

Price: R2,500.00 excl. VAT
Duration: 1 day
Code: JEEFW

JEE Frameworks Overview

Description

A framework is a software development environment that provides functionality which you can use and extend to make more complex applications within a specific domain. Frameworks enhance productivity and minimise time to market. This seminar is for companies and individuals who want to use a Java framework with JEE, and need to evaluate the many available options. The seminar will give you an overview of the most popular Java frameworks, and help you select the best choice for your development team. The frameworks evaluated include: JEE, Spring, Spring MVC, JSF, Google Web Toolkit, Grails, Struts, Wicket, Vaadin and the Play! framework.

Objectives

After you have completed the JEE Frameworks seminar, you will:

- Understand the role that a framework can play in your final architecture, and what it can and cannot do.
- Be aware of the most popular Java frameworks for both the web and JEE applications.
- Understand the differences, advantages and disadvantages of the various Java frameworks.

Intended Audience

You should attend this JEE Frameworks seminar if:

- You are a programmer or system architect and you want a high-level understanding of the best Java frameworks.
- You are a project or programme manager, and you want to evaluate the role of JEE frameworks for your team.
- You are a technical manager and you want to evaluate the role of JEE frameworks for your organisation.

Prerequisites

There are no prerequisites for the JEE Frameworks Overview seminar. A familiarity with the Java language will, however, be of great benefit.

Course Contents

Introduction to Frameworks

- Definition of a framework.
- Advantages and disadvantages of using a framework.
- Types of frameworks.
- Common framework features: inversion of control, dependency injection, aspect-oriented programming.
- Criteria for framework evaluation.

JEE

- Overview of JEE.
- JEE as a de-facto industry standard application server.
- Advantages and disadvantages.

Spring

- Overview of Spring.

- Spring as a lightweight alternative to JEE.
- Spring as an IoC, DI, AOP container.
- Spring templates to reduce boilerplate code.
- Advantages and disadvantages.

Spring MVC

- Spring MVC as an action-based MVC web framework.
- Architectural overview.
- Advantages and disadvantages.

JavaServer Faces (JSF)

- JSF as a component-based web framework.
- PrimeFaces, IceFaces, MyFaces and RichFaces as component libraries.
- Architectural overview.
- Advantages and disadvantages.

Google Web Toolkit (GWT)

- GWT as a toolkit to build high-performance client-side JavaScript functionality.
- Creating and maintaining complex JavaScript front-end applications in Java.
- Architectural overview.
- Advantages and disadvantages.

Grails

- Grails as a "convention over configuration" open source, lightweight, component-based web development framework.
- Architectural overview.
- Advantages and disadvantages.

Play!

- Play! as a stateless RESTful MVC web application framework.
- Architectural overview.
- Advantages and disadvantages.

Vaadin

- Vaadin as an event-driven web development framework programming with a Swing-type programming model.
- Server-side deployment as Java servlets.
- Client-side deployment using AJAX and Google Web Toolkit.
- Architectural overview.
- Advantages and disadvantages.

Struts

- Struts as an action-based pull-MVC web framework.
- Interceptors based on the chain of responsibility pattern to reduce coupling.
- Architectural overview.
- Advantages and disadvantages.

Wicket

- Wicket as an open source, component-oriented, server-side Java web application framework.

- Development using plain HTML-based templates and Java code with a Swing-type programming model.
- Architectural overview.
- Advantages and disadvantages.

Hibernate

- Hibernate as an object-relational mapping framework.
- Architectural overview.
- Advantages and disadvantages.

Conclusion

- Considerations for successful implementation.
- Preparation, planning and training for frameworks.

*** The lecturer reserves the right to modify the contents of the course to suit the needs of the delegates.*