Architect Enterprise Applications with Java EE

Eğitim Tipi: **Clasroom**

Süre: **5 Day**

Eğitim Hakkında

The Architect Enterprise Applications with Java EE course provides delegates with knowledge needed to develop robust architectures for enterprise Java applications using the Java Platform, Enterprise Edition (Java EE) technology. The Enterprise Java applications developed using the architecture as a guideline can accommodate rapid change and growth.

By taking this course, delegates gain an understanding of the technical context of the Java EE and relevant technologies, and strategies needed to create application blueprints that work well when implementing Java EE technologies. These strategies include effective decision-making through the use of non-functional qualities (such as scalability and flexibility), Java EE technology blueprints and design patterns.

- Define the Enterprise Architect's roles, responsibilities and deliverables
- Identify non-functional requirements (NFRs) and describe common problems and solutions
- Translate business requirements into an architecture
- How to weigh choices in architecting the client, web, business, integration and data tiers
- Apply various evaluation criteria to choosing architectural elements and patterns, tools, servers and frameworks

Önkoşullar

Required Prerequisites

Describe distributed computing and communication concepts
Describe, in outline form, all Java EE technologies, including Enterprise JavaBeans, servlets, JavaServer Pages, and JavaServer Faces
Perform analysis and design of object-oriented software systems
Use a notation, such as the UML, for modeling object-oriented systems
Object-Oriented Analysis and Design Using UML

Suggested Prerequisites
Java Design Patterns
Java EE 6: Develop Web Components with Servlets & JSPs
Java EE 6: Develop Business Components with JMS & EJBs

Kimler Katılmalı

- Developers responsible for the overall software architecture and design of Java EE technology-based enterprise software systems.
- Developers who require insight into the role of the enterprise architect and want to use Java EE technologies in n-tier enterprise systems.
- Existing architects who want to understand how to use Java EE technologies to improve quality of service in their enterprise systems.
- Developers or Architects interested in training that will help them prepare for the Oracle Certified Enterprise Architect exam.

Neler Öğreneceksiniz

At the end of this course you will be able to:

- Derive software systems using techniques outlined in the Java EE Blueprint and solutions defined in the Java EE Patterns
- Address quality-of-service requirements in a cost-effective manner using engineering trade-off techniques
- Describe the role of the architect and the products an architect delivers
- List and describe typical problems associated with large-scale enterprise systems
- Make good use of Java EE component technologies to solve typical problems in system architecture

Eğitim İçeriği

Introducing Enterprise Architecture

- What is Enterprise Architecture?
- An Architect's Roles and Responsibilities

Introducing Fundamental Architectural Concepts

- Distinguish between architecture and design
- Architectural Patterns
- Architectural Deliverable Artifacts
- What is an Enterprise Architecture Framework
- 4 1 View Model
- Architectural Modeling Using UML
- Architecture Workflow
- What is an Enterprise Architecture Framework

Developing a Security Architecture

- Analyzing the Impact of Security in Distributed Computing
- Examining Security in the Java EE Technology
- Understanding Web Services Security

Understanding Non-Functional Requirements

- Examining Non-Functional Requirements (NFRs)
- Common Practices for Improving Qualities
- Prioritizing Quality-of-Service (QoS) Requirements
- Inspecting QoS Requirements for Trade-offs

Defining Common Problems and Solutions: Risk Factors and System Flexibility

- Identifying Risk Factors
- Designing a Flexible Object Model

Defining Common Problems and Solutions: Network, Transaction and Capacity Planning

- Describing Network Communication Guidelines
- Justifying the Use of Transactions
- Planning System Capacity

Java EE 6 Overview

- Java EE 6 Goals
- Java EE Containers
- Classic Java EE 5 Architecture
- Impact of Java EE 6 on Architecture

Developing an Architecture for the Client Tier

- Client Tier Development Roles
- Information Architecture Client Concerns
- Selecting User Interface Devices and Technologies
- Discovering Reusability in the Client Tier
- Deployment Strategies for the User Interface
- Security Concerns in the Client Tier
- Testing

Developing an Architecture for the Business Tier

- Business Tier Technologies
- Architecting the Domain Model
- Development Best Practices

Developing an Architecture for the Integration and Resource Tiers

- Examining Enterprise Information System Integration
- Reviewing Java Integration Technologies
- Applying Integration Patterns
- Examining Service-Oriented Architecture (SOA)

Evaluating the Software Architecture

- Evaluating Software Architectures
- Evaluating Java EE Technologies
- Creating System Prototypes
- Selecting Servers and Frameworks