

## Salesforce Admin, Development & AI-Enabled Program

### Program Overview

This program is designed to build strong foundations in Salesforce Administration and Development, followed by advanced integration, AI-enabled development, and Agentforce implementation. The curriculum is structured to prepare learners for real-time enterprise projects and job readiness.

### MODULE 1: Salesforce Platform Fundamentals

- Introduction to Salesforce CRM
- Salesforce Ecosystem and Cloud Overview
- Multitenant Architecture
- Salesforce Editions and Licenses
- Metadata vs Data
- Salesforce Environment Setup (Production Org, Sandbox)
- Standard Objects vs Custom Objects
- Salesforce UI and Navigation
- High-Level Platform Architecture Overview

### MODULE 2: User and Security Model

- Users, Profiles and Permission Sets
- Permission Set Groups
- Role Hierarchy
- Login IP Restrictions

- Password Policies and Session Settings
- Delegated Administration
- Authentication Methods
  - Single Sign-On (SSO)
  - Multi-Factor Authentication (MFA)
- User Access Troubleshooting

## **MODULE 3: Data Model and Data Management**

- Object Relationships
  - Lookup Relationship
  - Master-Detail Relationship
  - Junction Objects
- Field Types and Field Dependencies
- Record Types and Page Layouts
- Validation Rules
- Schema Builder
- Data Import Wizard
- Data Loader
- Data Modeling Best Practices

## **MODULE 4: Data Security Model**

- Organization-Wide Defaults (OWD)
- Role Hierarchy vs Sharing
- Sharing Rules
  - Owner-Based
  - Criteria-Based
- Manual Sharing
- Team-Based Access
  - Account Teams
  - Opportunity Teams
  - Case Teams
- Field-Level Security (FLS)
- Record-Level Security
- Real-Time Security Scenarios
- Data Visibility Best Practices

## **MODULE 5: Salesforce Automation**

- Overview of Salesforce Automation Tools
- Salesforce Flow (Core Focus)
  - Screen Flows
  - Record-Triggered Flows
  - Scheduled Flows

- Autolaunched Flows
- Flow Orchestration
- Platform Events (Introduction)
- Approval Processes
- Flow Security and Error Handling
- When to Use Flow vs Apex
- Automation Best Practices

## **MODULE 6: Reports, Dashboards and Analytics**

- Report Types
  - Standard Reports
  - Custom Report Types
- Report Formats
  - Tabular
  - Summary
  - Matrix
  - Joined Reports
- Dashboard Components
- Dynamic Dashboards
- Row-Level Security in Reports
- Report Subscriptions and Scheduling

## MODULE 7: Salesforce Development Fundamentals

- Declarative vs Programmatic Development
- Salesforce MVC Architecture
- Introduction to Apex
- Apex Execution Context
- Governor Limits Overview

## MODULE 8: Apex Programming

- Apex Syntax and Data Types
- Collections
  - List
  - Set
  - Map
- Map of Lists
- SOQL and SOSL
- Dynamic SOQL
- DML Operations
- Wrapper Classes
- Apex Exception Handling
- Bulkification and Performance Optimization
- Secure Coding Best Practices

## MODULE 9: Triggers and Order of Execution

- Trigger Basics
- Before vs After Triggers
- Trigger Context Variables
- Salesforce Order of Execution
- Trigger Framework and Best Practices
- Recursion Control Techniques

## MODULE 10: Asynchronous Apex

- Future Methods
- Queueable Apex
- Batch Apex
- Scheduled Apex
- Use Cases and Governor Limits
- Monitoring and Error Handling

## MODULE 11: Apex Security (Developer Perspective)

- Apex Sharing Keywords
  - with sharing
  - without sharing
  - inherited sharing

- Enforcing CRUD and FLS in Apex
- Secure SOQL and DML
- Common Security Pitfalls

## MODULE 12: Apex Testing and Debugging

- Test Classes and Code Coverage
- @isTest Annotation
- Test Data Factory Pattern
- SeeAllData Usage
- Debug Logs
- Deployment Readiness and Best Practices

## MODULE 13: Lightning Web Components (LWC)

- JavaScript Basics for LWC
- Introduction to LWC
- LWC Architecture
- Component Bundle Structure
- Component Lifecycle
- Data Binding and Events
  - One-Way Binding
  - Two-Way Binding

- Component Communication
  - Parent to Child
  - Child to Parent
  - Unrelated Components
- Apex Integration
  - @wire Service
  - Imperative Calls
- Lightning Data Service (LDS)
- Navigation Service
- Toast Notifications
- Custom Labels and Static Resources
- Custom Permissions
- LWC Performance Optimization
- LWC Security Best Practices

## **MODULE 14: Integrations and APIs**

- Salesforce Integration Overview
- Integration Patterns
- REST API Basics
  - REST Architecture Concepts
  - HTTP Methods

- HTTP Status Codes
- Apex Callouts (Outbound Integration)
  - HTTP Callouts
  - JSON Parsing
  - Exception Handling
- Inbound Integrations
  - Apex REST Services
  - @RestResource Annotation
- Named Credentials
- Connected Apps
- Authentication Methods
  - Username-Password Flow
  - OAuth 2.0 Overview
- Webhooks Concept
- API Testing using Postman
- Error Handling in Integrations

## MODULE 15: AI-Enabled Salesforce Development

### AI Development Tools for Salesforce

- Agentforce AI-Assisted Development
- Cursor AI for Code Generation and Refactoring

- GitHub Copilot and AI Coding Assistants
- OpenAI / ChatGPT Prompt Engineering
- Gemini Prompt Engineering

## **AI Productivity and Prompt Engineering**

- Prompt Design Principles
- Structured Prompt Writing
- Generating Apex, LWC and Flow using AI
- Reviewing and Validating AI-Generated Code
- Responsible AI Usage in Enterprise Projects

## **MODULE 16: Agentforce and Agents Builder**

- Introduction to Agentforce Architecture
- Understanding AI within Salesforce Ecosystem
- Agent Lifecycle and Execution Flow

### **Agent Builder**

- Creating Agents
- Configuring Agent Capabilities
- Managing Agent Behavior

### **Agent Context Variables**

- Understanding Context Variables

- Context-Based Automation

## **Custom Actions**

- Custom Actions using Apex
- Custom Actions using Flow
- Secure Action Execution

## **Prompt Engineering inside Salesforce**

- Prompt Templates
- Prompt Builder
- Testing and Optimizing Prompts

## **AI Governance**

- Data Security in AI
- Ethical AI Considerations
- AI Implementation Best Practices

## **MODULE 17: Real-Time Projects and Capstone**

- Admin-Focused Project Implementations
- Development-Focused Projects
- Integration-Based Project
- AI Agent-Based Project
- 2-3 End-to-End Capstone Projects

- Structured Interview Preparation Material
- Lifetime Access to Training Recordings