

WebSphere 6.1 Application Server Administration (5 Days)

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WebSphere 6.1 Application Server Administration (CTI 287)

WebSphere Application Server integrates Java applications, servlets and Web Services into a coherent distributed environment and provides services to applications running under the control of other Application Servers running on other machines in the network. This course teaches students how to configure, administer and control WebSphere Application Server.

Prerequisites: One year of programming with Java. Previous experience with WebSphere Application Server.

Minimum software requirements: Windows XP Service Pack 2 or later or current release of Linux. WebSphere Application Server 6.1.

Minimum hardware requirements: PC at 1 GHz with 1 GB RAM and 30 GB free disk space (before installation).

Microsoft PowerPoint and Internet connection installed on instructor's workstation for presentation purposes.

Module 1: Java Overview

- What is Java?
- Java 2 Platform Features
- Java Compilation Model
- Java Runtime Environment (JRE)
- Application Programming Interface (API)
- Java Applications Development
- Standalone Java Applications
- Browser Run Java Applets
- Web Server Run Java Servlets
- Web Server Run Java Server Pages
- Application Server Run Enterprise Java Beans
- Summary of Features for Administrators

Module 2: J2EE Technology Overview

- Client-Server Architecture
- Client-Server Architecture Issues
- Distributed Objects Overview
- Distributed Objects
- Remote Method Invocation (RMI)
- J2EE Architecture
- J2EE Component Technologies
- J2EE Containers
- J2EE Modules and Applications
- J2EE Services
- J2EE Communication Technologies

Module 3: IBM WebSphere Application Server 6.1

- IBM WebSphere Middleware
- WebSphere Application Server Products
- Single Server Installation and Management
- Distributed Server Installation and Management
- Concept of Profiles
- IBM WAS V 6.1 Directory Structure
- WAS V 6.1 Directory Browsing
- XML Configuration Files
- Profile Management Tool

Module 4: WAS V 6.1 Basic Administration

- Starting/Stopping the WAS Server
- WebSphere Administration Console
- Using the Administration Console
- Common Administrative Tasks
- Managing Nodes
- Managing Enterprise Applications
- Managing Virtual Hosts
- Generating Web Server Plug-In
- WebSphere Variables
- Configuring Resources
- Configuring Security

Module 5: Application Server Configuration

- Create a New Application Server
- Application Server General Properties
- Container Settings
- Session Management
- Server Infrastructure
- Configuring Communication
- Performance Monitoring Infrastructure
- Troubleshooting
- Process Definition Configuration
- Applications, Server Messaging and Additional Properties
- Server Runtime Properties

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Module 6: Application Deployment

- Preparing Application for Installation
- Installation Options
- Map Modules to Server
- Install Messages
- Configuring Application
- Viewing Deployment Descriptions
- Configuring Modules
- Performance Monitoring
- Web Services Configuration
- Application Operations (Start, Stop, Update, Remove)

Module 7: Command Line Administration

- wsadmin
- The jacl Scripts
- Admin Task
- AdminControl
- AdminApp
- AdminConfig
- Using wsadmin-Examples
- Writing jacl Scripts-Examples

Module 8: WebSphere Resources Configuration

- JDBC Provider Configuration
- JDBC Driver Classpath
- Datasource Configuration
- JDBC Connection Pool Configuration
- Mail Provider
- Configuring Mail Sessions
- URL Provider
- MJS Provider
- Configuring Default JMS Objects
- Configuring WebSphere MQ Messaging Provider
- Configuring JCA Resource Adapters

Module 9: Configuring Security

- Overview of Security
- User Registry - Local OS
- User Registry - LDAP Server
- User Registry - Custom Registry
- Server Security Configuration
- Administrative Users and Groups
- Web, IIOP, and JAAS Security
- SSL Configuration
- Application Security - web.xml
- Application Security - ejb-jar.xml

Module 10: Troubleshooting and Monitoring

- Log File System
- Browse through Log Files
- Activity Log
- JVM Log Files Configuration
- Log Detail Levels
- Diagnostic Trace Service
- Configuration Messages
- Runtime Messages
- Performance Monitoring Overview
- Tivoli Performance Viewer
- PMI Settings and Configuration
- Using External PM Software Tools