OPEN SOURCE WEB SERVICE
WITH PROJECT GLASSFISH AND NETBEANS IDE

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INTRODUCTION

Current technological development has enabled consumers to own powerful yet affordable computing and communication devices such as laptops, Java-enabled cellphones, and Personal Digital Assistants (PDAs) which can tap into the power of the Internet. The challenge that arises with the proliferation of such devices is that all those devices are created by various vendors and have various features which may be incompatible with one another. Consumers demand services which can be accessed through the Internet regardless of which devices they are using, and they do not want to worry about compatibility problems. Web services enable the delivery of services over the Internet to those various devices in a standard and device-independent way. Web service technology was designed to facilitate communication and interaction between computing devices over existing Web infrastructure, and various software vendors have embraced this technology as a solution to the problem of device interoperability. One such vendor is Sun Microsystems who has sponsored an Open Source project called GlassFish application server and an Open Source tool called NetBeans Integrated Development Environment (IDE). GlassFish server and NetBeans IDE enable developers to create web services and web service clients easily and quickly which can be accessed through various devices from desktop PCs, laptops, as well as mobile devices such as cellphones and PDAs. Both projects are supported by the Open Source community as an alternative solution to proprietary web service technology yet still maintain compatibility with those proprietary solutions.

OVERVIEW OF PRESENTATION

1. Introduction to Web Service Technology
   - Web Service Definition and Concepts
   - Web Service Protocols: UDDI, WSDL, SOAP
   - Web Service Analyzer Tool
   - Examples of Web Services on the Internet
2. Introduction to Java Web Service
   - Project GlassFish and Metro Web Service Stack
   - Web Services Interoperability Technologies (WSIT)
   - Java Application Programming Interface for XML Web Services (JAX-WS)
3. Introduction to NetBeans Integrated Development Environment (IDE) and GlassFish Application Server
   - NetBeans IDE Features and Usage
   - GlassFish Java 2 Enterprise Edition (J2EE) Application Server Features and Usage
4. Java Web Service Development Using NetBeans IDE and GlassFish Application Server
   - Developing Web Services with NetBeans IDE Wizards
   - Deploying Web Services to GlassFish Application Server
   - Accessing and Testing Web Services on GlassFish
5. Java Web Service Client Development Using NetBeans IDE
   - Developing Web Service Clients for Desktop PCs
   - Developing Web Service Clients for Java-Enabled Mobile Devices
   - Developing Web Service Clients for Web Applications