**Project Design Phase**

**Solution Architecture**

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| 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:**

