

BUILD APPLICATIONS PROGRAMMATICALLY ON THE SALESFORCE PLATFORM (DEX450)



OVERVIEW

Discover how to design and customize pro-code applications on the Salesforce Platform using Apex, Visualforce markup, and the Lightning Component Framework. In this 5-day class, learn how to develop and deploy custom pro-code solutions by writing and testing custom logic, and by customizing the user interface with basic Visualforce pages and Lightning Web Components. Examine how Apex interacts with no-code customizations on the platform, gain a basic understanding of no-code automation tools, and explore the nuances of working on a multi-tenant platform to build cohesive pro-code solutions that meet business demands.

WHO SHOULD TAKE THIS COURSE?

This class is designed for developers looking to write pro-code customizations for business logic and user interface (UI) layers using Apex, Visualforce, and Lightning Web Components. This is also a great class for developers looking to earn their Salesforce Platform Developer I credential.

WHEN YOU COMPLETE THIS COURSE, YOU WILL BE ABLE TO:

- Design custom pro-code solutions that effectively leverage no-code customizations.
- Write basic Lightning Web Components and basic Visualforce markup and code to customize the UI.
- Use Apex triggers and classes to write business logic customizations that use Salesforce Object Query Language (SOQL), Salesforce Object Search Language (SOSL), and Data Manipulation Language (DML).
- Test Apex by using the built-in testing framework.
- Explain how trigger code works in accordance with the Salesforce Order of Execution.
- Understand key fundamentals of designing programs on a multi-tenant platform.
- Use Visual Studio Code, the Salesforce Extension Pack, and Salesforce Command Line Interface (CLI) to learn about modern tools for developing on the Salesforce Platform

PREREQUISITES AND PREWORK

To attend this class:

- You should have a solid understanding of core object-oriented programming concepts
- Although this is not required, it is recommended to have an experience building no-code solutions on the Salesforce Platform or attend [DEX403](#) course

Please complete the following trailmix before attending our expert-led class : [Trailmix, Trailhead Academy](#)

IMPORTANT- COMPUTER SETUP : Students who plan on using their own computer for an in-person or virtual class are expected to follow the steps outlined in the following [Computer Set-up Guide](#).

CERTIFICATION

DEX450 is recommended to prepare Salesforce Certified Platform Developer I exam. Other courses and self-study materials are recommended for this exam. The complete list of prerequisites is provided by Salesforce in the [Exam Guide](#). Registration for an inter-company training session entitles you to a voucher to pass the corresponding certification exam. The voucher, valid for 6 to 12 months, is sent to the trainee on request, at no additional cost. Note that this offer is valid for only one voucher per certification; If you register for multiple courses preparing for the same certification, you will be entitled to only one free voucher.

Note :

- Salesforce certification exam doesn't take place during the training and it's up to the delegate to register to the exam via the webassessor
- We don't recommend passing the Salesforce certification exam directly after attending the course. Additional work must be provided



DURATION
5 days

DELIVERY FORMAT
- Classroom
- Virtual

LANGUAGE
Course in French /
Materials in English

USER INTERFACE
Lightning Experience

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LESSONS & TOPICS

No-Code Automation

- Create Formula Fields
- Create Roll-Up Summary Fields
- Understand Record Types and Dynamic Forms
- Review Additional Automation Tools

Apex Coding

- Define Apex
- Identify Key Characteristics of Apex and Other Coding Languages
- Examine the Role of Transactions and Governor Limits in Writing Apex
- Build a Simple Apex
- Discover sObjects, Primitive Data Types, and Basic Control Statements

Org Data Retrieval Using SOQL & SOSL

- Define SOQL
- Write a Basic SOQL Query
- Process Query Results with Apex
- Create a Query Dynamically at Run-Time
- Define a Relationship Query
- Query Parent-Child Relationships Using SOQL
- Write Child-to-Parent and Parent-to-Child Relationship Queries
- Define SOSL
- Search Data Using SOSL

Org Data Manipulation Using DML

- Define DML
- Identify Different Methods for Invoking DML Operations
- Use Apex to invoke DML operations and handle DML errors

Deployment

- Define Deployment
- Deploy Code Using Change Sets
- Examine Managed, Unmanaged, and Unlocked Packages
- Explore Salesforce DX
- Discover the Salesforce DevOps Center

Apex Trigger Essentials

- Define Apex Triggers
- Review Apex Trigger Use Cases
- Examine Trigger Definition Syntax
- Use Trigger Context Variables

Apex Class Essentials

- Define Apex Classes
- Review Apex Class Use Cases
- Identify Apex Class Data Access Capabilities

Order of Execution, Apex Transactions, and Platform Events

- Define the Salesforce Order of Execution
- Discover How Triggers May be Used and Impacted by the Order of Execution
- Examine the Apex Transaction Lifecycle
- Learn Static Attributes of Memory Lifecycles
- Implement Error Logging Using Platform Events

Apex Testing

- Define the Apex Testing Framework
- Create Apex Test Data
- Write and Run an Apex Test
- Review Apex Testing Best Practices

Design Strategies for Efficient Apex Solutions

- Identify Apex Code Writing Best Practices
- Use Input Data Batches to Write Apex Triggers and Classes
- Write Efficient Database Querying and DML Code

Apex Trigger Design Strategies

- Define No-Code Solutions to Implement Complex Business Logic
- Improve Pro-Code Solutions Using No-Code Functionality

Visualforce

- Define Visualforce
- Display Record Data in a Visualforce Page
- Examine Custom Controllers and Controller Extensions
- Explore List Controllers
- Identify Fundamental Considerations for Visualforce Development

Lightning Components

- Review the Lightning Component Framework
- Create Custom Lightning Web Components
- Retrieve and Display Record Data
- Utilize Lightning Web Component Events
- Perform a DML Operation
- Surface Custom Lightning Web Components

Learn the Foundations of AI

Trailhead Academy classes include a lesson where you'll learn AI concepts, responsible AI practices, and how to use AI and Salesforce together to drive productivity.