A Quick Introduction to Struts

Presented By
DevelopIntelligence LLC
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- What is Struts?
- Motivation for Struts
- Components of Struts
- Adopting Struts
- Working with Struts
**What is Struts?**

- Open-source web application development framework
  - Managed by Apache Software Foundation
  - Initial release 2001; Current release is 1.3.x
  - Written in Java
- Created as Model 2 [*Model-View-Controller (MVC)*] framework for building Java based web-applications
  - Provides ability to have web application broken into three parts:
    - Model - business logic and data manipulation
    - Controller - request processing and data validation
    - View - response generation
  - Composition of components and facilities leveraging Java Servlet API and XML
Motivation for Struts

- Model 2 centric web applications
  - Separation of concerns
  - Reusability

- Reusable framework for building Model 2 centric applications
  - Provides reusable controller facility, allowing developers to focus on:
    - Presentation logic - the view
    - Business logic - the model
  - Provides dynamic, externalized flow control
Components of Struts

- **Base Framework** - simplifies MVC implementation
  - Provides core MVC functionality
    - Controller - ActionServlet
    - Controller Delegates - Action and ActionForm
  - Contains configuration files
    - Main MVC configuration file - struts-config.xml
    - Can have multiples per solution

- **Tag Libraries** - simplify presentation logic
  - Struts Tag Libraries includes tags for things like:
    - HTML form generation
    - JavaBean access within view
    - Logical and flow control
  - Partially superseded by Java Server Pages Standard Tag Libraries (JSTL)

- **Plugins** - extensions to Struts
  - Tiles - templating framework
  - Validator - validation framework
Adopting Struts

● Required Infrastructure
  ○ Java Virtual Machine, typically 1.4 or higher
  ○ Java Enterprise Edition web container typically supporting Servlet 2.4 or higher

● Required Skills
  ○ Java language knowledge, including JavaBeans, Property Files, and ResourceBundles
  ○ Web development knowledge (HTTP request / response cycle, HTML, etc)
  ○ Java web development knowledge (Servlets, JSPs, Filters, etc)
Working with Struts

- **Locating Struts**
  - Struts Project page - [http://struts.apache.org](http://struts.apache.org)
  - Struts Download page - [http://struts.apache.org/download.cgi#struts135](http://struts.apache.org/download.cgi#struts135)

- **Developing Struts**
  - Eclipse Struts Plugins like EasyStruts and MyEclipse
  - Netbeans Struts Plugins like StrutsConsole

- **Learning Struts**
  - Apache Learning resources - [http://struts.apache.org/1.3.5/learning.html](http://struts.apache.org/1.3.5/learning.html)
About DevelopIntelligence

- Founded in 2003
- Provide outsourced services to learning organizations in area of software development
- Represents over 35 years of combined experience enabling software development community through educational and performance services
- Represents over 50 years of combined software development experience
- Delivered training to over 25,000 developers worldwide
Areas of Expertise

- **Instruction**
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  - J2EE
  - WebServices / SOA
  - Web Application Development
  - Database Development
  - Open Source Frameworks
  - Application Servers

- **Courseware**
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  - Java Web App Development
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