**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 18 October 2022 |
| Team ID | PNT2022TMID40359 |
| 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.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story I Sub-Task)** |
| **FR-1** | **User registration** | **Registration through Form**  **Registration through Gmail**  **Registration through LinkedI** |
| **FR-2** | **User confirmation** | **Confirmation via mail**  **Confirmation via sms** |
| **FR-3** | **User Input** | **GUI allows the user to input image by browsing the device storage** |
| **FR-4** | **Model** | **The MNIST dataset should be trained using CNN to create a trained model** |
| **FR-5** | **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-6** | **Evaluation** | **Ensure that the output produced by the model is correct** |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | **Can predict digits with accuracy. The model can be used in bank check processing, data entry etc** |
| NFR-2 | **Security** | **It ensures security as the uploaded image is not stored in any database** |
| NFR-3 | **Reliability** | **Can process confidential information without data leakage as the data is never stored in any database.** |
| NFR-4 | **Performance** | **Improvement in fast prediction. We use CNN algorithm for accurate prediction** |
| NFR-5 | **Availability** | **Available for web and mobile browsers** |
| NFR-6 | **Scalability** | **Helps many individuals with low time consumption and high accuracy** |