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

Date	20 June 2025
Team ID	LTVIP2025TMID60795
Project Name	Pattern Sense: Classifying Fabric Patterns Using Deep Learning
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 Interface	Upload fabric image from user device
FR-2	Image Preprocessing	Resize, normalize, and clean uploaded images
FR-3	Pattern Classification	Predict fabric pattern using trained CNN
FR-4	Result Display	Show predicted pattern name and confidence score
FR-5	Feedback Mechanism	Allow users to submit feedback on classification accuracy
FR-6	Admin Dashboard	View statistics: number of uploads, feedback, accuracy report

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Simple interface to upload images and view predictions
NFR-2	Security	Ensure data privacy for uploaded images
NFR-3	Reliability	System should consistently provide accurate classification results
NFR-4	Performance	Classification should complete in under 3 seconds per image
NFR-5	Availability	The system should be available at least 99% of the time
NFR-6	Scalability	System should handle increasing number of image uploads without crashing