

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

Date	15 October 2022
Team ID	PNT2022TMID46690
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	The product essentially converts handwritten digits to digital form.	The user is first asked to draw a number on the canvas, and the model that is built is then utilized to compare the data and provide an output in digitalized form.
FR-2	Recognizing the handwritten digit and displaying	Recognizing the handwritten digit and displaying.
FR-3	Import the dataset file directly to the program from a command that will download the dataset from its website. Save the dataset file in the same directory as the program	Installing packages and applications
FR-4	Build a Neural Network with a number of nodes in the input layer equal to the number of pixels in the arrays	Nil
FR-5	Activating the Neural Network	Packages – TensorFlow

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	System design should be easily understood and user-friendly to users. Furthermore, users of all skill levels should be able to navigate it without problems.
NFR-2	<b>Security</b>	The system should automatically be able to authenticate all users with their unique usernames and password
NFR-3	<b>Reliability</b>	Should consistently perform according to its specifications.
NFR-4	<b>Performance</b>	Should reduce the delay in information when hundreds of requests are given.
NFR-5	<b>Availability</b>	Information is restricted to each user with limited access

NFR-6	<b>Scalability</b>	The system should be able to handle 10000 users accessing the site at the same time
-------	--------------------	---