

29 Lecture - CS506

Important Subjective

Certainly, here are 10 short-answer questions related to advanced topics in servlets along with their answers:

Question 1: What is session tracking in servlets?

Answer: Session tracking involves maintaining user-specific data across multiple requests and sessions. It's crucial for preserving state in stateless HTTP protocol.

Question 2: How is session management achieved in servlets?

Answer: Session management is achieved through the `HttpSession`` interface. It allows storing and retrieving session-related data between client requests.

Question 3: What is the purpose of a servlet filter?

Answer: A servlet filter is used to preprocess and postprocess requests and responses globally in a web application. It's commonly used for tasks like authentication, logging, or modifying request/response.

Question 4: How do servlet filters work?

Answer: Filters intercept requests and responses before they reach the servlet or after they leave it. They can modify requests, responses, or perform operations based on certain conditions.

Question 5: What are servlet listeners?

Answer: Servlet listeners are interfaces that allow a servlet to receive notifications about events in the web application, such as context initialization, session creation, and attribute changes.

****Question 6:**** How do listeners differ from filters in servlets?

****Answer:**** Listeners respond to application-wide events, like initialization or session changes. Filters process requests and responses globally. Listeners are event-driven, while filters are request/response-centric.

****Question 7:**** What is JDBC, and how is it used in servlets?

****Answer:**** JDBC (Java Database Connectivity) is an API used to interact with databases. Servlets use JDBC to connect to databases, execute SQL queries, and perform data manipulation.

****Question 8:**** How does a `ServletContextListener` differ from a `ServletRequestListener`?

****Answer:**** `ServletContextListener` responds to application-level events like context initialization, while `ServletRequestListener` responds to request-specific events.

****Question 9:**** How can you ensure efficient resource management in servlets?

****Answer:**** Efficient resource management involves closing database connections, releasing memory, and cleaning up resources in the `destroy()` method of servlets or listeners.

****Question 10:**** What is the purpose of using a global exception handler in servlets?

****Answer:**** A global exception handler, set in the `web.xml` file, captures unhandled exceptions across the application. It allows developers to centralize exception handling and provide consistent error responses.