SpiralTrain
developer courses

Java EE Web Development

Audience Course Java EE Web Development
The course Java EE Web Development is intended for developers who want to build Java Web applications with Java EE components like Servlets, JSP's custom tags, filter and event listeners.

Prerequisites Java EE Web Development
To participate in this course experience with Java programming and object orientation is required.

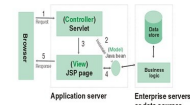### Realization Training Java EE Web Development
The theory is treated on the basis of presentation slides and is interspersed with exercises. Demos are used to clarify the theory. All topics asked at the Java Web Component Developer Exam are discussed. The course material is in English.
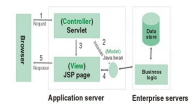
Official Certificate Java EE Web Development
Participants receive an official certificate Java EE Web Development after successful completion of the course.

Duration: 4 days   **Price: € 2999**

Open Schedule

Java EE Web Development

Content Course Java EE Web Development

The course Java EE Web Development covers how servlets and JSPs are constructed and used in Java EE Web Applications.

Servlets
First the main methods of servlets are on the agenda, like the ones used in servlet initialization, reading HTTP request data and writing HTTP response data.

Scopes
The different scopes of Web Applications such as session scope and application scope are explained. Next the basic syntax of JSP's scriptlets, expressions and declarations are covered and the different JSP page directives are treated.

MVC Pattern
A central element in the course is the MVC design pattern for Java Web Applications where servlets act as controller for program logic and JSP's as view for output data. In discussing this pattern, the RequestDispatcher interface is treated as well as the ways attributes can be stored and retrieved in different scopes.

Java Beans
Ample attention is paid to techniques to separate Java code from the JSP view. In particular the use of Java beans and custom tags for this purpose is discussed.

Filters
Also the role of deployment descriptors is part of the subject matter and security in Web applications, filters and the event framework are addressed.

Modules Course Java EE Web Development

Module 1 : Introduction	Module 2 : Servlets	Module 3 : Scopes and Sessions
Java EE Standard	Servlet Interface	Sharing Data with Scope Objects
Java EE Servers	Reading Initialization Parameters	ServletContext
What is a Servlet?	Concurrent Access	Application Scope
Possible Servlet Tasks	ServletContext Interface	Request Scope
What is a Java Server Page(JSP)?	Destroying Servlets	Page Scope
Problems with Servlets and JSP	HTTP Requests and Responses	Session Scope
Classic MVC Pattern	HttpServlets	Session Tracking Mechanisms
Model 2 Architecture	service, doGet and doPost	Sending and Reading Cookies
Structure of a Web Application	Reading Form Data	Session Tracking with Cookies
Registering a Web Application	HTTP Request Headers	URL Rewriting
Defining Custom URL's	Populating the Response	Hidden Form Fields
WAR Files	HTTP Status Codes	HttpSession methods
Handling Relative URL's	HTTP Response Headers	Session tracking API
Module 4 : JSP's	**Module 5 : JSP Directives**	**Module 6 : JSP Standard Actions**
The Need for JSP	What are JSP directives	jsp:include
Types of Scripting Elements	JSP page Directive	jsp:plugin, jsp:param and jsp:params
Benefits of JSP	import Attribute	What are Beans?
Translation and Request Time	contenttype Attribute	Basic use of Beans in JSP
Setting up your environment	session Attribute	Accessing Bean Properties
Expressions	buffer and autoflush Attributes	Setting Bean Properties Explicitly
Predefined Variables	extends Attribute	Association with Input Parameters
Scriptlets	errorPage and isErrorPage	Sharing Beans
Declarations	include Directive	Values of Scope Attribute
jspInit and jspDestroy	taglib Directive	Conditional Bean Operations
Module 7 : MVC Architecture	**Module 8 : Expression Language**	**Module 9 : Custom Tags**
Why combine Servlets and JSP?	Advantages Expression Language	What are Tag Libraries?
MVC Approach	Activating Expression Language	Custom Tag Features
Implementing MVC	Invoking the EL	Simple Tag Handler
Dispatching requests	Common EL Problem	Simple Tag Library Descriptor
Storing Data in Servlet Request	Referencing Scoped Variables	Accessing Custom Tags from JSP
Storing data in Session	Accessing Bean Properties	Attributes and Body Content
Storing data in ServletContext	Nested Beans	JSP-based Tags
Forwarding Requests	Using EL Operators	Tags manipulating Body
Including Requests	Conditional Evaluation	Complex Objects for Attributes
Module 10 : Security	**Module 11 : Filters**	**Module 12: Event Listeners**
Major Security Concerns	What are Filters?	Life-Cycle Events Framework
Declarative Security	Filter Interface	Available Listeners
Programmatic Security	Creating Filters	Implementation Strategy
Form-based Authentication	doFilter method	Reason for listeners
Deployment Descriptor settings	Servlet Filter Related Classes	ServletContext Listeners
BASIC Authentication	Filters in a Chain	ServletContextAttributeListeners
Combining Security Mechanisms	Filter Mapping	HttpSession Listeners
Pure Programmatic Security	Accessing the Servlet Context	Session Creation Events
Programmatic Security with SSL	Filter Initialization Parameters	SessionAttribute Listeners