



ABAP Objects

Code: BC401v15

5 days

Course Overview

In this course, you will strengthen your ABAP skills by gaining a full understanding of the use of object-oriented programming techniques, and how to apply them practically in your ABAP applications.

This course is aimed exclusively at participants without any knowledge of object-oriented programming.

You should attend both BC400 (ABAP Workbench Foundations) and BC401 (ABAP Objects) to gain in-depth understanding of the ABAP Workbench as well as the ABAP programming language. (ABAP consists of procedural and object-oriented parts. This also reflected in these courses.)

This course is based on software release SAP NetWeaver 7.40 SPS5, plus ABAP development tools.

Who Needs To Attend

- Developer
- Developer consultant
- Help desk / COE support
- Program / project manager

Course Details

Topics Include

- Concepts of object-oriented programming
- Develop business applications with ABAP Objects

Course Outline

1. Introduction to Object-Oriented Programming

- Explaining the Object-Oriented Programming Model
- Analyzing and Designing with Unified Modeling Language (UML)

2. Fundamental Object-Oriented Syntax

- Creating Local Classes
- Creating Objects
- Accessing Methods and Attributes
- Implementing Constructors in Local Classes
- Implementing Class Constructors in Local Classes

3. Inheritance and Casting

- Implementing Inheritance
- Implementing Upcasts Using Inheritance
- Implementing Polymorphism Using Inheritance
- Implementing Downcasts Using Inheritance

4. Interfaces and Casting

- Defining and Implementing Local Interfaces
- Implementing Polymorphism Using Interfaces
- Integrating Class Models Using Interfaces

5. Object-Oriented Events

- Implementing Events in Local Classes
- Implementing Events in Local Interfaces

6. Object-Oriented Repository Objects

- Creating Global Classes
- Defining and Implementing Global Interfaces
- Implementing Inheritance in Global Classes

7. ABAP Object-Oriented Examples

- Using the ABAP List Viewer (ALV)
- Describing Business Add-Ins (BAdIs)

8. Global Classes in ABAP Development Tools

- Developing Eclipse-Based ABAP Programs

9. Class-Based Exceptions

- Explaining Class-Based Exceptions
- Defining and Raising Exceptions
- Implementing Advanced Exception Handling Techniques

10. Unit Testing

- Unit Testing with ABAP Unit

11. Object-Oriented Design Patterns

- Implementing Advanced Object-Oriented Techniques

- Implementing the Singleton Pattern
- Implementing Factory Classes Using Friendship
- Implementing Persistent Objects

12. Runtime Type Services

- Using Runtime Type Identification (RTTI)

13. Creation of a Comprehensive Object-Oriented Application

- Developing a Comprehensive Object-Oriented Application

Prerequisites

- BC400 - ABAP Workbench Foundations