

# 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.