Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	Week 4
Project Name	A Novel method for handwritten digit recognition system
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Functional Requirements:

FR No.	Functional Requirement	Sub Requirement
1	Input	• **Inputs** is in the form of the **images**. (JPG, PNG)
2	Error detection	• System shall show the error message to the user when the **input** given is **not** in the **required format**.
3	Detect Target	• System should **detect characters** present in the image. • Must be able to perform classification and should recognize thehandwritten input
4	Output	• System should **retrieve characters** present in the image and display them to the user. • Must be able to display the accurate output in text format.

Non-functional Requirements:

NFR No.	Non-Functional Requirement	Description
1	Usability	• Application for digit recognition to map Roll numbers and the test scores obtained by students in an examination • Other applications can include filling out forms, processing bank checks, and sorting mail. • It can also used for blind-people by using sound input.
2	Security	• Banking sector where it can be used to maintain the security pin number safely.
3	Reliability	• This software will work reliably for low resolution image and not for graphical images • The standard implementations of neural networks achieve an accuracy of approximately
4	Performance	• Software will perform its intended function for a large period of sufficient time and also it will operate in a secured environment without any failures.

5	**Availability**	• This system will retrieve the handwritten text regions only if the image contains written text in it.
6	**Scalability**	• System can work normally under any amount of handwritten data that is given as input.