

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

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| Date | 9 October 2022 |
| Team ID | PNT2022TMID53383 |
| 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 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 | Usability | Useful for areas that deal with large databases to reduce complexity . User friendly. |
| NFR-2 | Security | Access only to authorized persons. Easy to track users. |

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

