

## Software Architecture

**Duration – 324 Hours**

### Program Description

This postgraduate diploma program prepares aspiring software architects with the technical, strategic, and communication skills needed to design scalable, resilient, and maintainable systems. It blends foundational architecture principles with modern practices like AI integration, design thinking, and domain-driven design. Participants will gain hands-on experience through a capstone project that simulates real-world architectural challenges.

### Learning Goals

- Apply core software architecture principles to design robust systems.
- Document architectural decisions using ADRs and track NFRs, metrics, and KPIs.
- Communicate effectively with stakeholders and lead architectural discussions.
- Use critical and design thinking to solve complex architectural problems.
- Integrate AI and automation into system design and delivery.
- Implement architecture styles and patterns, including domain-driven design.
- Deliver a comprehensive capstone project demonstrating architectural expertise.

### Course Topics

- Architecture Foundation
- Effective Business Communication and listening
- Critical Thinking and Design Thinking
- Documenting Architectures and ADRs
- NFRs, Metrics and KPIs
- Risk Management
- AI and Automation
- System Design
- Architecture Styles and Patterns & Domain Driven Design
- **Capstone Project: End-to-End Architecture of a Logistics Solution**