## PROFESSIONAL TRAINING COURSE



# 5 Days Course on Oracle WebLogic Server 11g: Administration Essentials

# ORACLE®



Two Sigma Technologies
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#### **About the Course**

This course trains Web administrators on techniques for installing and configuring Oracle WebLogic Server 11g. It also trains Web administrators to deploy Java EE applications to Oracle WebLogic Server 11g using Administration Console and command-line and scripting tools like WLST.

#### **Prerequisites**

Basic TCP/IP networking knowledge of client/server concepts. Basic Linux commands and desktop navigation.

### **Course Objectives**

- Monitor application server using GUI and command-line tools such as automation scripts
- Describe the architecture of WebLogic Server including domains, servers and machines
- Install, configure and use WebLogic Server
- Perform routine Oracle WebLogic Server administration functions
- Set up a cluster of servers and distribute applications and resources to the cluster
- Configure Oracle HTTP Server as the Web-tier front end for Oracle WebLogic Server instances and clusters
- Deploy different types of Java EE applications to Oracle WebLogic Server
- Deploy and manage large-scale Java EE applications to servers or clusters through the entire development and
- production lifecycle
- Configure basic resource and application security
- Backup and recover from various failures

**Course Settings** 

Venue/Date	Refer to Training Calendar
Timings	0900-1700
Inclusive	Certificates and notes
Course Fee	Contact Us at sales@2-sigma.com
Audience	IT Officer, Web Developer and Programmer

**Oracle Weblogic – Schedule** 

Oracle Weblogic	Day 1	
· · · · · · · · · · · · · · · · · · ·		
9.00am – 10.00am	<ul> <li>Introducing Oracle Fusion Middleware Platform</li> <li>Describing the Oracle Fusion Middleware Environment</li> <li>Describing How WebLogic Server Supports Various Fusion Middleware Suites</li> <li>Describing How Various Fusion Middleware Suites Augment the Functions of WebLogic Server</li> </ul>	
10.00am – 10.30am	Breakfast	
10.30am – 1.00pm	<ul> <li>Defining Java Enterprise Edition Terminology and Architecture</li> <li>Explaining the Motivation Behind Distributed Systems</li> <li>The Major Components of the Java Platform Enterprise Edition 5 (Java EE) Specification</li> <li>Installing Oracle WebLogic Server</li> <li>Explaining Oracle WebLogic Server Installation Steps</li> <li>Installing WebLogic Server Using Both the Graphical User Interface (GUI) and Command Line</li> <li>Describing the Organization and Contents of the WebLogic Server Directory Structure</li> <li>Navigating the WebLogic Server Online and Offline Documentation</li> </ul>	
1.00pm – 2.00pm	Lunch	
2.00pm – 5.00pm	<ul> <li>Configuring a Simple Domain</li> <li>Describing the Common Elements in a WebLogic Server Domain</li> <li>Describing how Domains are Used in the Enterprise</li> <li>Comparing Administration and Managed Servers</li> <li>Configuring a Domain</li> <li>Describing the Organization and Contents of the WLS Directory Structure</li> <li>Describing the use of WLST Offline to Manage Domains</li> <li>Creating a Simple Domain with One Managed Server</li> <li>Checking the Port Numbers that are Used for Components</li> </ul>	
0.00am 10.00am	Day 2	
9.00am – 10.00am	<ul> <li>Configuring a Domain Using Templates</li> <li>Describing the Internal Process Used to Create or Update a Domain Using a Template</li> <li>Describing the Process of Extending a Domain Template</li> <li>Explaining the Domain Templates Provided for Setting up JDeveloper, SOA, and WebCenter</li> </ul>	
10.00am - 10.30am	Breakfast	
10.30am – 1.00pm	<ul> <li>Using Administration Console and WLST</li> <li>Identifying Dynamic and Nondynamic Attribute Changes in the Administration Console</li> <li>Customizing Monitoring Tables Within the Administration Console</li> <li>Using the WebLogic Scripting Tool (WLST) Command-line Utility</li> <li>Invoking WLST and Navigate Through the Domain Structure</li> <li>Describing How Change Management is Performed Internally Using Java Management Extension (JMX) and Mbeans</li> </ul>	
1.00pm – 2.00pm	Lunch	
1.00pm = 2.00pm	Luilli	

