

S4D401

Intermediate ABAP Programming

COURSE OUTLINE

Course Version: 24

Course Duration:

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Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation



Demonstration



Procedure



Warning or Caution



Hint



Related or Additional Information



Facilitated Discussion



User interface control

Example text

Window title

Example text

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Course Overview

TARGET AUDIENCE

This course is intended for the following audiences:

- Development Consultant
- Developer

Lesson 1: Improving Code Quality using ABAP Test Cockpit

Lesson Objectives

After completing this lesson, you will be able to:

- Create ATC check variants
- Perform static code checks with ATC

Lesson 2: Implementing Code Tests with ABAP Unit

Lesson Objectives

After completing this lesson, you will be able to:

- Implement a test class
- Run an ABAP unit test

Lesson 3: Measuring Runtime Consumption with ABAP Profiling

Lesson Objectives

After completing this lesson, you will be able to:

- Profile an ABAP program
- Detect sequential reads using ABAP Profiling

Lesson 4: Analyzing Database Access with SQL Trace

Lesson Objectives

After completing this lesson, you will be able to:

- Start the SQL trace
- Analyze SQL trace results

UNIT 2

Using Data Types and Type Conversions Correctly

Lesson 1: Classifying Technical Data Types in ABAP

Lesson Objectives

After completing this lesson, you will be able to:

- Classify technical data types in ABAP

Lesson 2: Avoiding the Pitfalls of Type Conversions

Lesson Objectives

After completing this lesson, you will be able to:

- Avoid the pitfalls of type conversions

Lesson 3: Calculating with Dates, Times, and Timestamps

Lesson Objectives

After completing this lesson, you will be able to:

- Calculate with dates, times, and timestamps

Lesson 1: Using Translatable Text in ABAP

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the translation process for ABAP developments
- Use text elements for making developments translatable

Lesson 2: Processing Strings Using Functions and Regular Expressions

Lesson Objectives

After completing this lesson, you will be able to:

- Describe built-in string functions in ABAP
- Work with built-in string functions in ABAP
- Explain the use of regular expressions in ABAP

Lesson 1: Implementing Joins

Lesson Objectives

After completing this lesson, you will be able to:

- Implement joins
- Differentiate between inner joins and outer joins
- Implement nested joins

Lesson 2: Working with Expressions in ABAP SQL

Lesson Objectives

After completing this lesson, you will be able to:

- Use some simple expressions in ABAP SQL

Lesson 3: Performing Calculations and String Processing in ABAP SQL

Lesson Objectives

After completing this lesson, you will be able to:

- Perform calculations on the database
- Perform string processing on the database

Lesson 4: Using Special Built-in Functions in ABAP SQL

Lesson Objectives

After completing this lesson, you will be able to:

- Process dates, times, and timestamps on the database
- Use built-in conversions functions

Lesson 5: Sorting and Condensing Data Sets in ABAP SQL

Lesson Objectives

After completing this lesson, you will be able to:

- Request sorted result sets from the database
- Retrieve condensed and aggregated data sets

Lesson 1: Processing the Contents of Internal Tables

Lesson Objectives

After completing this lesson, you will be able to:

- Process the contents of an internal table

Lesson 2: Using Field Symbols to Process Internal Tables

Lesson Objectives

After completing this lesson, you will be able to:

- Process internal tables using field symbols

Lesson 3: Working with Sorted and Hashed Tables

Lesson Objectives

After completing this lesson, you will be able to:

- Work with sorted and hashed tables

Lesson 4: Improving Internal Table Performance Using Secondary Keys

Lesson Objectives

After completing this lesson, you will be able to:

- Improve internal table performance using secondary keys

Lesson 1: Describing the Authorization Concept in ABAP

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the authorization concept in ABAP

Lesson 2: Using CDS Access Controls

Lesson Objectives

After completing this lesson, you will be able to:

- Use CDS access controls

Lesson 3: Using the AUTHORITY-CHECK Statement

Lesson Objectives

After completing this lesson, you will be able to:

- Use the AUTHORITY-CHECK statement

Lesson 1: Implementing Inheritance

Lesson Objectives

After completing this lesson, you will be able to:

- Implement a specialized class

Lesson 2: Using Inheritance

Lesson Objectives

After completing this lesson, you will be able to:

- Use inheritance

Lesson 3: Defining Interfaces

Lesson Objectives

After completing this lesson, you will be able to:

- Define interfaces

Lesson 4: Using Interfaces

Lesson Objectives

After completing this lesson, you will be able to:

- Use Interfaces

Lesson 5: Implementing Factory Methods

Lesson Objectives

After completing this lesson, you will be able to:

- Use factory methods

Lesson 1: Working with Exception Classes

Lesson Objectives

After completing this lesson, you will be able to:

- Work with exception classes

Lesson 2: Defining Your Own Exception Classes

Lesson Objectives

After completing this lesson, you will be able to:

- Define your own exception classes

UNIT 9

Adding Documentation to ABAP Code

Lesson 1: Documenting ABAP Code

Lesson Objectives

After completing this lesson, you will be able to:

- Document ABAP code