SpiralTrain
d e v e l o p e r   c o u r s e s

Web Development with GWT

Duration: 3 days   **Price: € 1999**

Open Schedule

Audience Course Web Development with GWT
The course Web Development with GWT is intended for Java developers who want to create dynamic Web Applications with the **Google Web Toolkit (GWT)** and who want to explore the potential of this framework.

Prerequisites Course Web Development with GWT
Knowledge of and experience with **Java** development and the development of Web applications is required to participate in this course.

Realization Training Web Development with Google Web Toolkit
The theory is discussed on the basis of presentations. Demos are used to clarify the theory. There is ample opportunity to do exercises. The course material is in English. The course times are from 9.30 up and to 16.30.

Certification Course Web Development with GWT
Participants receive an official certificate Web Development with GWT after successful completion of the course.

Java Web Development
with
Google Web Toolkit

Content Course Web Development with GWT

In the course Web Development with GWT, participants get an overview of the operation and possibilities of the Google Web Toolkit (GWT). The Google Web Toolkit is a framework that allows web developers to write complex JavaScript front-end applications in Java. The GWT compiler takes care of the translation of the Java code to JavaScript.

GWT Intro
The course Web Development with GWT starts with an explanation of the basic concepts. Attention is paid to how the GWT emphasizes standard procedures for typical web development tasks such as asynchronous remote procedure calls, history management, bookmarking, abstraction of the User Interface, internationalization and cross-browser portability.

GWT Architecture
Next the course covers the Google Web Toolkit architecture, the distinction between Development mode and Production mode, the JRE emulation library and deployment of GWT applications.

Events and Widgets
Event handling in GWT is also extensively discussed and the GWT GUI class library with various GWT widgets, the event listener model and the use of CSS are treated.

Layout and Panels
Also on the program of the course is the layout of the User Interface by means of the various GWT panels or declaratively in XML.

GWT RPC
And part of the subject matter is how single page functionality is implemented in Google Web Toolkit by means of Remote Procedure Calls (RPCs) to server objects. GWT serialization is also covered.

JSNI and Internationalization
And finally the Java Script Native Interface (JSNI), the communication between Java and JavaScript using JSON and internationalization of GWT applications is treated.

Modules Course Web Development with GWT

Module 1 : GWT Intro	Module 2 : GWT Architecture	Module 3 : GWT Event Handling
What is GWT?	GWT Application Components	Basic Widgets
Single Page Application Model	Main GWT Project Configuration	Common Events
Synchronous versus Asynchronous	Entry Point Class	Pushbuttons
GWT Solution	Module Configuration File	Checkboxes and Radiobuttons
Installing GWT	HTML Host Page	Listboxes
Eclipse Plugin	Project Configuration with RPC	Textfields
Browser Plugin	Compiler Output	Implementing Event Handling
Development Mode	GWT Production Mode	Event Handler Interface
Production Mode	Running on External Server	Event Handler Classes
Deployed mode	Java to Javascript compiler	Named Inner Classes
Creating Projects	JRE Emulation library	Anonymous Inner Classes
Deploying Applications	Deferred Binding	Lambda Functions
Module 4 : Layout with Panels	**Module 5 : Extended GUI Widgets**	**Module 6 : GWT RPC**
GWT UI Class Library	Popup Messages	What is GWT RPC?
GWT Widgets and Panels	DialogBox	Overall RPC Idea
Root Panel	PopupPanel	RPC Data Types
Panels for Layout	Native Dialog Boxes	GWT Serialization
HorizontalPanel and VerticalPanel	DatePicker Widget	Communication with Server
FlowPanel and Grid	Date Input Boxes	GWT RPC Mechanism
FlexTable	MenuBar Widget	GWT Plumbing Diagram
Composite Panels	Fancy Text Boxes	Service Interface
TabLayoutPanel	Autocompleter Text Boxes	Callback Version Service Interface
StackLayoutPanel	Optional Text Box	Service Servlet
SplitLayoutPanel	Tree Widget	Service Implementation
DockLayoutPanel	TabBar Widget	Create Service Proxy
DeckLayoutPanel	Custom Widgets	Client Side Callbacks
Module 7 : Declarative Layout	**Module 8 : JavaScript Native Interface**	**Module 9 : GWT Internationalization**
Java Based Layout Problems	JavaScript Native Interface (JSNI)	Localization of Applications
UiBinder Approach	Where is JSNI used?	GWT Property Files
HTML-based UiBinder GUIs	Format of Methods	Deferred Binding
Widget-based UiBinder GUIs	$wnd and $doc variables	Seperate JS files
UI Event Handling with UiBinder	Basic JSNI Syntax	String Internationalization
UiBinder XML syntax	JSNI Arguments and Return Types	Local Model
@UiConstructor	Passing Values	GWT I18N library
@UiFactory	JSNI Fields and Methods	DateTime Formatting
@UiField	JavaScript Object Notation (JSON)	Number Formatting
CSS in UiBinder	JavaScriptObject	Setting History Tokens
Images in UiBinder	Overlay Types	Responding to History Tokens