

Application Servers

CSE 487/587
Feb 1, 2005

References:

<http://publib.boulder.ibm.com/infocenter/ws40help/index.jsp?topic=/com.ibm.websphere.v4.doc/welcome.html>

Enterprise Applications

- An enterprise application (or J2EE application) is an application that conforms to the J2EE specification. An application can consist of the following:
 - Zero or more EJB modules
 - Zero or more Web modules
 - Zero or more application client modules
 - Optionally, additional JAR files containing dependent classes or other components required by the application
 - Any combination of the above, as long as it contains at least one module

Application Servers

- ❑ Application servers extend a Web server's capabilities to handle Web application requests. The application server makes it possible for a server to generate a dynamic, customized response to a client request.
- ❑ For example, suppose:
 - A user at a Web browser on the public Internet visits a company Web site. The user requests to use an application that provides access to data in a database.
 - The user request flows to the Web server.
 - The Web server determines that the request involves an application containing resources not handled directly by the Web server (such as servlets). It forwards the request to the Application Server.

Application Servers

- ❑ The Application Server forwards the request to the appropriate process that can serve the requested document.
- ❑ The user request is then processed by the application servlet. For example:
 - An Enterprise Bean that performs database access as per the user request is processed.
 - A dynamic web page containing results of the user query is generated.
- ❑ The application server collaborates with the Web server to return the results to the user at the Web browser.

Tomcat

- ❑ Tomcat is an open-source Application Server developed under the Apache license.
- ❑ Tomcat supports Java Servlets and Java Server Pages in its most basic form.
- ❑ Further functionalities can be gained by adding on more modules (EJB, etc.)
- ❑ Each Tomcat server can host multiple Web Applications

Tomcat: Demo

- ❑ Starting and stopping the server
- ❑ Accessing the server and applications
- ❑ Server Log
- ❑ Simple Web Application: HelloJSP
- ❑ Deploying & undeploying Web Application
- ❑ Deployment Mechanism