2.00pm — 5.00pm	<ul> <li>Configuring Managed Servers</li> <li>Configuring Managed Servers Using the Administrative Console</li> <li>Configuring Managed Servers Using WebLogic Scripting Tool (WLST)</li> <li>Starting Managed Servers</li> <li>Shutting Down a Server or an Entire Domain Using WLST or the Administrative Console</li> <li>Configuring Managed Servers on a Computer Separate from the Sdministration Server</li> <li>Explaining Administration and Managed Server Independence (MSI)</li> <li>Configuring Node Managers</li> <li>Defining the Oracle WebLogic Server Machine</li> <li>Configuring a Machine and Assign Servers to it by Using the Console and WebLogic Scripting Tool (WLST)</li> <li>Explaining the Node Manager Architecture</li> <li>Describing the Organization and Contents of a Node Manager Directory Structure</li> <li>Configuring, Starting, and Stopping Node Managers</li> <li>Describing How to Start and Stop Procedures</li> </ul>
9.00am – 10.00am	Day 3  Viewing and Managing Logs in Oracle WLS Environment  • Defining and Configuring Server and Domain Logs  • Viewing and Interpreting the Format of Domain and Server Log
	Files Using the Administration Console
	<ul> <li>Configuring Server Standard Output Settings Using the Console</li> </ul>
10.00am - 10.30am	Breakfast
10.30am – 1.00pm	<ul> <li>Describing How Applications Can Integrate With WLS Logging Infrastructure (Apache commons, log4j)</li> <li>Accessing Online Log Message Catalogs</li> <li>Creating and Applying a Log Filter Using the Console</li> <li>Configuring Log Filter Expressions</li> <li>Deployment Concepts</li> <li>Contrasting Autodeploy With Manual Deployment</li> <li>Configuring and Deploying Web Applications Via the Administration Console, Configuring Deployment Descriptors</li> <li>Testing Deployed Applications</li> <li>Describing the Role of Web Servers</li> <li>Tracing a Typical Web Interaction Flow</li> </ul>
	Contrasting Static and Dynamic Content and Deployment
	Front-end Deployed Applications With a Web Server
1.00pm – 2.00pm	Lunch
2.00pm – 5.00pm	<ul> <li>Deploying Java EE Applications</li> <li>Describing Java EE Web Applications</li> <li>Describing Enterprise Deployment Architectures</li> <li>Packaging Web Applications in Several Forms</li> <li>Defining Web Application Structure and Web Application Archive</li> <li>Explaining Why WebLogic Augments Standard Java EE Deployment Descriptors Looking at Deployment Descriptors web.xml and weblogic.xml</li> </ul>
	<ul><li>web.xml and weblogic.xml</li><li>Describing URLs and Web Applications</li></ul>

Day 4		
9.00am – 10.00am	Advanced Deployment	
	Configuring an Application for Multiple Development	
	Environments	
	Creating a Deployment Plan	
	Staging a Deployment Plan	
	Using Production Redeployment	
10.00am – 10.30am	Breakfast	
10.30am - 1.00pm	Understanding JDBC and Configuring Data Sources	
·	Configuring JDBC and JDBC Data Sources	
	Configuring Data Source Scope	
	Contrasting Two-tier and Multi-tier JDBC Architecture	
	Configuring a Connection Pool	
	Describing How Data Sources are Used	
	Deploying JDBC Resources to a Target	
	Explaining the Components of JDBC URLs	
	Monitoring and Testing a Data Source	
1.00pm – 2.00pm	Lunch	
2.00pm – 5.00pm	Setting Up Java Message Service (JMS) Resources	
	Describing JMS	
	Describing How Oracle WebLogic Server JMS is Implemented	
	Configuring JMS Server	
	Configuring Connection Factories	
	Configuring Queues and Topics	
	Configuring Persistent Messages	
	Deploying an Application that Uses JMS	
	Monitoring JMS Resources and Messages	
	Introduction to Clustering	
	The Benefits of Oracle WebLogic Cluster	
	Basic Cluster Architecture	
	Multitier Cluster Architecture	
	Communication Among Clustered Server Instances	
	The Key Criteria for Selecting Suitable Cluster Architecture	
	Day 5	
9.00am – 10.00am	Configuring a Cluster	
	Preparing Your Environment for a Cluster	
	Creating and Configuring a Cluster	
	Adding Servers to a Cluster	
	Starting Up and Shutting Down Clustered Servers	
10.00am - 10.30am	Breakfast	
10.30am – 1.00pm	Managing Clusters	
	<ul> <li>Deploying Applications to a Cluster</li> </ul>	
	<ul> <li>Describing the Replication of a Session State in a Cluster</li> </ul>	
	Configuring Replication Groups	
	Configuring In-memory Replication	
	<ul> <li>Configuring Java Database Connectivity (JDBC) Replication</li> </ul>	
	Configuring File Replication	
	<ul> <li>Configuring a Multitier Cluster for Enterprise JavaBeans (EJB)</li> </ul>	
	Applications	
	Security Concepts and Configuration	
	Using the WebLogic Server (WLS) Security Architecture	
	Configuring Security Realms	

	Configuring Users and Groups
	Configuring Roles
	Configuring Policies
	<ul> <li>Configuring Protection for Web Application Resources and</li> </ul>
	EJBs
1.00pm – 2.00pm	Lunch
2.00pm – 5.00pm	Protecting Against Attacks
	<ul> <li>Describing the Process of Configuring Secure Sockets Layer (SSL)</li> </ul>
	<ul> <li>Using the Keytool Utility to Configure Keys and Obtain Digital Certificates</li> </ul>
	<ul> <li>Configuring SSL for the WLS Server</li> </ul>
	<ul> <li>Configuring Countermeasures for Some Web-based Attacks</li> </ul>
	Backup and Recovery Operations
	<ul> <li>Recommending a Backup and Recovery Strategy</li> </ul>
	<ul> <li>Performing a Full Offline Backup and Recovery</li> </ul>
	Performing an Online and Offline Domain Backup
	Performing an Offline Domain Recovery
	Performing an Instance Home Backup and Recovery

# **More Information**

# **Two Sigma Technologies**

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To register, please email to <a href="mailto:sales@2-sigma.com">sales@2-sigma.com</a> or fax the registration form to 03-61880602, we will contact you for further action.