

PATTERN SENSE: CLASSIFYING FABRIC PATTERNS USING DEEP LEARNING

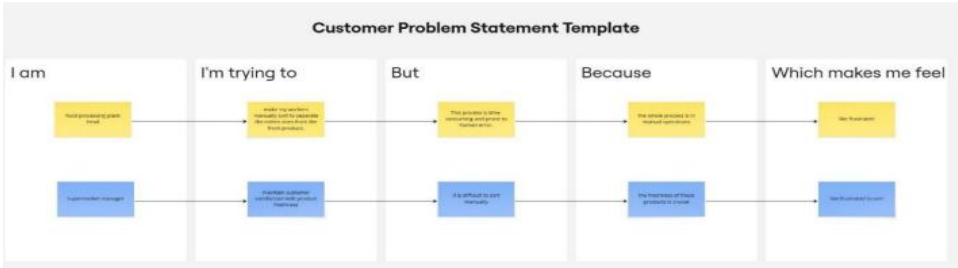
IDEATION PHASE

Problem Statements

Date	27 June 2025
Team ID	LTVIP2025TMID59820
Project Name	Pattern Sense: Classifying Fabric Patterns Using Deep Learning
Maximum Marks	2 Marks

Customer Problem Statement Template:

Textile manufacturers, designers, and quality inspectors struggle with misclassification of fabric patterns during production. Traditional manual inspection techniques fail to consistently and accurately identify diverse patterns across high volumes of fabrics. This project uses transfer learning to build an image-based classification system that distinguishes various fabric patterns (e.g., stripes, florals, checks) with high accuracy and speed.



Problem Statement (PS)	I am (Customer)	I’m trying to	But	Because	Which makes me feel
PS-1	Textile production manager	Ensure fabrics are correctly classified by pattern	Manual inspection is inconsistent and error-prone	The volume of fabric is too high for manual checking	frustrated inefficiency
PS-2	Quality control inspector	Maintain accuracy of pattern classification to avoid costly mistake	It's slow and depends on human judgment	Pattern details can be subtle and hard to distinguish manually	worried about quality issues

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