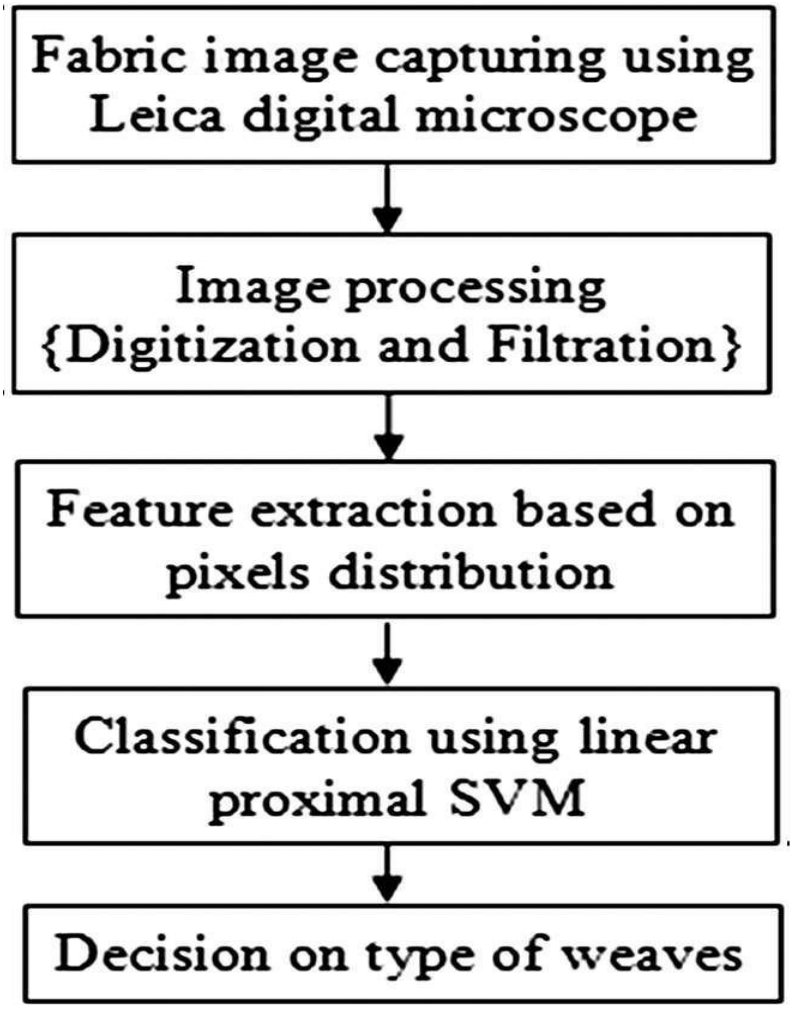
Project Design Phase-II Data Flow
Diagram & User Stories

Date	1 July 2025
Team ID	LTVIP2025TMID42218
Project Name	Pattern Sense: Classifying Fabric Patterns using Deep Learning
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a tradi onal visual representa on of the informa on flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the informa on, and where data is stored.

Flow Diagram:



User Stories

Use the below template to list all the user stories for the product.

User Type	Func onal Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release

Admin / Developer	Dataset & Preprocessing	USN-1	As a developer, I want to upload and preprocess fabric images so the model receives clean, normalized data.	Images are resized, augmented, and stored in the correct format.	High	Sprint-1
	Define Pa ern Categories	USN-2	As a researcher, I want to define and standardize fabric pa ern categories for consistent labelling..	A finalized list of labels is available and used across dataset and model training.	High	Sprint-1
System	Image Classifica on Model	USN-3	As a system, I need to classify fabric pa erns using a CNN model and return the top predic on with confidence.	Model provides output within acceptable accuracy threshold (e.g., >85%) and includes confidence score.	High	Sprint-2
	Model Training & Evalua on	USN-4	As a developer, I want to train	Model is trained, tested, and	Low	Sprint-3

User Type	Func onal Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release

			the model using the prepared dataset and evaluate it using valida on/te st splits.	evalua on metrics (accuracy, F1score) are documented		