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

Date	19 October 2022
Team ID	PNT2022TMID34890
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	Extended dataset	The MNIST database (Modified National Institute of Standards and Technology database) is a large database of handwritten digits that is commonly used for training various image processing systems
FR-2	Data requirement	Data: classify them into 10 predefined classes (0-9). Reference data : data that is used as part of the Decision-making approach.
FR-3	Linear Regression	Linear Regression is a machine learning algorithm based on supervised learning. It performs a regression task. Regression models a target prediction value based on independent variables
FR-4	Other Requirements	IBM cloud login Chrome extension features
FR -5	Hardware requirement	2GB RAM(minimum) 100GB HDD(minimum) Intel i3 quad core 1.66GHz processor(minimum)
FR -6	Internet Connectivity	The web application requires internet connectivity for Operating.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	It results in children understanding the concept of a digit at an earlier age. It results in better digit formation, Children don't have to adapt at age eight. This system is really used as it can able to recognize the hand written digit it is also useful to detect the variation of hand writings.
NFR-2	**Security**	This project doesn't contain any secured information's so there is no role of security factors
NFR-3	**Reliability**	The performance of the system would be really good. Probability of giving false regression is very low. As the system is working based on the linear regression algorithm, it would easily predict and regression the correct digit.
NFR-4	**Performance**	The effectiveness of the method relies greatly on the training dataset, classification algorithms and the available details entered by the users.
NFR-5	**Availability**	The availability of this solution is high. And it should be helpful in a great way to determine a novel handwritten digit recognition system.
NFR-6	**Scalability**	Since this application is developed using AI, It has several advanced features. It can be used in any devices.