Architect Enterprise Applications with Java EE Ed 2

Duración

Días: 5 Días
Horas: 30 horas

Descripción

This Architect Enterprise Applications with Java EE training teaches you how to develop robust architectures for enterprise Java applications. Learn how to use Java Platform, Enterprise Edition (Java EE) technology.

A quién se dirige

- Architect
- Developer
- J2EE Developer
- Java EE Developers

Objetivos

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

Beneficios para usted

By enrolling in this course, you'll understand how Enterprise Java applications developed using the architecture as a guideline can accommodate rapid change and growth. Expert Oracle University instructors will help you explore the technical context of the Java EE and relevant technologies.

Strategies to Create Application Blueprints

You'll also learn the 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.

Qué aprenderá

- 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.
- 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.

Requisitos

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 Business Components with JMS & EJBs
- Java EE 6: Develop Web Components with Servlets & JSPs

Contenido

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

2. 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

3. Developing a Security Architecture
    - Analyzing the Impact of Security in Distributed Computing
    - Examining Security in the Java EE Technology
    - Understanding Web Services Security

4. 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

5. Defining Common Problems and Solutions: Risk Factors and System Flexibility
    - Identifying Risk Factors
    - Designing a Flexible Object Model

6. Defining Common Problems and Solutions: Network, Transaction and Capacity Planning
    - Describing Network Communication Guidelines
    - Justifying the Use of Transactions
    - Planning System Capacity

7. Java EE 7 Overview
    - Describe the new features in Java EE 7
    - Describe the impact of Java EE 7 features on J2EE, Java EE 5 and 6 architectures

8. 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

9. Developing an Architecture for the Web Tier
    - Responsibilities of the Web Tier
    - Seperation of Concerns
    - Comparing Web Tier Frameworks
    - Providing Security in the Web Tier
    - Scaling the Web Tier

10. Developing an Architecture for the Business Tier
    - Business Tier Technologies
    - Architecting the Domain Model
    - Development Best Practices

11. 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)

12. Evaluating the Software Architecture
    - Evaluating Software Architectures
    - Evaluating Java EE Technologies
    - Creating System Prototypes
    - Selecting Servers and Frameworks