



# Salesforce Developer Training Curriculum

## STRUCTURE



## **Salesforce Developer Training Curriculum**

*“Enhance your Skills with a cutting-edge Curriculum of Salesforce Developer Training Program”*

### **Course Objectives:**

- Master the Salesforce Development concepts comprehensively.
- The course we offer ensures job success and acquire all related skills.
- Clear the certification exam with all the skills that have been gathered during the course.
- Understand the basic and complex functioning of Salesforce Platform
- Get advanced training in overall Salesforce terms, methods, tools etc.
- Learn Salesforce developer concepts in a collaborative environment.
- Establish yourself as the most demanded Salesforce Developer across industries

### **Course Description:**

With our Salesforce Developer Training Course, you will get complete knowledge of SFC data models, different building blocks of Salesforce, a deep understanding of the salesforce security model, salesforce apex triggers, salesforce test classes, and Salesforce automation options.

You will be able to master the Salesforce clouds like sales cloud, service cloud, community cloud, analytics cloud, marketing cloud, etc., report generation, dashboards, and the basics of integration. Also, by the end of the Salesforce Developer training, you would be able to deploy and manage applications on the Force.com platform.

By using Force.com fundamentals and declarative user-interfaces, you would get hands-on experience in app development from scratch. You would know how to use formula field, validation rules, the relationship of Salesforce objects, roll-up summary fields, Role hierarchies, workflow, approval, process builder, etc.

There are various benefits that you get when you learn Salesforce admin online with Croma Learning Campus and they are as follows-

- All the sessions are conducted in a real-time environment
- The learners are put in a collaborative ecosystem of learning
- Surprise quizzes, live debates are a part of learner's daily routines
- The course covers all Salesforce development concepts in-depth.
- It is a comprehensive training that covers practical and theoretical training
- It comes with an interesting range of Salesforce admin training materials.
- Learners get real-life projects-based learning and an assured practical training in tools.

### **Course Content Quick Overview:**

- Module 1: Introduction to Salesforce
- Module 2: OOPs Basics
- Module 3: Apex Programming in Salesforce
- Module 4: Web Programming in Salesforce
- Module 5: SOQL and SOSL in Salesforce
- Module 6: DML Operations
- Module 7: VisualForce Tags
- Module 8: Action Components in Visualforce
- Module 9: Controllers in APEX

- Module 10: Schema Programming
- Module 11: Custom Settings
- Module 12: Asynchronous APEX
- Module 13: APEX Triggers
- Module 14: Test Class
- Module 15: Web Services
- Module 16: Salesforce Lightning
- Module 17: Deployment
- Module 18: Annotations
- Module 19: Placement Guide

## **Course Content:**

### **Module 1: Introduction**

- Salesforce.com Overview
- What is Salesforce CRM?
  - Salesforce CRM features and benefits
  - Salesforce CRM Services and Applications
  - Salesforce.com Architecture MVC
  - Comparing MVC to Apps
  - Course Overview
  - Why should you go for development in Salesforce?
  - Salesforce editions and licensing
- Salesforce Sandboxes
  - Sandbox Overview
  - Different Type of Sandboxes
  - Developer Sandbox
  - Configuration only Sandbox
  - Full Copy Sandbox
  - Sandbox Vs Production Environments
- Create your first Salesforce Dev Account
- Salesforce Certifications
- Career as a Salesforce Developer

### **Module 2: OOPs Basics**

- OOPs Basics
- Class & Object
- Inheritance
- Polymorphism (Method Overloading)
- Benefits in Object Oriented Programming Language
- Identifiers
- Variables and its type
- Access Modifiers
- Classes, Construction, & Methods
- Data Types, Variables
- Types of variables

- Getter & Setter Methods, With Sharing & Without Sharing
- Creation of Objects
- Reference Variables
- Final Variables & Static Variables

### **Module 3: Apex Programming in Salesforce**

- Apex Overview
  - Introduction to Apex
  - Purpose of apex
  - Enable Developer mode
  - Overview about Developer Console
- Classes in APEX
  - Language Constructs
  - Understanding the variables
  - Constants declaration in Apex
  - Assign values using expressions
  - Understanding Data types-string, Integer, Decimal, Boolean
  - Loops in apex-do {statement} while (Boolean condition)
  - While statement
  - for statement
  - Conditional statement in apex-If, If else
  - Debug & System Log – Purpose and Use
- Collection in APEX
  - C Collection in apex
  - When to use collection
  - Benefits of using collection
  - Types of collection.
  - List methods in salesforce apex
  - Set methods in salesforce apex
  - Map methods in salesforce apex
  - Difference between List and set

### **Chapter 4: Web programming in Salesforce**

- CSS Introduction
  - What is HTML?
  - HTML Components on VF page
  - What is CSS?
  - Why CSS?
  - Type of CSS
  - Create CSS Class
  - Inline CSS
  - Internal CSS
  - External CSS
  - Static Resource in External CSS
  - Adding External CSS files to the static resources
- JavaScript

