



# Oracle SOA/BPEL 11g Course Content

## 1. Overview of Service Oriented Architecture(SOA)

- SOA to a layman
- Overview of SOA
- Advantage in using SOA
- Why is SOA 11g Important
- Building Blocks of SOA
- Overview of XML, XSD, Web-Services, SOAP, UDDI, WSDL

## 2. Modelling SOA : Service Component Architecture(SCA)

- Principles of SOA
- Introduction to Service Component Architecture
- Building blocks of SCA
- Overview of Oracle SOA Suite 11g
- Introduction to Components of Oracle SOA Suite 11g

## 3. Weblogic Server 11g & SOA Topology

- Overview of Weblogic server
- Overview Weblogic Domains and Server instances
- Overview of Oracle SOA Topology
- Setting up Oracle SOA 11g Environment

## 4. Managing and Monitoring Composite Applications

- Overview of Weblogic Console and Enterprise Manager
- Setting up JDev for deploying Composite Applications
- Deploying a Composite Application Using EM
- Creating Partitions for grouping deployments

## 5. Working with Mediator Components

- Introduction to the Mediator Component
- Creating a Mediator Component
- Adding Routing Rules
- Create Content Based Routing filters
- Create XSL Transformations with XSLT Mapper

## 6. Creating Adapter Services

- Architecture of Technology Adapters
- Pre-built technology Adapters in SOA Suite 11g
- Working with a File Adapter
- Configuring Datasources, ConnectionPools, JNDI

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- Working with a Database Adapter

## **7. Business Process Execution Language(BPEL)**

- Introduction to BPEL
- Overview of the BPEL Component designer in Oracle SOA Suite 11g
- Interaction Patterns in BPEL
- Developing & Deploying a simple BPEL Process
- Administer and Monitor BPEL processes in EM

## **8. Activities in BPEL Component Designer**

- Scopes & Variables in BPEL
- Invocation Constructs in BPEL
- Working with Parallel Flows
- Conditional Branching
- Exception Handling
- Oracle Extension Activities

## **9. Orchestrating Services with BPEL**

- Invoking external services in BPEL
- Overview of Partner Link
- Orchestrate services through BPEL for a Synchronous Service
- Orchestrate services through BPEL for an Asynchronous Service

## **10. Fault Handling and Exception Management**

- Events and Timeouts
- Fault and Exception Handling
- BPEL's exception Handling, various activities in it
- Fault Management Framework

## **11. Event Delivery Network**

- Introduction to Event Delivery Network
- Consuming Events from EDN.
- Defining Events and using them.

## **12. Working with Notification Service**

- Notification service concepts
- Adding and configuring a Notification Service
- Configuring Notification via EMAIL

## **13. Human Workflow and Worklist Application**



- Human Workflow Service Concepts
- Features of workflow service
- Workflow service components
- Modeling Workflows
- Work list Application Features

#### **14. Business Rule and Decision Tables**

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

#### **15. SOA Composite Applications Lifecycle**

- Lifecycle and its Importance
- Development environment approach
- Surfacing binding properties to composite Level
- Generating and modifying Configuration Plans
- Test Environment approach
- Production approach

#### **16. Data Handling and SDOs**

- Introduction to SDOs and Key Components
- ADF Business Components –A Quick Primer
- Creating ADF BC Application
- Creating BCs
- Testing Application Module
- Creating Service Interfaces
- Deploying the ADF BC Service.
- Using ADF BC as a Service in BPEL

#### **17. Working with BAM**

- Introduction to Oracle BAM
- Features of Oracle BAM
- Defining Data Object
- Defining BAM Dashboard
- Adding BAM Connection to application
- Adding BAM Adapter to Application
- Adding BAM Sensors to BPEL Process