

Ideation Phase

Define the Problem Statements

Date	31 January 2025
Team Id	LTVIP2025TMID41819
Project Name	Pattern Sense: Classifying fabric patterns using deep learning
Maximum Marks	2 Marks

Patterns Sense: Classifying Fabric Patterns Using Deep Learning

Customer Problem Statement Template

(Focused Only on Fabric Pattern Classification)

Reference Format:

Problem Statement (PS)

I am (Customer)

I'm trying to (Goal)

But (Obstacle)

Because (Underlying Reason)

Which makes me feel (Emotion/Impact)

Example Customer Problem Statements for Pattern Classification

Problem Statement	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A textile designer	Search for inspiration or filter fabric options by pattern type	I can't easily find or filter fabrics by visual pattern (e.g., floral, striped) online	Most fabric catalogs are not visually categorized using intelligent pattern classification	Frustrated and creatively blocked
PS-2	A fashion retailer or buyer	Organize and tag thousands of fabric images by pattern	Manual sorting is slow and subjective	There's no reliable AI tool to classify fabric patterns automatically	Overwhelmed and inefficient
PS-3	A digital fabric printing service	Offer customers preview designs using pattern categories	My system doesn't understand or classify pattern types	Visual search and auto-tagging based on patterns is not available	Technologically limited
PS-4	A machine learning researcher in textiles	Build a high-quality dataset for fabric pattern recognition	Most pattern datasets are unlabeled or inconsistent	There's no standardized benchmark for fabric patterns	Stalled in research progress

Problem Statement	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-5	A fashion startup	Recommend fabrics by visual similarity	The system doesn't understand "style" at a pattern level	Current ML tools don't classify or compare patterns intelligently	Blocked from delivering value

Summary

- Customers across fashion, textiles, e-commerce, and research face a lack of intelligent tools to classify or work with fabric patterns.
- The absence of automated pattern recognition causes manual overhead, creative bottlenecks, and inefficiencies in product design, sorting, search, and analysis.
- A deep learning-based pattern classification system can solve real pain points, improve workflow, and enhance user satisfaction across the industry.

