

# Oracle SOA Suite 11g Training Course

## **Introduction & Basic Concepts**

- Overview of service-oriented architecture (SOA)
- Overview of services and web services
- Overview XML, XSD, X Path, XSLT, SOAP, WSDL, UDDI
- The basic concepts of Oracle SOA
- Oracle SOA components

### *Practice*

- How to Create a XSD from Scratch
- How to Create a WSDL from Scratch

## **Installation**

- Overview of the fusion architecture
- Overview of the Web logic server & domain
- Overview of the SOA server and bam server and Meta data schemas.
- Installation steps Oracle Database
- Installation /Creating steps required schemas (RCU)
- Installation steps Weblogic server 11g
- Installation steps soa suite 11g
- Creating the soa domain
- Installation steps Jdeveloper & SOA extension
- Preparing the start and stop scripts for soa server
- Start and stop the admin server

### *Practice*

- Installation document for each installation

## **SCA Architecture**

- SCA Introduction
- SCA components
- Description of Composite.xml
- Describe SOA Composite Editor

## **Jdeveloper & EM Console**

- Jdeveloper overview
- Create connection to soa server
- EM console overview

## **BPEL Process Templates & Interaction Patterns**

- BPEL Component overview
- Orchestrate services through BPEL for a Synchronous Service
- Orchestrate services through BPEL for One-way.
- Orchestrate services through BPEL for an Asynchronous Service

## **Orchestrating Services with BPEL**

- Create Hello World BPEL process.
- Explanation of Below Activities.

- o Receive Activity Syntax.
- o Invoke Activity Syntax.
- o Reply Activity Syntax.
  
- Deploy application to SOA server
- o Major & Minor Application Version.
- o Compilation
- o Build
- o Deployment Tab
  
- Testing from EM console

*Practice*

- Create synchronous BPEL process sample
- Create asynchronous BPEL process sample
- Create one-way BPEL process sample

**Transformation Services**

- Transformation Service
- Map Testing and Analysis
- XSLT Mapping Tool

*Practice*

- Create transformation and do testing

**BPEL Activities**

Explanation of Other BPEL Activities

- o Wait Activity
- o Empty Activity
- o Java Embedding Activity
- o Throw & Terminate Activity
- o Email Activity
- o While Loop Activity
- o Scope & Sequence Activity

*Practice*

- Create BPEL process which contain all above activities

**Parallel Processing and Conditional Branching**

- Processing with Parallel Flows
- o Using Flown activity
- o Using Flow activity
- Conditional Branching
- o Switch Activity
- o Limitation of the Receive activity
- o Pick activity to implement the timeouts
- o Pick activity to receive inputs from multiple operations into a single BPEL

*Practice*

- Create BPEL process with flow & flown activity
- Create BPEL process with Pick activity

**Mediator**

- Introduction to mediator.
- Working with mediators.
- Parallel flows, sequential flows
- Transaction handling in the Mediators

#### *Practice*

- Create sample mediator process

#### **MDS**

- MDS Introduction
- Types of MDS
  - o File Based
  - o DB Based

#### *Practice*

- Connect to File & DB Based MDS
- Deploy files to MDS
- Access files from MDS
- Use MDS files in BPEL & Mediator

#### **Adapters and Accessing Adapter from BPEL**

- Adapter Framework
- File Adapter
- FTP Adapter
- Advanced Queuing
- Database Adapters
- JMS adapters.
- Oracle Apps Adapter introduction
- Fault handling in the ADAPTERS
- Transaction handling in Adapters

#### **Fault Handling and Exception Management**

- Fault types
- Fault handling using Catch and CatchAll blocks
- Handle Fault using Fault handling framework

#### **Human Workflow and Work list Application**

- Human Workflow Service Concepts
- Workflow service components
- Modeling Workflows

#### **Business Rule and Decision Tables**

- Introduction to Business Rules.
- Using Business Rules and Decision tables in BPEL

#### **Code Migration**

- Overview
- Code migration process