

DEVELOPING INTERACTIVE WEB APPLICATIONS WITH THE GOOGLE WEB TOOLKIT*

TUTORIAL PRESENTATION

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ABSTRACT

Web sites such as Gmail, Facebook and other Web 2.0 applications have changed the way that we think about web functionality. These sites behave more like desktop applications than traditional document-centric sites. Developing these interactive web applications using technologies such as AJAX is tedious, error prone and difficult to optimize. Development environments and tools for such applications lag behind the more mature tools available for languages such as Java.

The Google Web Toolkit is an emerging technology that facilitates the integration of the powerful tools available for the Java platform into the interactive web world. The toolkit consists of tools that compile Java code into a combination of HTML and Javascript code; since the code is being written in Java, all of the tools available for Java development can be leveraged, such as the Eclipse IDE and testing tools such as JUnit. Utilizing a compiler to generate Javascript provides an opportunity for optimization that would be difficult without the use of the toolkit.

In this workshop, participants will learn about the Google Web Toolkit, including the philosophy behind the toolkit, the GUI framework that it provides, and the methods available for interaction with remote services. Participants will be walked through the development of a simple “Stock Ticker” application that interacts with the Yahoo stock data service. Several other sample applications will be presented, including sample assignments given to students in a class focusing on applications of the GWT.

An outline of the workshop is:

- Introduction to the Google Web Toolkit (30 minutes)
- Presentation and discussion of several applications built using the toolkit (30 minutes)
- Development of the Stock Ticker application (1 hour)
- Overview of the GUI Framework and server integration techniques (30 minutes)
- Overview of a course on the GWT (15 minutes)
- Questions/wrap up

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Participants will should bring a USB flash drive to save their work. Participants will receive a CD containing most of the materials presented in the workshop.