Library and postal sector: Authentication through Identification Card .
FR-5	User Input	Upload the input as Scanned image Upload the input from Database Get the input as Real time image
FR-6	System configuration	RAM At least 4GB System with Graphical User Interface Camera with better resolution
FR-7	Business Rules	System provides an error message when the input is not in a required format. Minimum resolution of image should be of 180 DPI. Size of the image should not exceed 1MB.

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Useful for areas that deal with large databases to reduce complexity . User friendly.
NFR-2	<b>Security</b>	Access only to authorized persons. Easy to track users.

NFR-3	<b>Reliability</b>	This model is highly trained, accuracy is highly improved.
NFR-4	<b>Performance</b>	Reduces a human supervision and improves Efficiency.
NFR-5	<b>Availability</b>	Available for every users like Banks, Post Office, Library, etc.
NFR-6	<b>Scalability</b>	Model is predicted to have accuracy of 95% and has opportunity of extending the model to recognize text.

### USE CASE DIAGRAM:

The use case view models functionality of the system as perceived by the users. A use case is a coherent unit of functionality expressed as transactions among the users and the system.

