Oracle Service Bus 12c: New Features

This Oracle Service Bus 12c: New Features Ed 1 training covers the new features and capabilities of Service Bus 12c as compared to the OSB 11g product version. Other adminstration topics are covered to acquaint new 12c users to the Enterprise Manager Fusion Middleware Control web application, which now augments the Oracle Service Bus Console web application.

Learn To:

- Describe the new features of Oracle Service Bus 12c.
- Understand how, when and why to use the new features of Oracle Service Bus 12c.
- Use the new features of Oracle Service Bus 12c to become more productive as a developer.

Benefits to You

By taking this course, you'll have a seamless transition from Service Bus 11g to 12c. Be it related to the IDE or the usage of Fusion Middleware Control, this course has coverage. You'll get the chance to apply new knowledge and skills through hands-on exercises that give you actual experience developing in the new JDeveloper IDE. Walk away the the ability to troubleshoot and debug tasks as well.

Prerequisites

Suggested Prerequisite

- Oracle SOA Suite 11g: Build Composite Applications Ed 3
- SOA Adoption and Architecture Fundamentals Ed 1
- Experience using JDeveloper

Required Prerequisite

- Oracle Service Bus 11g: Design & Integrate Services Ed 1
- Oracle Service Bus 11g: System Administration Ed 1
- Oracle Service Bus 11g Design and Development Experience

- XML Programming Experience

Audience

- Architect
- Developer
- Implementer

Objectives

- Become familiar with the new features of Oracle Service Bus 12c
- Describe the differences between the three Quick Start Domain options
- Understand the basic usage of JDeveloper for creating Oracle Service Bus projects and resources
- Populate MDS repository with source data
- Access the Fusion Middleware Control Console and identify its various Service Bus options
- Describe the message flow process
- Monitor the health of your service bus
- Editing the Oracle Diagnostics Log (ODL) configuration
- Use the new Disable/Enable feature for stages & actions
- Debug SB message flows from within JDeveloper
- Describe the role of XPath, XQuery, and XSLT in the way Service Bus handles data
- Describe JCA transport and adapters
- Migration of OSB 11g projects to SB 12c
- Explain how Oracle MFT works with SB to handle large message transfers
- Use the new REST binding wizard for creating REST-ful SB services

Topics

- Overview
  - Context of Service Bus within SOA Suite 12c
  - Differences between 11g and 12c installation
  - Overview of course lessons and topics
  - Overview of Service Bus development and adminstration tools
- Quick Start for Developers
  - Leveraging the Quick Start Installer for 12c
  - Starting JDeveloper
  - Configuring Integrated and Stand-Alone domains
  - Creating Application Server connections
- Getting Familiar with SB 12c & JDeveloper
  - Understanding the 12c topology and architecture
  - Using JDeveloper to create SB Projects
  - Using the Service Bus Test console
  - Introduction to Pipeline Message Flow Component
  - Leveraging the new Dependency Explorer
  - Configuring and using the new File-based design-time MDS repository
- Service Bus Administration & Management Tools
  - Using the new Enterprise Manager Fusion Middleware Control for monitoring Service Bus projects and resources
  - Understanding unique and overlapping capabilites between the Service Bus Console and the EM FMW Control
  - Using the new Service Bus Console
  - Understanding session management
  - New Service Bus security roles for 12c

- Shared Variables, Pipelines and Templates
  - Creating and using Pipeline Message Flow components
  - Creating and using user-defined shared context variable across multiple pipeline components
  - Creating and using the new Pipeline Template
  - Unlinking tempate-based Pipeline components
- Monitoring, SLA Alerts and Reports
  - Creating alert destinations
  - Defining SLAs with EM FMW Control
  - Viewing reports with EM FMW Control
  - Monitoring service metrics with EM FMW Control
- Testing and Debugging
  - Configuring and leveraging the new Oracle Diagnostic Log for troubleshooting and debugging
  - Enabling and disabling message flow stages and actions
  - Exploring the Test console options in JDeveloper
  - Using the new Service Bus 12c debugger tool in JDeveloper
- Message Transformations
  - Transforming messages with the new XSLT Mapper tool
  - Creating XQuery transformations with JDeveloper
  - Creating nXSD transformations with the Native Format Builder wizard
  - Using the new nXSD Translate action in message flows
- Adapters & Transports
  - Understanding JCA adpaters and SB transports
  - Using the SOA-DIRECT transport with SOA composite application services
  - Creating REST-ful proxy services using the new REST binding wizard
  - Virtulizing external REST-ful services using the new REST binding wizard
- Additional Topics
  - How to migrate OSB 11g projects and resources to Service Bus 12c
  - Understanding OWSM policy support for Service Bus 12c
  - Understanding MFT and Service Bus integration use cases
  - Configuring and using the new SB Resequencer for 1-way pipeline components
  - Leveraging the Service Bus Maven plugin for SB projects
- Appendix A: Split-Join Message Flow Component
  - Understanding split-join patterns
  - Creating Split-Join Message Flow Components in JDeveloper
- Appendix B: Production Installation of Service Bus 12c
  - Supported configurations
  - Using the Installation wizard
  - Using the Repository Creation Utility (RCU)
  - Creating Service Bus 12c production domains