**Asynchronous JavaScript and XML (AJAX)**

Synchronous Request

* Recommended for few small requests. JavaScript will not continue to execute, until the server response is ready. If the server is busy or slow, the application will hang or stop.

Asynchronous Request

* JavaScript does not have to wait for the server response. It can execute other scripts while waiting for server response, and deal with the response when the response is ready.

**Document Object Model**

Document Object Collections

* anchors[]
* forms[]
* images[]
* links[]

Document Object Properties

* cookie
* documentMode
* domain
* lastModified
* readyState
* referrer
* title
* URL

Document Object Methods

* close()
* getElementById()
* getElementsByName()
* getElementsByTagName()
* open()
* write()
* writeln()

Java EE

* Java EE is an open, standards-based development and deployment platform for creating distributed, transactional, reliable, secure, multi-tiered, web-based, server-centric, component-based enterprise applications
* Java EE Application Model

Java programming language, Java Virtual Machine (JVM)

Java EE Components

Java EE Clients

Application Clients, Applets (embedded in web clients)

Web Components

Servlets, JavaServer Pages (JSP), JavaServer Faces (JSF)

Enterprise JavaBeans (EJBM)

Java EE Containers

Client containers, web container, EJB container

Java EE Server

Java EE Web Application

* Collection of resources installed under a specific subset of the URL namespace of a web application server compliant with the Java EE Specification (e.g. Apache‟s Tomcat, Apache‟s Geronimo, Sun Microsystems‟ Glassfish, IBM‟s WebSphere, etc.)
* Resources

Static resources: web pages, images, stylesheets, etc. *(serves as is)*

Dynamic resources: servlets, JSPs

Miscellaneous resources: business object classes (e.g. Java Beans, EJB), support libraries, etc.

* XML-formatted descriptor and configuration files

web.xml, application.xml, context.xml, etc.

* Organized into a standard hierarchical structure and typically packaged and deployed as WAR or EAR files

Java EE APIs

* Enterprise JavaBeans Technology
* Java Servlet Technology
* Java Server Pages
* Java Server Pages Standard Tag Library
* Java Server Faces
* Java Msg Service API
* Java Transaction API
* JavaMail API
* JavaBeans Activation Framework
* Java API for XML Processing