

ADM800

System Administration of AS Java-based SAP Systems

COURSE OUTLINE

Course Version: 23

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:

Lesson 1: Explaining the Fundamental Concepts of Java

Lesson Objectives

After completing this lesson, you will be able to:

- Handle basic Java Terminology

Lesson 2: Explaining the Architecture of Application Server Java

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the architecture of Application Server Java

Lesson 3: Identifying the Java Cluster Architecture

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the term Central Services in AS Java
- Understand the Concept of Java Instances

Lesson 4: Exploring the Internal Structure of AS Java

Lesson Objectives

After completing this lesson, you will be able to:

- Get an Overview of the internal structure
- Identify important Managers
- Identify core Services
- Identify different types of Application components

Lesson 5: Explaining Load Balancing in AS Java Environments

Lesson Objectives

After completing this lesson, you will be able to:

- Name different Load Balancing scenarios

Lesson 1: Describing the System Start and Stop Procedure

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the Start and Stop sequence of Instances
- Describe the general Start process of AS Java

Lesson 2: Starting and Stopping SAP Systems

Lesson Objectives

After completing this lesson, you will be able to:

- Operate the Tools to Start and Stop

Lesson 3: Explaining the Java Startup and Control Framework

Lesson Objectives

After completing this lesson, you will be able to:

- Identify the Java Startup and Control Framework
- Describe the individual steps during the Start and Stop procedure of a Java Instance

Lesson 4: Monitoring the System Start and Stop Procedure

Lesson Objectives

After completing this lesson, you will be able to:

- Find the storage locations of trace and log files
- Name the most important trace and log files for troubleshooting

Lesson 5: Appendix: Starting and Stopping Dual-Stack Systems

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the general start process for a Dual Stack System

- Describe the general stop process for a Dual Stack System

Lesson 1: Getting an Overview of Configuration Tools for Server Processes

Lesson Objectives

After completing this lesson, you will be able to:

- Name Configuration Tools and describe their primary usage

Lesson 2: Introducing Identifiers, Parameter Evaluation, and Memory Consumption

Lesson Objectives

After completing this lesson, you will be able to:

- Understand the Node ID and the Parameter Evaluation Sequence

Lesson 3: Configuring Server Processes with SAP NetWeaver Administrator

Lesson Objectives

After completing this lesson, you will be able to:

- Maintain system properties in SAP NetWeaver Administrator

Lesson 4: Configuring Server Processes with Config Tool

Lesson Objectives

After completing this lesson, you will be able to:

- Maintain settings for Server Processes with the Config Tool

Lesson 5: Configuring further Services/Processes

Lesson Objectives

After completing this lesson, you will be able to:

- Check and maintain parameters of the Central Services and the ICM Process

Lesson 1: Describing Network Security

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the need of safeguarding network communication
- Describe which technical components can be protected via secured network protocols
- Classify concepts of Web Service Security

Lesson 2: Configuring TLS

Lesson Objectives

After completing this lesson, you will be able to:

- Maintain ICM Parameters to use SSL
- Describe different encryption methods and authentication
- Point out the relationship between authentication and digital signatures
- Explain the server authentication mechanism used within SSL
- Configure SSL with SAP NetWeaver Administrator

Lesson 1: Identifying the Structure and Configuration of the User Management Engine (UME)

Lesson Objectives

After completing this lesson, you will be able to:

- List the various UME data sources
- Explain the term UME data partitioning
- Determine the current data source
- Identify and modify configuration parameters

Lesson 2: Maintaining Users and Groups

Lesson Objectives

After completing this lesson, you will be able to:

- List and use the tools for administering users and groups

Lesson 3: Differentiating and using Authorization Concepts

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the terms UME role and JEE security role
- Assign actions and JEE security roles to a UME role
- Assign authorizations to users and groups

Lesson 4: Naming special Principles

Lesson Objectives

After completing this lesson, you will be able to:

