

Google Web Toolkit *Curriculum*

{45Days}

Office Location

DreamTech Labs
Jalandhar

Office Hours

9:30-18:00



Course Overview

This course is designed for experienced Web application developers and professionals:

- Architects
- Designers
- Consultants
- Developers
- Web 2.0 Developers

PREREQUISITES

Participants must be proficient in Java and HTML. Exposure to JavaScript is recommended.

DESCRIPTION

The Google Web Toolkit (GWT) training course provides an in-depth coverage of the Google Web Toolkit.

If you are used to some of the newer Web 2.0 sites like Google maps, gmail, etc., you must have noticed the fast response and the dynamic page refreshing facilitated by AJAX techniques. Google has been in the forefront in promoting these techniques to common applications.

There are already many toolkits in the Ajax world. Dojo, JQuery, YUI, etc. are examples of some of these based on JavaScript libraries. GWT was one of the early toolkits that took a radically different approach. By using Java as the development language, Google was able to leverage the wealth of mature tools and developer base already available.

After looking at how Ajax works, this course will cover the techniques, components, and tools used for building GWT applications. About 70% of the time will be spent on hands-on labs.

OBJECTIVES

The Google Web Toolkit (GWT) training course is targeted to give detailed guidance to building Web 2.0 applications using GWT. On completion,

attendees would be able to:

- * Work with Ajax
- * Basics of GWT framework
- * Organize GWT Projects
- * Use the GWT API
- * Use client side widgets
- * Communicate with the server
- * Deploy GWT code on the server
- * Debug and Test GWT applications
- * Work with Internationalization and Accessibility

Course Materials

Introduction to AJAX

- * Life Before Ajax
- * What, Why and How of AJAX
- * Overview of XMLHttpRequest, DOM
- * Basic Ajax Techniques
- * JavaScript, CSS, JSON

The GWT Framework

- * Installing GWT
- * Your First GWT Application
- * Java - JavaScript Compiler
- * Integration with IDEs
- * Running and Debugging
- * Hosted Mode and Web Mode

Organizing GWT Projects

- * Directory and Package Layout
- * Libraries, Modules and XML Configuration
- * Entry Point Classes
- * Inheriting Modules
- * Including External Resources

GWT and Java

- * Anatomy of the GWT Compiler
- * Java Language and Library
- * Delayed Logic Classes
- * JSON and Overlay Types

GWT User Interfaces

- * HTML and Entry Point
- * Standard GWT Widgets
- * GWT Panels
- * Creating new Panels
- * Layouts

Events and Handlers

- * Standard Browser Events
- * Handling Other Events Types
- * Drag and Drop

Advanced UI Topics

- * Creating Custom Widgets
- * Composite Widgets
- * Creating Composite Widgets
- * Internationalizing Strings
- * Locales and Property Files
- * Accessibility Support
- * Making Widgets Accessible
- * History Tokens and Bookmarks
- * The Back Button Override

Server Side Considerations

- * Making RPC calls
- * Creating Services
- * Synchronous and Asynchronous Interfaces
- * Handling and Throwing Exceptions
- * Debugging and Testing Services
- * Deploying on Application Servers, Google App Engine

