

Java EE 6, develop enterprise applications



SII-112 5 Days (35 Hours)

Description

This training will allow you to be operational in the development of business applications in Java and to understand how an application server works. It highlights the latest trends (POJO objects, XML configuration, etc.), the main frameworks and new Java EE 6 features.

Who is this training for ?

For whom

Developers, architects and project managers.

Prerequisites

Aucune

Training objectives

- Master the Java EE application development environment
- Set up the data access layer with JPA
- Develop remote services based on EJB
- Develop the application user interface with JSF and Ajax
- Develop and expose web services in SOAP and REST

Training program

Introduction

- The building blocks of Java EE.
- The contributions of Java EE 6.
- Stateful architectures (DDD) versus Stateless.
- Panorama of the Java EE offer.

L'environnement de travail

- Development tools.
- The Eclipse environment.
- Maven dependencies.
- The "deployment assembly".
- Unit tests (with JUnit and JeeUnit).
- The domain file.
- xml.
- JNDI, the standardization proposed by Java EE 6.
- The transactional monitor.
- The Web server.
- Modular operation: OSGI.
- Practical work Install the IDE and the server.

L'accès aux données avec JPA

- The principles and operation of mapping.
- The handling of persisted instances.
- Lazy loading.
- The metamodel.
- The entityManager, Query and Criteria interfaces.
- Management of the entityManager by the container.
- Practical work Implementation of persistent entities in a Java project.
- Setting up the data access layer with JPA within the common thread application.

Les EJB Session

- Declaring a class as an EJB Session.
- Lifecycle management (Stateless.).
- The contributions of Java EE 6.
- Dependency injection.
- Injection outside CDI.
- Interceptions.
- Transactions.
- Security.
- Timers.
- Remoting.
- Practical work Update setting up services with EJB Sessions.

Les Messages Driven Beans (MDB)

- The asynchronous dialogue between applications.
- The JM API.
- The concepts.
- The JMS elements: connectionFactory, connection, session, destination, message, messageProducer, messageConsumer.
- Configuration in Glassfish.
- Advanced features.
- Practical work Setting up a client application notification system.

Le Web et Java Server Faces

- JSF 2.
- 0 and configuration by annotations.
- The concepts (MVP, Presenter, View).
- The facelets, taglibs, jsf-el.
- JSR303 validation.
- Implementation of Ajax.
- Practical work Implementation of JSF and d 'Ajax within a web application.

Le Web et Java Server Faces

- The possibilities offered.
- The JAX-WS and JAX-RS APIs.
- Using a Custom Serializer in both cases.
- Practical work Development of a Web facade exposing the services of the exercise developed.