**IBM WebSphere Application Server Interview Questions**  
  
**1. What is the difference between Web Server and Application Server ?**   
  
Webserver:  
  
A Web server handles the HTTP protocol. When the Web server receives an HTTP request, it responds with an HTTP response, such as sending back an HTML page. To process a request, a Web server may respond with a static HTML page or image, send a redirect, or delegate the dynamic response generation to some other program such as CGI scripts, JSPs (JavaServer Pages), servlets, ASPs (Active Server Pages), server-side JavaScripts, or some other server-side technology. Whatever their purpose, such server-side programs generate a response, most often in HTML, for viewing in a Web browser.  
  
Application Server:  
  
As for the application server, according to our definition, an application server exposes business logic to client applications through various protocols, possibly including HTTP. While a Web server mainly deals with sending HTML for display in a Web browser, an application server provides access to business logic for use by client application programs. The application program can use this logic just as it would call a method on an object  
  
**2. What is JDBC ?**  
  
JDBC technology is an API (included in both J2SE and J2EE releases) that provides cross-DBMS connectivity to a wide range of SQL databases and access to other tabular data sources, such as spreadsheets or flat files. With a JDBC technology-enabled driver, you can connect all corporate data even in a heterogeneous environment  
  
**3. What is EJB ?**  
  
Enterprise JavaBeans (EJB) technology is the server-side component architecture for the Java 2 Platform, Enterprise Edition (J2EE) platform. EJB technology enables rapid and simplified development of distributed, transactional, secure and portable applications based on Java technology.   
  
**4. What are the different application servers and Web Servers supporting J2EE technology's ?**  
  
JBoss Is an Application Server that supports J2EE  
  
IBM Websphere and BEA WebLogic servers are a combination of Application Server, Web Server & container  
  
Jakarta Tomcat is a Servlet container and a Web server.  
  
Apache Sever is a Web server  
  
**5.** **What is the WebSphere Application Server Console and what is it's role? What is the default URL and port for accessing it?**  
  
The administrative console is a browser-based interface that allows you to configure application server settings, deploy and manage applications, and perform additional tasks that are not included in the HTTP Server Administration interface. It used to be a Java application, however to be firewall safe it was made into a web-based application.  
  
It runs on the default install port 9060 e.g [http:\\hostname:9060\ibm\console](http://www.webspheretools.com/sites/webspheretools.nsf/%5C%5Chostname:9060%5Cibm%5Cconsole), however this can be changed by editing virtual\_hosts names. also when during installation ie GUI or response-file install you can set the ports that will be used.  
  
**6. What Development Environment(s) are available to develop applications for WebSphere?**  
  
IBM provides several industrial strength development environments based on Eclipse development framework the current IDE is Rational Developer for Websphere. Applications can also be developed with the Websphere Application Server Toolkit and third party tools like Jbuilder, and Eclipse/ANT etc.  
  
**7. In WebSphere how would you provide the ability for an Web application (JSP) to be able to provide authentication for both a local user and LDAP.**  
  
Using the Administration Console:

* Turn on Administrative security.
* Federate a local repository and an LDAP repository together.
* Restart server.
* Ensure Web application has a web.xml file to be able assign LDAP groups to roles.

**8. What version of Websphere software is required to install WebSphere clustering? How would you configure Websphere for clustering: list basic steps?**   
  
WebSphere Application Server Network Deployment is the software required to install a WebSphere cluster.

* Install base with Deployment Manager
* Create profiles for Deployment Manager and each node in the cell using with the Profile Management Tool ensuring the nodes are federated.
* Use the Deployment Manager's Administration Console to create the cluster and set cluster settings as appropriate.
* Create Windows Services or Start up scripts for Deployment Manager, Node manager and Severs to ensure restart when OS is rebooted.

**9. How would you ensure that a Websphere Application server or Websphere Application Server Node is started when the OS being windows 2000/2003 is re-booted?**  
  
Use the command WASService to register the Websphere Application Server or Websphere Application node as a Windows service.  
  
**10. What language is the default scripting language for Websphere and which language is the preferred scripting language? What Websphere tool can be used to run scripts and where is it located?**  
  
JACL is the default scripting language for WAS, Both JACL and Jython can be used.  
  
Jython is the preferred scripting language as JACL is now deprecated.  
  
WSAdmin tool located in the <installroot>\bin directory  
  
**11. What type of files are required to deploy an application into Websphere. How can they be installed?**  
  
WAR or EAR files.  
  
Can be installed using Administration Console or scripts.  
  
**12. How would use ensure WebSphere server logs are created on a different drive than the installation root?**  
  
Change the WebSphere server's server variables using the Administrative Console or use scripts.

**Objectives**   
After completing this course, the student will be able to:

* Install WebSphere Application Server using both manual and automated methods
* Secure the WebSphere application server's administrative console with different levels of access for administration
* Understand federated user and group repositories
* Understand J2EE Application packaging
* Understand class loading
* Install applications manually and understand how ti use ws\_ant and wsadmin with Jython for automatic deployment
* Save many hours of manual administrative efforts by automating the configuration of WebSphere
* Learn how to read, configure, and search your server logs
* Change application server configurations, stop and restart application servers, and create additional application servers from a single administrative console for WebSphere Application Server using the Administrative Agent for WebSphere Base
* Diagnose the problems using command-line tools when your WebSphere or applications are not running as they should
* Understand JMS and MQ messaging along with how to configure message-aware applications
* Configure database-aware applications and configure JDBC providers and connection pooling
* Install IBM HTTP Server and WebSphere Plugin for Workload management and how to manage Web Servers from administrative console
* Analyse, Monitor and tune your WebSphere environment
* Keep your products up to date by using WebSphere product maintenance features

**Course Content**  
  
**Day 1 - Focus on WebSphere Fundamentals (Websphere base)**

* Understand Java Enterprise (Java EE) Application architectures
* WebSphere Application Server architecture
* How to configure PuTTY and Xming for free open source X Windows installs
* Installing and Configuring WebSphere Application Server
* Installing Enterprise Applications manually and via Ant & Jython scripts
* Application tracing and troubleshooting
* Data Source configuration and management
* Security management including Open Source LDAP configuration
* Java Messaging Service (JMS) management
* Performance monitoring and tuning with Tivoli Performance Analyzer