- Introduction to JS
- JS Functions Usage in Visualforce
- JS DOM Usage in Visualforce
- JS Events Usage in Visualforce
- JS Validations in Visualforce
- Internal JavaScript
- External JavaScript
- Adding External JavaScript files to the static resources
  - JQuery in Salesforce
  - Using Less Code in Visualforce
  - JQuery Static Resources
  - URL Plugins
  - AutoComplete

## **Chapter 5: SOQL and SOSL in Salesforce**

- Overview on SOQL,
- Overview of SOSL
- Fetching Records on VF Using SOQL
- Inserting Records from VF to Salesforce
- Debug Logs
- Governing Limits in Apex

## **Chapter 6: DML Operations**

- DML statements vs database class methods
- Database DML Operations
- Insert Statement
- Update Statements
- Upsert Statement
- Delete Statements
- Undelete Statements
- Merge Statements
- Rollback operations
- Save Point in DML

## **Chapter 7: VisualForce Tags**

- Tag in Visualforce page
- Use of tag in Visualforce page
- Input & output tags
- Select tag
- Message Tags
- Panel Tags
- Tab and Tab Panel
- Render, Render, RenderAs
- Table tag in Visualforce

- Other VF Tags

## **Chapter 8: Action Components in Visualforce**

- Intro to Visualforce action
- ActionSupport
- Action Function
- ActionStatus
- ActionRegion
- ActionPoller

## **Chapter 9: Controllers in APEX**

- Introduction to Visualforce page
- Controller in Visualforce
- Standard controller, custom controller and extension
- Understanding different Visualforce tag
- Routing to a different page (Page Reference)
- Different action method Visualforce
- Understanding of render, rerender & reRender
- Introduction to dynamic Visualforce
- Implementation of Visualforce page

## **Chapter 10: Schema Programming**

- Schema programming in Apex
- Purpose of schema class
- Objects
- fields
- Selected Options
- Creation of dynamic page

## **Chapter 11: Custom Settings**

- List Custom setting
- Use of custom setting
- Methods in custom setting
- Display data in VF page using custom setting
- Hierarchical Custom Setting
- Methods in Hierarchical Custom Setting

## **Chapter 12: Asynchronous APEX**

- Asynchronous APEX
  - Introduction to Asynchronous process
  - Future Method-Long Running
  - What is Mixed DML error.
  - Implementing Database.Stateful Interface

- Sending email from finish
- Cron job
- Governing Limits
- Test Classes in asynchronous apex
- Batch Apex
  - Batch Apex Overview
  - Multitenant Architecture – Governing Limits
  - How Batch Apex Helps to overcome Governing Limits
  - Different Methods Used in Batch Apex
  - Calling Batch Apex from Developer Console
  - Batch Apex Limitations
- Scheduling Apex
  - Scheduling Apex Overview
  - Different Methods used in Scheduling Apex
  - Apex Scheduling through Standard UI
  - Apex Scheduling through Developer Console
  - Scheduling Apex Limitations
- Dynamic Apex
  - Retrieve objects in the Organization
  - Retrieve Fields of an Object
  - Retrieve picklist values using described calls
  - Field sets on Visual force Programming
  - Dynamic Binding – Dynamic Visual force Page Building

## **Chapter 13: APEX Triggers**

- Overview on Triggers
- Types of Triggers
- Trigger Events
- Context Variables
- Before Triggers
- After Triggers
- Use of NewMap & OldMap
- Execution order of Triggers
- Recursive Triggers
- Validation Rule with Trigger
- Bulkify trigger
- Workflow with Trigger
- Invoking Batch Apex, callouts from trigger
- Invoking Schedule, Future Methods from Trigger
- Best practice in trigger.

## **Chapter 14: Test Class**

- Overview on Test classes
- Apex Unit Testing
- Creating a Unit Test Class

- Unit Test for Governor Limits
- Unit Test Execution
- StartTest, StopTest
- Test Class on Apex class, Batch APEX, Schedule Apex and Triggers
- Best Practices for Unit Testing

## **Chapter 15: Web Services**

- Introduction to web service
- Use and need of web service
- Working with web services
- Types of web service
- Custom web services
- SOAP based web services callouts
- APEX REST-based web services
- RESTful web services callouts

## **Chapter 16: Salesforce Lightning**

- Introduction to Lightning Experience
- Common business issues faced by companies today.
- Lightning Component Framework
- Introduction to aura framework
- Advantages of developing UI using Lightning Components
- Introduction to development using Lightning Component Framework
- Using Lightning Component for embedding Static Resource
- Creation of Lightning Resource using Console
- Steps for creating Lightning Component
- Development of Lightning App
- Lightning Components
- Controller
- Helper classes
- Introduction to lightning events

## **Chapter 17: Deployment**

- Deployment Overview
- Deployment Process
- Prerequisites for Deployment
- Types of Deployment
- Deploying Apex Code
- Deployment through force.com IDE
- Deployment through force.com Migration Tool
- Deployment through Change Sets
  - Changeset Overview
  - Types of Changeset



