

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

Date	07 October 2022
Team ID	PNT2022TMIDxxxxxx
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	image upload	in the image upload screen, user can upload the image; upon successful validation, image will be uploaded for processing after uploading the image, it is checked if it lies within the recommended size limits
FR-2	choosing dataset	finding suitable dataset(handwritten digits) for the application
FR-3	preprocessing dataset	analyze the dataset encode categorical data
FR-4	training model	add the required number of layers and nodes for each layer in the neural network
FR-5	testing model	test the dataset with the trained model
FR-6	deployment	deploy the application on ibm cloud

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	intuitiveness of the design user has to get the task done quickly
NFR-3	<b>Reliability</b>	system should not experience failure frequently system should produce accurate results everytime
NFR-4	<b>Performance</b>	efficiently loading 3rd party services reduced time complexity of prediction
NFR-5	<b>Availability</b>	reduced application down-time
NFR-6	<b>Scalability</b>	performance should not be disturbed at high work-loads