REAL-WORLD APP DEVELOPMENT WITH GOOGLE WEB TOOLKIT

Lon Riesberg
CSCI 7818 – Web Services
November 19, 2008
Outline

- Getting Started
  - Tools, Tutorials, Examples

- Communicating with the Server
  - RPC, Creating Services, Exception Handling

- Tips / Tricks

- Key Resources
GWT - Getting Started

- Tools:
  - http://code.google.com/webtoolkit/
  - http://www.eclipse.org/

- Tutorials

- Widgets / Examples
  - http://www.gwt-ext.com
  - http://www.gwtpowered.org
GWT – Server Communication

- **RPC**
  - Allows a GWT client to make a call to server-side code.
  - Super easy development. All the proxy classes that handle RPC are generated automatically. All you need to do is define your service’s interface and its server-side implementations.
  - GWT client serialization allows client JavaScript to interact with Java classes on the server.
GWT - RPC Plumbing

Translatable Java code
(runs as JavaScript on client)

Standard Java code
(runs as bytecode on server)
GWT – Server Communication

- **Creating Services – Three steps:**
  - Define the service’s synchronous and asynchronous interfaces.
  - Implement the service
  - Call the service

- **Exception Handling**
GWT – Tips and Tricks

- Deferred Rendering – most browsers don’t update the HTML canvas while executing JavaScript... So break up long JavaScript ops.

Source: http://techzone.enterra-inc.com/?p=25
GWT – Tips and Tricks

- Avoid long load times when manipulating DOM by only updating what’s visible.
- Anticipate browser limits on number of HTTP connections (usually it’s 2).
- Compress your JavaScript
- Bundle images.
- Fast Container Pattern
GWT – Key Resources

- **Project Home** - [http://code.google.com/webtoolkit/](http://code.google.com/webtoolkit/)
- **GWT Powered** - [http://www.gwtpowered.org/#Recent](http://www.gwtpowered.org/#Recent)
- **GWT Developer Forum** - [http://groups.google.com/group/Google-Web-Toolkit](http://groups.google.com/group/Google-Web-Toolkit)