

Project Design Phase
Solution Architecture

| | |
|---------------|---|
| Date | 15 February 2025 |
| Team ID | LTVIP2025TMID32512 |
| Project Name | Classifying fabric patterns using deep learning |
| Maximum Marks | 4 Marks |

Solution Architecture:

Solution architecture is a complex process – with many sub-processes – that bridges the gap between business problems and technology solutions. Its goals for this project are to:

- Find the best tech solution to automate the classification of fabric patterns using deep learning.
- Describe the structure, characteristics, behavior, and other aspects of the deep learning system to project stakeholders.
- Define features like image input, pattern detection, classification output, and user interface components.
- Outline development phases: dataset preparation, model training, evaluation, deployment via a web/app interface.
- Provide specifications according to which the solution is defined, managed, and delivered.

Example - Solution Architecture Diagram:

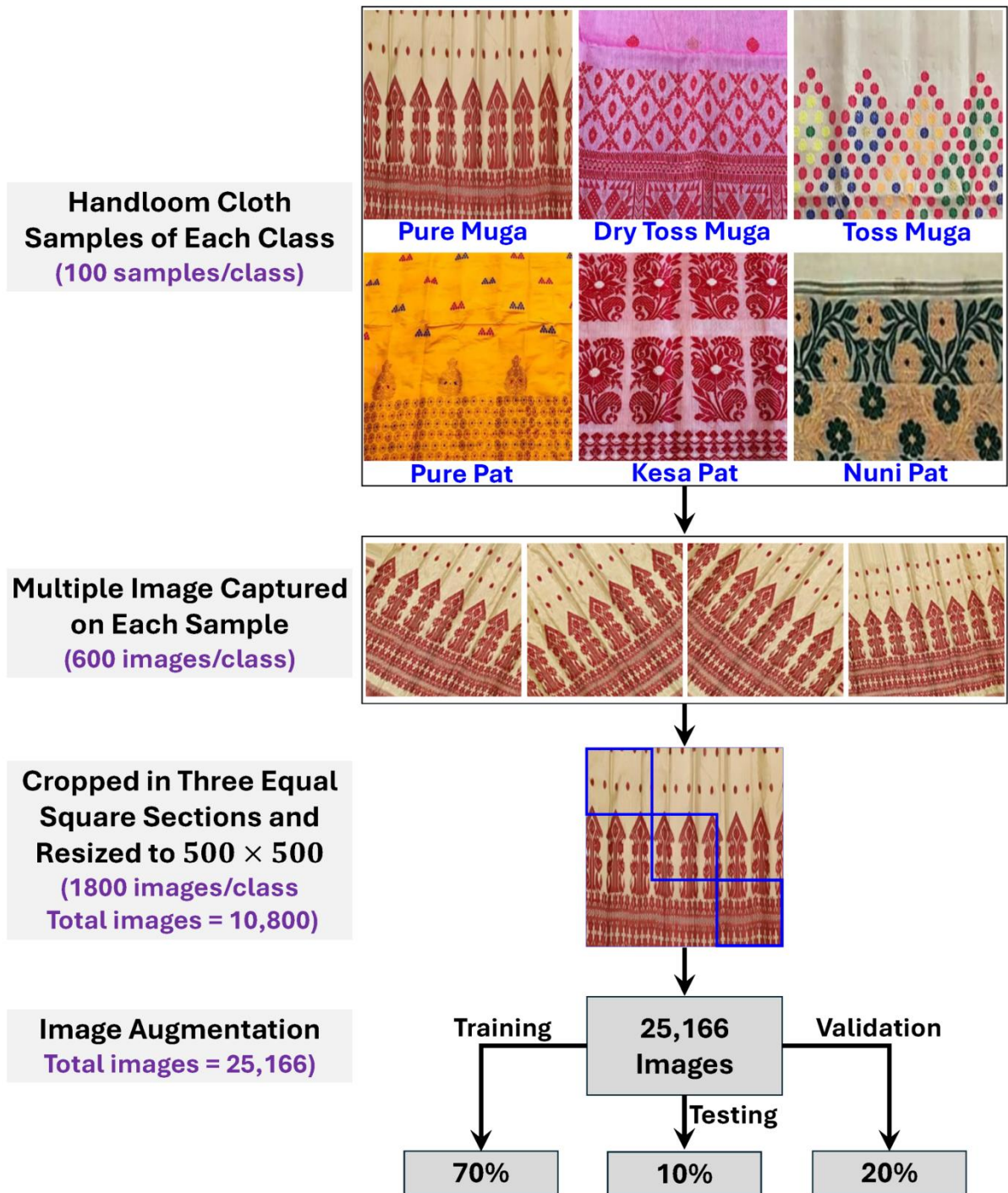


Figure 1: Architecture and data flow of the voice patient diary sample application

Reference: <https://aws.amazon.com/blogs/industries/voice-applications-in-clinical-research-powered-by-ai-on-aws-part-1-architecture-and-design-considerations/>