- Outbound Changeset
  - Inbound Changeset
- Deploying Apex into another org

## **Chapter 18: Annotations**

- Annotation Overview
- Different Annotations Used in Apex
- @future – Webservice Callout
- @RemoteAction – Executing Apex through Script
- @isTest – Define Test Classes

## **Chapter 19: Placement Guide**

- What is an Interview?
- Tips to clear an Interview
- Common Interview questions and answers
- Salesforce Developer Interview Questions and Answers
- Resume Building Guide
- Attempt for Salesforce Developer Global Certification Exam
- Start applying for Jobs

## **All About Salesforce Platform Developer 1 (PD1: 401)**

This is an exam guide intended to people interested in mastering Salesforce Development essentials and want to attempt for Salesforce Platform Developer 1 (PD1:401) certification exam. This is also a prerequisite to attempt the Salesforce Platform Developer 2 (PD2:501) certification exam.

This guide provides information about the target audience for the Salesforce Certified Platform Developer I Exam, and a complete list of exam objectives—all with the intent of helping you achieve a passing score. We highly recommend a combination of on-the-job experience, online Training Program, and self-study to maximize your chances of passing the exam.

The topics to be covered in this exam guide include:

- Target audience for Salesforce Certified Platform Developer I Exam
- About the Exam
- Exam Outline
- Sample Questions for the exam

Let us have a deep dive on all these bullets one by one.

### **Target audience for Salesforce Certified Platform Developer I Exam:**

The Salesforce Certified Platform Developer I exam is intended for an individual who has experience developing and deploying basic business logic and user interfaces using the programmatic capabilities of the Lightning Platform, including practical application of the skills and concepts noted in the exam objectives below.

- Can use the fundamental programmatic capabilities of the Lightning Platform to develop custom interfaces to extend Salesforce capabilities and develop custom business logic.
- Can extend the Lightning Platform using Apex and Visualforce, and understands Lightning Components.
- Is familiar with, and able to leverage relevant declarative capabilities of the platform, where appropriate.
- Knows when to use declarative vs. programmatic methods.
- Is familiar with the development lifecycle from development to testing, and has knowledge of the available environments.
- Is familiar with the Salesforce Mobile app capabilities and the basics of the Lightning framework.
- Knows when to use the Lightning Process Builder vs. an Apex trigger.
- Has experience with object-oriented languages such as Java, JavaScript, C#, Ruby, and .NET.
- Has experience with data-driven applications and relational databases.
- Has experience with Model View Controller (MVC) architecture and component-based architecture.

## About the Exam:

- Content: 60 multiple-choice/multiple-select questions
- Time allotted to complete the exam: 110 minutes
- Passing Score: 65%
- Registration fee: USD 200, plus applicable taxes as required per local law
- Retake fee: USD 100, plus applicable taxes as required per local law
- Delivery options: Proctored exam delivered onsite at a testing center or in an online proctored environment.
- References: No hard-copy or online materials may be referenced during the exam.
- Prerequisite: None required

## Exam Outline:

The Salesforce Certified Platform Developer I exam measures a candidate's knowledge and skills related to the following objectives. A candidate should have hands-on experience developing custom applications on the Lightning Platform and have demonstrated the application of each of the features/functions below.

- Salesforce Fundamentals – 10%
- Data Modeling and Data Management – 12%
- Logic and Process Automation – 46%
- User Interface – 10%
- Testing – 12%
- Debug and deployment – 10%

## Sample Exam Questions:

### Question 1: Which two use cases require a partial copy or full sandbox?

Choose two answers

- A. Scalability Testing
- B. Development Testing
- C. Quality Assurance Testing
- D. Batch Data Testing

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### Question 2: In the Lightning Component framework, where is client-side controller logic contained?

Choose one answer

- A. Apex
- B. Visualforce
- C. HTML
- D. JavaScript

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**3. A developer creates a method in an Apex class and needs to ensure that errors are handled properly. Which three should the developer use?**

Choose three answers

- A. `ApexPages.addErrorMessage()`
- B. A custom exception
- C. `addError()`
- D. `Database.handleException()`
- E. A try/catch construct

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**Question 4: Which two are valid in the where clause of a SOQL query?**

Choose two answers

- A. A geolocation field
- B. An encrypted field
- C. An aggregate function
- D. An alias notation

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**Question 5: What is the correct way to describe how Model-View-Controller (MVC) architecture is implemented on the Salesforce platform?**

Choose one answer

- A. Model: Standard and Custom Objects; View: Visualforce Pages; Controller: s-Controls
- B. Model: Schema Builder; View: List Views; Controller: Setup Console
- C. Model: Standard and Custom Objects; View: Visualforce Pages; Controller: Apex Code
- D. Model: Apex Code; View: List Views; Controller: Setup Console.

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**ANSWERS TO SAMPLE EXAM QUESTIONS**

1. A, D, 2. D, 3. B, C, E, 4. A, D, 5. C
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