- List a number of “special” principles
- Activate the emergency user

Lesson 5: Describing Logon Procedures

Lesson Objectives

After completing this lesson, you will be able to:

- List the supported logon procedures
- Change the standard logon procedure
- Explain the structure and functions of login modules
- Explain Kerberos logon (SPNego)
- Configure the X.509 logon procedure

Lesson 1: Configuring Connections to other Systems

Lesson Objectives

After completing this lesson, you will be able to:

- List some communication methods
- Maintain the Destination service and JCo RFC Provider connections

Lesson 2: Appendix: Identifying Connections to other Systems with Java Connector Architecture

Lesson Objectives

After completing this lesson, you will be able to:

- Locate the JCA Connection Factories of the SAP Java Resource Adapter
- Maintain JCA Connection Factory parameters of the SAP Java Resource Adapter and create a new JCA Connection Factory

Lesson 1: Exploring Trace and Log functions

Lesson Objectives

After completing this lesson, you will be able to:

- Use the Log Viewer
- Explain the difference between logging and tracing
- Use log configuration

Lesson 2: Using Local Monitoring functions (SAP MC and NWA)

Lesson Objectives

After completing this lesson, you will be able to:

- Describe the monitoring infrastructure and use SAP MC for Monitoring
- Use SAP NetWeaver Administrator (NWA) for Monitoring
- Adjust threshold values using NWA

Lesson 3: Explaining the Concept of Monitoring Tools in SAP Solution Manager

Lesson Objectives

After completing this lesson, you will be able to:

- Describe System and Application Monitoring in SAP Solution Manager

Lesson 4: Appendix: Connecting AS Java to a Central Monitoring System via CCMS

Lesson Objectives

After completing this lesson, you will be able to:

- Monitor Java instances in the central monitoring system
- Explain which configuration steps are required to be able to maintain the threshold values for Java instances from the central monitoring system

Lesson 1: Preparing for Software Maintenance

Lesson Objectives

After completing this lesson, you will be able to:

- Explain the functions of the Maintenance Planner and perform a maintenance transaction

Lesson 2: Defining Java Support Packages, Stacks and Patches

Lesson Objectives

After completing this lesson, you will be able to:

- Understand the relationship between Product Version, Product Instance and Software Component
- Explain Product Version, Product Instance and Software Component determination
- Describe the relationship between Support Packages, Patches, Support Package Stacks and Support Packages with Patches

Lesson 3: Creating Backups of AS Java core elements

Lesson Objectives

After completing this lesson, you will be able to:

- Explain which regular backups are required for the SAP NetWeaver AS Java

Lesson 4: Importing Corrections for AS Java with Software Update Manager (SUM)

Lesson Objectives

After completing this lesson, you will be able to:

- Call the Software Update Manager (SUM)
- Import Support Packages and Support Package Stacks for SAP NetWeaver AS Java 7.5-based systems.

Lesson 5: Using additional Deployment Tools

Lesson Objectives

After completing this lesson, you will be able to:

- Define alternative deployment tools

Lesson 1: Structuring Java Development

Lesson Objectives

After completing this lesson, you will be able to:

- Identify the structure of Java Development

Lesson 2: Naming the Components of Development Infrastructure (DI)

Lesson Objectives

After completing this lesson, you will be able to:

- List the building blocks of Development Infrastructure and explain their meaning
- Outline the structure of the Design Time Repository (DTR)
- Outline the use of Change Management Service and the enhanced Change and Transport System for the use with SAP NetWeaver Development Infrastructure

Lesson 3: Developing and Releasing Changes with DI

Lesson Objectives

After completing this lesson, you will be able to:

- List the steps required from start to end of developing / changing Java objects

Lesson 4: Transporting Java Developments with DI

Lesson Objectives

After completing this lesson, you will be able to:

- Import changes into the quality assurance system
- List transport steps for the integration of the Change Management Service into the enhanced CTS (CTS+)