

## BC401: ABAP Objects

### Course Outline

#### Course announcements

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.

#### Course Duration

5 Days

#### Delivery Format

Classroom, Virtual Live Classroom, Hybrid

#### Course Fee

Contact us for more details

#### Goals

This course will prepare you to:

- Understand the concepts of object-oriented programming
- Develop business applications with ABAP Objects

#### Audience

- Developer
- Developer Consultant
- Help Desk / COE Support
- Program / Project Manager

#### Content

- Introduction to Object-Oriented Programming
  - Explaining the Object-Oriented Programming Model
  - Analyzing and Designing with Unified Modeling Language (UML)
- Fundamental Object-Oriented Syntax
  - Creating Local Classes
  - Creating Objects

- Accessing Methods and Attributes
- Implementing Constructors in Local Classes
- Implementing Class Constructors in Local Classes
- Inheritance and Casting
  - Implementing Inheritance
  - Implementing Upcasts Using Inheritance
  - Implementing Polymorphism Using Inheritance
  - Implementing Downcasts Using Inheritance
- Interfaces and Casting
  - Defining and Implementing Local Interfaces
  - Implementing Polymorphism Using Interfaces
  - Integrating Class Models Using Interfaces
- Object-Oriented Events
  - Implementing Events in Local Classes
  - Implementing Events in Local Interfaces
- Object-Oriented Repository Objects
  - Creating Global Classes
  - Defining and Implementing Global Interfaces
  - Implementing Inheritance in Global Classes
- ABAP Object-Oriented Examples
  - Using the ABAP List Viewer (ALV)
  - Describing Business Add-Ins (BADs)
- Global Classes in ABAP Development Tools
  - Developing Eclipse-Based ABAP Programs
- Class-Based Exceptions
  - Explaining Class-Based Exceptions
  - Defining and Raising Exceptions
  - Implementing Advanced Exception Handling Techniques
- Unit Testing

- Unit Testing with ABAP Unit
- Object-Oriented Design Patterns
  - Implementing Advanced Object-Oriented Techniques
  - Implementing the Singleton Pattern
  - Implementing Factory Classes Using Friendship
  - Implementing Persistent Objects
- Runtime Type Services
  - Using Runtime Type Identification (RTTI)
- Creation of a Comprehensive Object-Oriented Application
  - Developing a Comprehensive Object-Oriented Application