

Training: Capstone Courseware
108 Overview of Java EE Development

TRAINING GOALS:

Version 5.0.1

This course provides a coherent, high-level explanation of the **Java Platform, Enterprise Edition (Java EE)**: what sorts of software are created with Java EE; how software is developed for this platform; how it is deployed and put into production; how it can be administered. The course is designed specifically for non-programmers -- analysts, managers, technical writers, and anyone who desires a good conceptual understanding of Java EE while not needing to drill down into the details of particular APIs or runtime specifications. Developers may also find this course quite useful as a starting point for one or more of our courses in specific Java EE technology -- it gives a great sense of the big picture before one dives into the details of Servlets, JSP, JSF, EJB, or Java web services.

The course is presented seminar-style, with no hands-on exercises for students and no need for lab equipment. The instructor demonstrates several sample **Java EE applications**, including web applications, EJBs, JMS, and web services, and can go into source code and other details to suit the interests of the audience. But the focus is on architecture, and on boiling down a very complex system to its essential features: code portability, components and containers, metadata and declarative development. Students come to understand the roles that various Java EE technologies play in a multi-tier, enterprise application, and acquire the terminology and basic workings of each.

CONSPECT:

- Chapter 1. History and Overview
 - Structured Programming
 - Object-Oriented Programming
 - 4GLs and RAD
 - Java
 - Java EE and the Outside World
 - Versions Upon Versions
- Chapter 2. Concepts
 - The Virtual Machine and Runtime
 - How Does It Work?
 - Containers and Components
 - Three Containers

- Aspect-Oriented Programming
- Java EE as an AOP Platform
- Annotations
- Deployment Descriptors
- Remote Connectivity
- Scalability
- Availability
- Security
- Transactionality
- Chapter 3. Technology
 - JDBC
 - Servlets
 - JavaServer Pages
 - Java Naming and Director Interface
 - The Component Environment
 - Multi-Tier Applications
 - JavaServer Faces
 - Enterprise JavaBeans
 - Java Persistence API
 - Ajax
 - Java Message Service
 - APIs for Web Services
- Chapter 4. Tools, Standards, and Portability
 - Java IDEs
 - Web Servers and Containers
 - Application Servers
 - Standards and Portability
 - What Is and Isn't Standardized
 - Beyond Java EE
- Chapter 5. Development and Administration
 - Development Process
 - Assembling WARs and EJB JARs
 - Assembling EARs
 - Verifiers
 - External Resources
 - Administrative Tools

- Administrative Tasks
- Remote Administration and Domains

REQUIREMENTS:

- Some prior experience with business software is assumed, but there are no formal prerequisites for this course.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Capstone Courseware.

TRAINER:

Authorized Capstone Courseware Trainer.