



WSAD V5.1 BOOT CAMP FOR JAVA PROGRAMMERS

Course Duration: 3 Days

Course Overview: IBM WebSphere Studio Application Developer (WSAD) is a new generation of Java application development environment built on the Eclipse open platform (www.eclipse.org). It has many new features that the traditional IDEs do not provide, for example, the role-based development models, the plug-in based flexibility of developing and adding new functionality to the environment.

This course is intended for Java programmers who are interested in using WSAD to build their applications. Applications you develop during the course are based on the Java 2 Platform, Enterprise Edition (J2EE) component model that uses servlets and JSPs for the control and flow of e-business applications. You are going to use WSAD to develop J2EE applications, including servlets, JSPs, and Enterprise JavaBeans, debug and test them in the WSAD built-in WebSphere Application Server test environment. You will also use WSAD to some other stand-alone Java applications.

Topics Covered:

- Introduction to WebSphere Studio Application Developer
- Installing and setting up WebSphere Studio Application Developer
- Creating Java applications using WSAD
- Creating Web applications (servlets and JSPs) using WSAD
- Testing Web applications using WSAD's WebSphere Test Environment
- Creating EJBs using WSAD
- Deploying J2EE applications to WebSphere Application Server, Advanced Single Server Edition, Version 5.0
- Migrating Java applications to WSAD

This course is based on extensive practical exercises which take students through all major aspects of the design and development of Java programs.

LEARNING OBJECTIVES

- After completing this course, the student should be able to:
- Develop, debug and test Java applications using WSAD
- Develop and test servlets using WSAD
- Develop and test JSPs using WSAD
- Develop and test session EJBs using WSAD
- Develop and test entity EJBs using WSAD
- Use JavaBeans, JSPs and servlets in accordance with the MVC programming model
- Assemble J2EE components and applications and perform integration testing
- Use Ant, JUnit and the built-in profiler features of WSAD
- Create Web Services using WSAD

Who Should Attend: This course is intended for those who have Java knowledge and are interested in using or transitioning to this new and powerful Java application development environment.

Prerequisites: Experienced Java developers who plan to do J2EE development such as Servlet, JSP and EJB developers will benefit from this course.

COURSE OUTLINE

Introduction to WebSphere Studio Application Developer

- WebSphere Studio architecture
- WSAD workspace and workbench
- WebSphere Studio family offerings
- What's new in WSAD v5.1
- WSAD vs. VisualAge for Java

Installing and Setting up WSAD

- Installing WSAD
- Setting up the workbench perspectives (Java, J2EE, Web, Server, Help)
- Setting up the workbench views (Navigator, Editor, Task, Outline)
- Setting up the workbench preferences
- Creating a server instance and server configuration for WebSphere Application Server
- Configuring a server instance
- Starting and stopping the server instance

Creating Java Applications using WSAD

- Creating a Java project
- Creating a class
- Using WSAD editors
- Using WSAD wizards
- Debugging and unit testing with WSAD

Creating Web Applications using WSAD

- Creating a Web project
- Creating servlets
- Creating servlet filters
- Work with Page Designer
- Creating JSPs
- Creating a JavaBean

Creating EJBs using WSAD

- Creating an EJB project
- Creating an entity bean
- Creating a meet-in-the-middle database map
- Using the EJB query language
- Multiple-mapping with CMP entity beans
- Creating a session bean
- Unit testing with the WSAD EJB client

Deploying J2EE applications in WebSphere Application Server

- J2EE application modules
- Configuring J2EE deployment descriptors with WSAD
- Export J2EE modules
- Install J2EE modules in WebSphere Application Server

Migration

- Migrating from Visual Age for Java to WebSphere Studio Application Developer
- EJB migration
- Using third-party JAR files
- VAJ Migration examples
- Migrating from WebSphere Studio Application Developer v4.0.x
- Incompatibilities between v4.0.x and v5.0
- Page Designer "classic" v. Page Designer
- Migrating projects using SCM
- Migrating projects by exporting and importing
- Known problems
- WSAD 4.0 Migration Examples

Team Development

- Understanding architecture and terminology of team development with WSAD
- Versioning systems: e.g. CVS
- CVS Repository Exploring Perspective
- Management of team development actions
- Configuring the team development environment

Building an application with Ant

- Introduction to Ant
- Ant build files
- Built-in Ant tasks
- Creating a simple build file in Ant
- Running Ant
- Working with J2EE and Ant

Profiling your application

- Profiling Concepts
- Configuring WebSphere Test Environment
- Enabling the Profiling Agent in WSAD
- Profiling processes at a remote host

Unit Testing with JUnit

- What is JUnit
- Using JUnit in WSAD
- Creating and running test cases
- Creating and running test suites

Web Services using WSAD

- Web Services overview
- Creating Web Services
- Using Web Services
- Web Services and the UDDI Explorer

Appendix A. Team Development with ClearCase LT