

# S4D400

## Basic 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	<i>Example text</i>
Window title	<i>Example text</i>

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# Course Overview

## TARGET AUDIENCE

This course is intended for the following audiences:

- Development Consultant
- Developer



## **Lesson 1: Preparing the Development Environment**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Create an ABAP Cloud project

## **Lesson 2: Taking a First Look at ABAP**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Work with a development object

## **Lesson 3: Understanding Software Structure and Logistics**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Create an ABAP package

## **Lesson 4: Developing Your First ABAP Application**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Create a 'Hello World' application



## Lesson 1: Understanding the Basics of ABAP

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the evolution of ABAP
- Describe the basics of ABAP syntax

## Lesson 2: Working With Basic Data Objects and Data Types

### Lesson Objectives

After completing this lesson, you will be able to:

- Declare data objects
- Assign values

## Lesson 3: Processing Data

### Lesson Objectives

After completing this lesson, you will be able to:

- Perform arithmetic calculations
- Apply string processing

## Lesson 4: Using Control Structures in ABAP

### Lesson Objectives

After completing this lesson, you will be able to:

- Implement conditional branching
- Handle Exceptions
- Implement Iterations

## Lesson 5: Working with Simple Internal Tables

### Lesson Objectives

After completing this lesson, you will be able to:

- Define simple internal tables
- Process data using simple internal tables

## **Lesson 6: Debugging an ABAP Program**

### **Lesson Objectives**

After completing this lesson, you will be able to:

- Enter debugging mode
- Control the execution of code
- Analyze the content of data objects

## Lesson 1: Defining a Local Class

### Lesson Objectives

After completing this lesson, you will be able to:

- Define a local class inside a global class

## Lesson 2: Creating Instances of a Class

### Lesson Objectives

After completing this lesson, you will be able to:

- Create Instances of an ABAP Class

## Lesson 3: Defining and Calling Methods

### Lesson Objectives

After completing this lesson, you will be able to:

- Define and call methods

## Lesson 4: Using Encapsulation to Ensure Consistency

### Lesson Objectives

After completing this lesson, you will be able to:

- Explain encapsulation
- Define and use constructors



## Lesson 1: Investigating a Table Definition

### Lesson Objectives

After completing this lesson, you will be able to:

- Investigate a table definition

## Lesson 2: Implementing Basic SELECT Statements

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe basic features of ABAP SQL
- Read single values from the database

## Lesson 3: Working with CDS View

### Lesson Objectives

After completing this lesson, you will be able to:

- Analyze a CDS view definition
- Read data using a CDS view



## Lesson 1: Declaring a Structured Data Object

### Lesson Objectives

After completing this lesson, you will be able to:

- Declare a structured data object

## Lesson 2: Working with Structured Data Objects

### Lesson Objectives

After completing this lesson, you will be able to:

- Work with structured data objects
- Use structured data objects in ABAP SQL



## Lesson 1: Declaring a Complex Internal Table

### Lesson Objectives

After completing this lesson, you will be able to:

- Declare a complex internal table

## Lesson 2: Working with Complex Internal Tables

### Lesson Objectives

After completing this lesson, you will be able to:

- Fill complex internal tables with data
- Access the content of complex internal tables
- Use complex internal tables in ABAP SQL



## Lesson 1: Analyzing a Business Object

### Lesson Objectives

After completing this lesson, you will be able to:

- Analyze a business object

## Lesson 2: Using the Entity Manipulation Language

### Lesson Objectives

After completing this lesson, you will be able to:

- Implement an EML statement



## Lesson 1: Introducing the Programming Model

### Lesson Objectives

After completing this lesson, you will be able to:

- Describe the process to develop an OData service with the ABAP RESTful application programming model

## Lesson 2: Exploring the Architecture

### Lesson Objectives

After completing this lesson, you will be able to:

- Create a database table
- Generate the development objects for an OData UI service

## Lesson 3: Adding ABAP logic

### Lesson Objectives

After completing this lesson, you will be able to:

- Implement the behavior of a Business Object

## Lesson 4: Improving the User Experience

### Lesson Objectives

After completing this lesson, you will be able to:

- Arrange fields in the app
- Provide input help