Project Design Phase
Solution Architecture

Date	20 June 2025
Team ID	LTVIP2025TMID60795
Project Name	Pattern Sense: Classifying Fabric Patterns Using Deep Learning
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture for *Pattern Sense* is a structured process that bridges the gap between the fabric classification challenges in the textile industry and deep learning-based technology solutions. Its goals are to:

- Identify the most effective AI-based approach to automatically classify fabric patterns with accuracy and speed.
- Define the structure, behavior, and design of the deep learning model for key stakeholders, including fashion designers and manufacturers.
- Specify the required features, development stages (like dataset preparation, model training, and deployment), and functional capabilities of the system.
- Establish clear specifications for how the AI solution should be designed, trained, managed, and delivered across real-world textile workflows.

Example - Solution Architecture Diagram: