

# Oracle Service Bus 12c Training Course

## **Introduction**

- Overview of Service and Web Service
- Overview of service-oriented architecture (SOA)
- Need for OSB
- Difference between OSB and SOA
- How 12c is different from 11g

## **OSB Basics**

- Introduction to XML
- Introduction to XSD
- Introduction to WSDL elements
- Difference between concrete and abstract WSDL
- Introduction to SOAP

## *Lab Activity*

- Create XSD from scratch
- Create XSD from XML
- Create WSDL from scratch

## **Installation**

- Overview of the OFMW architecture
- o Overview of the WebLogic server & OSB domain
- o Overview of the admin & managed Server and Meta data schemas
- OSB 12c Installation
- o Standalone Installation along with default domain
- o Full Installation along with compact and expanded domain

*Note:* Installation guide provided for standalone and Full Installation with detail steps

## **Components- Proxy & Business Service**

- Introduction to OSB components
- Proxy Service Introduction
- Business Service Introduction
- New features in 12c

## *Lab Activity*

- Create proxy & business service using JDeveloper
- Create proxy & business service using SB Console

## **Components- Pipeline**

- Introduction to Pipeline
- Benefits of Pipeline component
- Message Flow introduction
- Components
- Actions
- communication

- Flow Control
- Message Processing
- Reporting

#### *Lab Activity*

- Add pipeline component to OSB project
- Go through each message flow component
- Go through each action in message flow

#### **Components- Split Join**

- Introduction to Split Join
- Benefits of Split Join
- Types of Split Joins
  - Static Split Join
  - Dynamic Split Join
- Parallel processing using split joins

#### *Lab Activity*

- Parallel processing using static split join
- Parallel processing using dynamic split join

#### **OSB Debugger and HTTP Analyzer**

- OSB Debugger Introduction
- Benefits of Debugger
- HTTP Analyzer Introduction

#### *Lab Activity*

- Debug Validate Credit card sample using OSB debugger
- Test the OSB sample using HTTP analyzer

#### **Templates**

- Template Introduction
  - Pipeline Template
- Benefits of template and need for template

#### *Lab Activity*

- Create pipeline template
- Deploy pipeline template
- Use pipeline template in OSB application

#### **Messaging and Routing**

- Message context model Concept
  - Variables in OSB
- Routing in OSB
- Service Callout Introduction

#### *Lab Activity*

- Create variables in using JDeveloper and SB Console
- Content Based Routing
- Dynamic Routing
- Invoke external service using service callout

#### **Transformation**

- XSLT Introduction
- Xquery Introduction
- Benefits of Xquery

#### *Lab Activity*

- XML transformation using XSLT
- XML transformation using Xquery

#### **REST**

- REST introduction
- WADL file introduction

#### *Lab Activity*

- Create Restful services with GET & POST method with XML
- Create Restful services with POST method with JSON
- Invoke Restful services
- Convert SOAP service to REST service with one click

#### **OSB and SOA Integration**

- Introduction to SOA-Direct Protocol
- Different method available for SOA and OSB integration

#### *Lab Activity*

- Invoke Synchronous SOA Service from OSB Using SOA-Direct
- Invoke Asynchronous SOA Service from OSB Using SOA-Direct
- Invoke Asynchronous SOA Service from OSB Using HTTP
- Invoke Synchronous OSB service from SOA

#### **MDS**

- Introduction to MDS
- Why MDS needed ?
- Types of MDS
- New features introduced in MDS
- SOA Design time repository

#### *Lab Activity*

- Create, Delete MDS folders & Deploy Files to MDS
- Create file and DB MDS connections
- Export, Import of MDS files
- Usage of MDS file in OSB application

#### **Adapter**

- Introduction to JCA

#### *Lab Activity*

- Adapter Covered
- **File/FTP Adapter**
- XML and Flat File
- File polling
- File reading and Writing
- FTP Outbound Connection Pool
- **Advanced Queuing**

- Reading and sending message
- Configuration
- **Database Adapters**
- Data Source and Connection Pool Introduction
- Table Polling (Logical and Physical Delete)
- CRUD operations
- **JMS adapters**
- Queue and Topic
- Configuration
- Reading and Writing

### **Error Handling**

- Error handling Introduction
- Different error handlers
- Reply & Resume Activity Introduction
- Log & Report Activity Introduction

### *Lab Activity*

- Generate Business Fault
- Handle Business Fault
- Handle Technical Faults
- Generate Fault Alerts

### **Advance Topic**

- Introduction to Enterprise Service Scheduler
- ESS Components
- Schedule services from ESS
- Introduction to Managed File Transfer
- Installation of MFT
- MFT Console overview
- MFT components and features
- File Transfer using MFT