27 Lecture - CS506

Important Subjective

Certainly, here are 10 short-answer questions related to creating a simple web application in Tomcat along with their answers:

Question 1: What is Tomcat, and what is its role in web development?

Answer: Tomcat is a web server and servlet container used to deploy and manage web applications. It hosts web content and executes Java servlets to serve dynamic content.

Question 2: Explain the purpose of the `webapps` directory in Tomcat.

Answer: The `webapps` directory is where web application files are placed. Each subdirectory within `webapps` represents a separate web application that Tomcat can deploy and run.

Question 3: How is the `web.xml` file used in a web application?

Answer: The `web.xml` file, also known as the deployment descriptor, is used to configure the web application. It defines servlet mappings, initialization parameters, and other settings necessary for the application's functioning.

Question 4: What does the `WEB-INF` directory contain, and why is it important?

Answer: The `WEB-INF` directory houses web application resources that are not directly accessible by clients. It contains configuration files, classes, and libraries critical for the application's operation.

Question 5: How can you access the Tomcat Manager application, and what is its purpose?

Answer: The Tomcat Manager application is accessed via the URL path `/manager`. It provides a web-based interface to manage deployed web applications, monitor server status, and perform administrative tasks.

Question 6: Explain the role of the `index.html` file in a web application.

Answer: The `index.html` file is the default landing page of a web application. It's displayed when users access the root URL of the application. It's typically used to provide a user-friendly introduction or navigation to the application.

Question 7: What is a servlet, and how does it differ from a JSP?

Answer: A servlet is a Java class that handles dynamic content generation and processing of client requests. A JavaServer Page (JSP) combines Java code with HTML to generate dynamic content, providing a more convenient way to create web pages.

Question 8: How do you configure a servlet in the `web.xml` file?

Answer: To configure a servlet, you define its `<servlet>` and `<servlet-mapping>` elements in the `web.xml` file. The `<servlet>` element specifies the servlet's class name, and the `<servlet-mapping>` element associates URLs with the servlet.

Question 9: What is the purpose of the default port number 8080 in Tomcat?

Answer: Port 8080 is the default port on which Tomcat listens for incoming HTTP requests. When you access a web application deployed in Tomcat, you typically use a URL like `http://localhost:8080/myapp`.

Question 10: How can you deploy a web application in Tomcat?

Answer: To deploy a web application in Tomcat, you place its files in the `webapps` directory. Tomcat automatically detects and deploys the application. You can then access it using the appropriate URL path based on the application's name.