

# Enterprise Java Programming Using Oracle 10g 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 Oracle 10g JDeveloper (CTI 212)

*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 Macintosh OS X 10.3 or later. Oracle10g JDeveloper version 10.1.2 or later. Oracle or equivalent relational database. junit.jar will need to be downloaded from Oracle's website and installed on each machine as it is not part of the standard Oracle install. Java-compatible browser.*

*Minimum hardware requirements: Pentium at 500 MHz or PowerPC; 1 Gb RAM; 2 Gb 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 Oracle 10g  
JDeveloper  
(CTI 212) - 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