

# Enterprise Java Programming Using JDeveloper (5 Days)

## Custom Training Institute

9085 Coyote Springs Road  
Prescott Valley, AZ 86314  
(928) 772-3811  
FAX (928) 441-6444

## Enterprise Java Programming Using JDeveloper (CTI 174)

*Students will learn how to design, build, test, and deploy J2EE-compliant Internet applications on the World Wide Web. This course covers all major elements of web application development.*

*Prerequisites: Experience developing business applications; basic knowledge of Java; familiarity with JDeveloper; SQL is helpful. Successful completion of course CTI 137, "Java Programming Using JDeveloper," meets these requirements.*

*Minimum software requirements: Microsoft Windows NT 4.0 or Windows 2000 or later. Oracle9i JDeveloper 9.0.3 or later. Oracle or equivalent relational database. Java-compatible browser.*

*Minimum hardware requirements: Pentium at 500 MHz, 256 Mb RAM; 500 Mb free hard disk space before installation. Classroom machines should be networked. Internet access.*

*Microsoft PowerPoint on instructor's workstation for presentation purposes.*

### Module 1: Design and Architecture of Web Applications – Part I

- Internet Fundamentals
- Web Application Architecture
- Multiple-Tier Design
- Functions of a Server

### Module 2: Creating Web Pages Using HTML

- Basic Tags
- Graphic Effects
- Lists and Tables
- Frames, Controls, and Stylesheets
- Applets

### Module 3: Client-Side Programming Using JavaScript

- Uses of Client-Side Scripting
- The Document Object Model
- JavaScript Language Elements

### Module 4: Server-Side Programming Using Java Server Pages

- Uses of Server-Side Scripting
- Communicating with the Client
- Server Objects
- Maintaining State
- JSP Lifecycle and Events

### Module 5: Relational Database Processing

- Connecting to Databases Using JDBC
- Viewing and Updating Tables
- Connection Pooling
- Transaction Processing

### Module 6: Servlets

- Uses of Servlets
- Relationship Between Servlets and JSPs
- Servlet API
- Communicating with the Client
- Session Tracking
- Servlet Lifecycle and Events

### Module 7: JavaBeans

- Uses of JavaBeans
- Relationship of JavaBeans to Servlets and JSPs
- Design and Architecture
- JavaBeans API
- Maintaining State
- Bean Lifecycle and Events
- Serialization
- Packaging

### Module 8: Design and Architecture of Web Applications – Part II

- Overview of J2EE
- Error and Exception Handling
- Threading
- Networking Considerations
- Model-View-Controller (MVC) Architecture
- Different Roles of Developers on a Team

**Enterprise Java  
Programming  
Using JDeveloper  
(CTI 174) - continued**

---

**Module 9: Enterprise JavaBeans**

- EJB Server and Containers
- Session Beans
- Entity Beans
- Maintaining State
- Bean Contexts
- Bean Persistence
- Bean Lifecycle and Events
- Packaging and Deployment

**Module 10: Testing Using JUnit**

- Purpose and Goals
- Writing Test Cases
- Executing Test Cases
- TestCase Lifecycle and Events
- Using Fixtures
- Designing Good Tests
- Using TestSuites
- Using TestRunners

**Module 11: Advanced Topics**

- Advanced Error Handling
- Multithreaded Applications
- Security

**Module 12: Summary and Review**