S.No.	Parameter	Descrip on
1.	Problem Statement (Problem to be solved)	In the tex le and fashion industries, iden fying and categorizing fabric pa erns (e.g., floral, striped, polka dot, geometric) is essen al for inventory management, design cataloguing, quality control, and customer recommenda on systems. Tradi onally, this task relies on manual inspec on, which is me-consuming, subjec ve, and prone to inconsistency. With the growth of digital fashion pla orms and largescale tex le produc on, there is a pressing need for an automated, scalable, and accurate method to classify fabric pa erns from images. .
2.	Idea / Solu on descrip on	Pa ern Sense is an intelligent fabric pa ern classifica on system powered by deep learning. It aims to automate the recogni on and categoriza on of fabric pa erns (e.g., floral, striped, polka dots, geometric, abstract) directly from image data, elimina ng the need for manual inspec on.
3.	Novelty / Uniqueness	Pa ern Sense introduces a novel approach to fabric pa ern classifica on by applying deep learning techniques specifically tailored to the unique visual characteris cs of tex le pa erns — a domain that remains underexplored compared to more common image classifica on tasks like object or face recogni on.

4.	Social Impact / Customer Sa sfac on	Pa ern Sense has the poten al to create meaningful social and economic value by transforming how the tex le and fashion industries manage, classify, and

Project Design Phase Proposed
Solu on Template

Date	1 July 2025
Team ID	LTVIP2025TMID37054
Project Name	Pattern Sense: Classifying Fabric Patterns using Deep Learning
Maximum Marks	2 Marks

Proposed Solu on Template:

Project team shall fill the following informa on in the proposed solu on template.

		interact with fabric pa erns. Its deep learning–based approach not only streamlines business opera ons but also improves accessibility, sustainability, and customer sa sfac on.
5.	Business Model (Revenue Model)	Pa ern Sense is posi oned as a B2B (Business-toBusiness) and B2B2C (Business-to-Business-to-Consumer) solu on targe ng the tex le, fashion, and ecommerce sectors. The product offers scalable and intelligent fabric pa ern classifica on through AI, and the revenue model is built around mul ple mone za on streams.
6.	Scalability of the Solu on	Pa ern Sense is inherently designed to scale — both in terms of technology and business impact — to meet the growing demands of global tex le, fashion, and ecommerce industries. Its modular, AI-driven architecture and cloud compa bility ensure that the solu on can be easily expanded, upgraded, and adapted for broader use.

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