

# **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	1 2 3
Warning or Caution	
Hint	
Related or Additional Information	>
Facilitated Discussion	<b></b>
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





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# UNIT 1 Getting Started

# **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 Program

#### **Lesson Objectives**

After completing this lesson, you will be able to:

• Create a 'Hello World' application



# UNIT 2 Applying Basic Techniques and Concepts

# 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

# UNIT 3 Working with Local Classes

# 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

# UNIT 4 Reading Data from the Database

# 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:

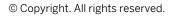
- Describe basic features of ABAP SQL
- Read single values from the database

# 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





# UNIT 5 Working with Structured Data Objects

# 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



# UNIT 6 Working with Complex Internal Tables

# 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



# UNIT 7 Implementing Database Updates Using Business Objects

# 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



# UNIT 8 Describing the ABAP RESTful Application Programming Model

# 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

