

# Introduction to Object-Oriented Programming with Force.com Code (Apex)

## DEV531

### Duration

5 days

### Delivery Format

Instructor-led, regional class



This course provides those who are new to programming with an introduction to object-oriented programming using the Java-like Force.com code (Apex). In this class, you'll learn the basics of creating classes and triggers in Force.com code as well as best practices and development methodology concepts that will help you be successful as you start to build your first Force.com applications. At the end of this class, you'll have an understanding of how to approach your first programming assignment, how to construct basic Force.com code to build on the Force.com platform, and hands-on experience with the Force.com toolset.

### Who Should Take this Course?

This course is ideal for people who are familiar with the Salesforce CRM application user interface (UI) and customizing applications using the Setup menu and who want to gain an understanding of object-oriented programming and develop basic Force.com code development skills.

### Prerequisites

Course participants should be familiar with the Salesforce CRM UI and how to customize applications using the declarative capabilities.

### What You Will Learn

By the end of this course, you'll be able to:

- ⌘ Demonstrate the fundamentals of Force.com code development
- ⌘ Describe object-oriented programming concepts
- ⌘ Evaluate general use cases where Force.com code is a good solution
- ⌘ Consider basic Force.com code syntax, available data types, and potential use of each
- ⌘ List the ways Force.com code can be invoked
- ⌘ Compare and contrast the different types of collections
- ⌘ Write SOQL for loops to handle bulk data
- ⌘ Review execution order and where before and after triggers execute
- ⌘ Test the different governor limits and contexts
- ⌘ Create a unit test for a class using assertion methods
- ⌘ Understand the requirements, steps, and tools available for deploying Force.com code

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“I took three salesforce.com training classes, which were amazing. There were so many ‘Aha!’ moments.”

— John Woods  
Director of Security  
eRX Network

## Course Outline: Introduction to Object-Oriented Programming with Force.com Code (Apex) (DEV531)

### Introduction to Force.com Code

- ⚡ Overview, including Force.com code in the salesforce.com stack, environment requirements, usage scenarios, the development lifecycle, execution methods, and salesforce.com objects and fields
- ⚡ An introduction to object-oriented programming, classes, and objects
- ⚡ Installation and development using the Force.com IDE

### Force.com Code Building Blocks

- ⚡ Classes, variables and methods, and data objects
- ⚡ Data objects and relationships between objects
- ⚡ Force.com code variables, data types, and expressions
- ⚡ Best practices for formatting, commenting, and naming conventions

### Force.com Code Class Construction

- ⚡ Classes and objects, including passing and returning variables, encapsulation, conditions and logic flow control, loops, and exception handling

### Force.com Triggers & Data

- ⚡ Introduction to Force.com triggers, including when to use a trigger, order of execution, creation and development considerations, and governors and limitations
- ⚡ An introduction to querying data with SOQL and SOSL
- ⚡ Data Manipulation Language (DML)

### Testing, Debugging, & Deployment

- ⚡ Debugging scenarios, methods, and tools
- ⚡ Test classes, unit testing, testing requirements and strategies, and considerations and best practices
- ⚡ IDE testing and an overview of Salesforce CRM UI testing
- ⚡ Deployment checklist and preparation steps
- ⚡ Force.com IDE deployment

### Additional Resources & Next Steps

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