

4.3 Solution Architecture

Date	15 February 2025
Team ID	LTVIP2025TMID38419
Project Name	<i>GrainPalette – A Deep Learning Odyssey in Rice Type Classification Through Transfer Learning</i>
Maximum Marks	4 Marks

Solution Architecture:

Objective:

To design a scalable and efficient architecture that bridges the problem of rice grain type misidentification by leveraging Deep Learning and a web-based interface for end-users like farmers, researchers, and agricultural stakeholders.

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

- Find the best tech solution to solve existing business problems.
- Describe the structure, characteristics, behavior, and other aspects of the software to project stakeholders.
- Define features, development phases, and solution requirements.
- Provide specifications according to which the solution is defined, managed, and delivered.

Example - Solution Architecture Diagram:

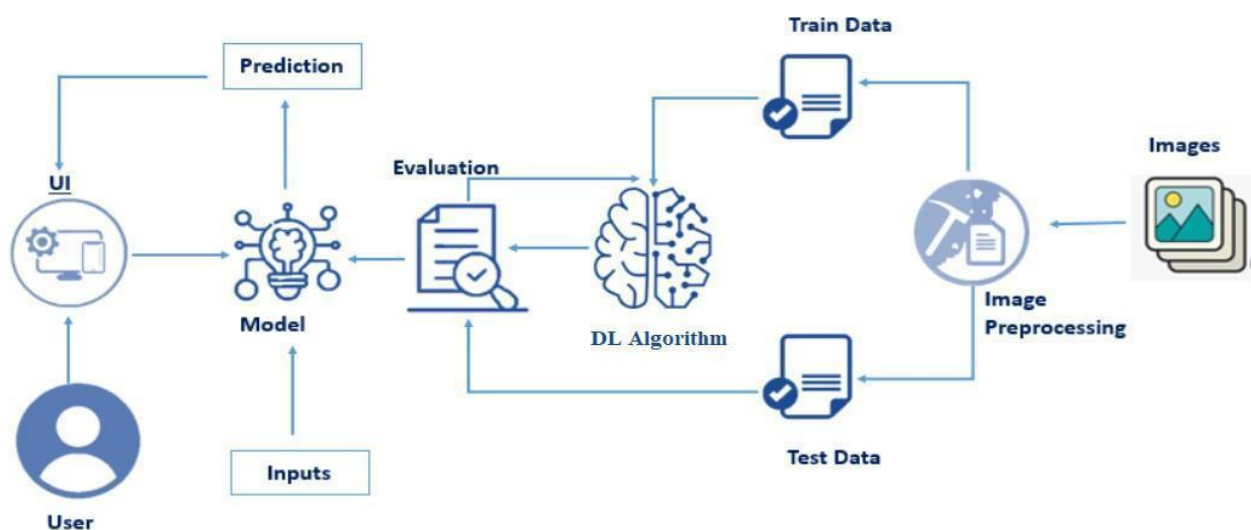


Figure 1: Architecture and data flow of the voice patient diary sample application

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