

Chapter 1: Getting Started

You will learn:

- WSAD.
- J2EE business topologies.
- Workbench.
- How to manage a project.
- Workbench components.
- Java development tools.
- Java projects and incremental compilation.
- Web development tools.
- EJB: Enterprise JavaBeans.
- Relational database environment.
- Testing and publishing tools.

Chapter 2: Workbench

You will learn:

- Opening and switching between perspectives.
- Customizing a perspective.
- Setting Java preferences.
- Creating a Java project.
- Importing files into your project.
- Associating file types with editors.
- Outline view.
- Bookmarks view.
- Tasks view.
- Adding methods, resolving errors, and using Content Assist.
- Creating a class.
- Evaluating expressions using the scrapbook.
- Running a Java file.
- Debugging a program.

Chapter 3: Java Applications

You will learn:

- Showing single elements or whole files.
- Changing the appearance of the console view.
- Creating a Java project as its own source container.
- Creating a Java project with source folders.
- Opening the new interface wizard.
- Setting execution arguments.

Chapter 4: Web Projects

You will learn:

- Working with web projects.
- Importing web archive files.
- Creating and editing HTML.
- Working in the Design Page.
- Working with headings.
- Displaying editing details in the status bar.
- Working with forms.
- Working with tables.
- Specifying HTML links.
- Adding links using the Attributes Window.
- Creating applications with dynamic content.
- Creating new JavaServer Pages - JSP files.
- Editing JSP files.
- Creating servlets.
- Creating web pages from SQL queries.

Chapter 5: WebSphere EJB Development

You will learn:

- Server-side component architecture.
- Java 2 Platform, Enterprise Edition.
- Web containers and EJB containers.
- EJB container.
- Entity bean.
- Session bean.
- Deployment of enterprise beans.
- An Enterprise bean and its interfaces.
- Container-managed persistence entity beans.
- Bean-managed persistence entity beans.
- Session bean fundamentals.
- Implementing the `ejbCreate` method.
- Access beans.

Chapter 6: Developing Enterprise Beans – WebSphere Tools

You will learn:

- EJB tools.
- Adding methods to the home and remote interfaces.
- Generating EJB deployment code from the workbench.
- Exporting a EJB project into an EJB JAR file.
- Testing files for the first time using a default test environment.
- Finding an EJB bean.
- Finding an EJB bean when the JNDI name is known.
- Calling an EJB method.
- Publishing an application.
- Working with EJB projects.
- Creating enterprise beans.
- Generating the deployment code.

Chapter 7: Web Pages and Database

You will learn:

- Creating web pages from SQL queries.
- Working with relational databases.
- Connecting to databases.
- Importing DB designs.
- Defining databases.
- Generating SQL DDL.
- Applying scripts to the data perspective.
- Querying databases.

Chapter 8: Deploying Web Applications

You will learn:

- Manual deployment.
- Installing the EAR file on WebSphere AEs.
- Starting the WebSphere AEs Admin console.
- Installing the EAR.
- Testing the application.
- Publishing to a remote server.
- Testing applications.

Chapter 9: Profiling

You will learn:

- Profiling concepts.
- Performance analysis.
- Class statistics.
- Method statistics.
- Heap.
- Object reference.
- Execution flow.

Chapter 10: Web Services Architecture

You will learn:

- Foundation of web service.
- Service oriented architecture.
- SOA stack.
- Developing web services.
- Development strategies for provider and requestor.
- Service life cycle.
- SOAP XML Message Exchange.
- Server deployment.
- WSDL primer.
- Service interface document.
- Bindings.
- UUID.

Chapter 11: IBM Tools for Web Services

You will learn:

- Tools for web services.
- Developing web services.
- Publishing a business entity.
- Publishing a web service.
- WebSphere Studio Application Developer.
- Proxy Class implementation.
- WebSphere Studio Web Service Wizards.
- Architecture and design considerations.
- Architectural positioning.
- Web services and J2EE relationship.
- Web services and MVC - Model-View-Controller design pattern.
- Impact on the operational model.

Chapter 12: Java Message Service

You will learn:

- Messaging.
- JMS and the J2EE platform.
- JMS API architecture.
- Point-to-point messaging domain.
- Publish/subscribe messaging domain.
- JMS programming model.
- Administered objects.
- Message producers.
- Message consumers.
- Simple JMS client.