Course Outline

Advanced ABAP

Course Summary

Objectives

At the end of this course, students will be able to:

- Acquire in-depth knowledge of the ABAP programming language.
- Write more robust ABAP programs.
- Assess ABAP programming techniques according to performance aspects and develop high-performance programs.
- Gain detailed knowledge of ABAP Open SQL.
- Develop dynamic ABAP programs.

Topics

- ABAP Language Evolution
- Program Calls and Memory Management
- Statements, Functions, and Expressions for Simple Data
- Internal Tables
- Dynamic Programming
- ABAP Open SQL
- Analysis and Testing

Audience

Those who can benefit from this Actual Costing / Material Ledger course include:

- Developer
- Developer Consultant

Prerequisites

Essential:

- ABAP Workbench Foundations
- ABAP Objects

Recommended:

- Practical programming experience in ABAP & ABAP Objects
- ABAP Dictionary

Duration

Five days

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I. ABAP Language Evolution
- A. Explaining the Difference between Statements, Functions and Expressions
- B. Describing ABAP Data Types and Data Objects
- C. Selecting Data from a Singe Database Table with Open SQL

II. Program Calls and Memory Management
- A. Calling Programs Synchronously
- B. Describing the ABAP Runtime and Memory Management
- C. Using Shared Objects

III. Statements, Functions, and Expressions for Simple Data
- A. Using Numeric Data Types in Arithmetic Expressions
- B. Understanding Statements for Processing Character Strings and Byte Strings
- C. Processing Character Strings and Byte Strings Using Functions and Expressions

IV. Internal Tables
- A. Using Standard, Sorted, and Hashed Tables
- B. Using Special Techniques with Internal Tables
- C. Using Expressions for Internal Tables
- D. Using Data References and Field Symbols

V. Dynamic Programming
- A. Explaining the Dynamic Programming Techniques of ABAP
- B. Using Dynamic Statements and Dynamic Calls
- C. Using Generic Data Types
- D. Describing Data Types, Data Objects, and Objects at Runtime
- E. Creating Data Types, Data Objects, and Objects at Runtime

VI. ABAP Open SQL
- A. Describing the Technical Background of Database Accesses with Open SQL
- B. Processing and Aggregating Datasets on the Database
- C. Implementing Complex WHERE Conditions and Special INTO Clauses
- D. Using the Features of the New Open SQL
- E. Selecting Data from Multiple Database Tables
- F. Explaining Additional Techniques for Reading from Multiple Database Tables

VII. Analysis and Testing
- A. Defining and Activating Checkpoints
- B. Using the ABAP Trace
- C. Using the SQL Trace
- D. Using the SQL Monitor