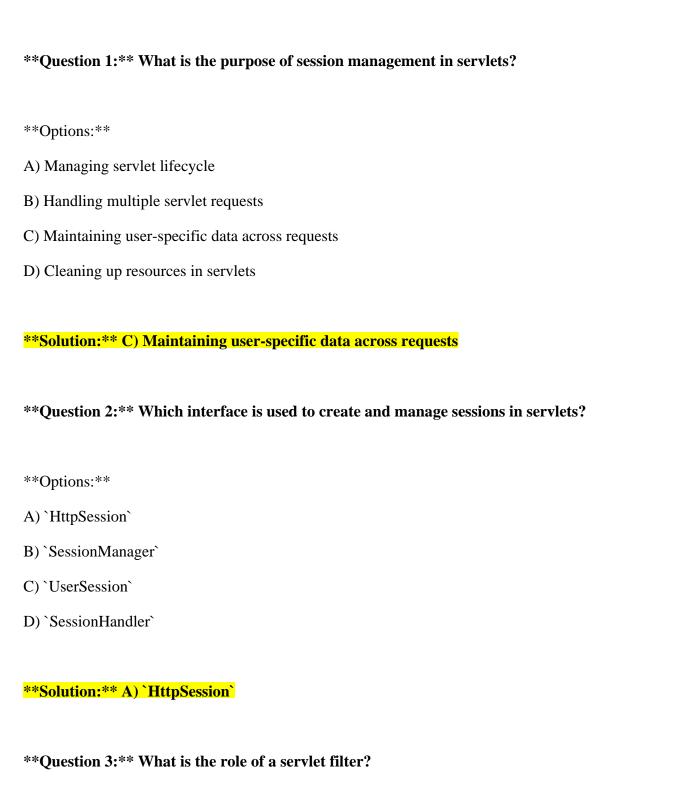# 29 Lecture - CS506

Important Mcqs

Absolutely, here are 10 multiple-choice questions (MCQs) related to advanced topics in Servlets, along with their solutions and multiple options:

Question 1: What is the purpose of session management in servlets?

Options:

A) Managing servlet lifecycle

B) Handling multiple servlet requests

C) Maintaining user-specific data across requests

D) Cleaning up resources in servlets

Solution: C) Maintaining user-specific data across requests

Question 2: Which interface is used to create and manage sessions in servlets?

Options:

A) `HttpSession`

B) `SessionManager`

C) `UserSession`

D) `SessionHandler`

Solution: A) `HttpSession`

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

Options:

A) Processing user inputs in servlets

B) Handling HTTP requests and responses

C) Preprocessing and postprocessing requests and responses

D) Managing session data in servlets

Question 4: Which method is used to apply a filter to a specific URL pattern in a servlet?

Options:

A) `addFilter()`

B) `applyFilter()`

C) `setFilter()`

D) `addFilterMapping()`

Question 5: What is the purpose of a servlet listener?

Options:

A) Managing servlet lifecycle

B) Handling session data

C) Monitoring client requests

D) Responding to events in a web application

Question 6: Which listener is used to track attribute changes in the `HttpSession`?

Options:

A) `SessionAttributeListener`

B) `ServletContextListener`

C) `RequestListener`

D) `RequestAttributeListener`

Question 7: How does a servlet interact with a database using JDBC?

Options:

A) By sending SQL queries via GET requests

B) By directly embedding SQL in the servlet code

C) By using a separate configuration file for database connection

D) By invoking JDBC methods to connect, query, and update the database

Question 8: Which interface is used to represent a database connection in JDBC?

Options:

A) `Connection`

B) `Database`

C) `SqlConnection`

D) `DbConnection`

Question 9: What is the purpose of the `contextInitialized()` method in `ServletContextListener`?

Options:

A) Initializing servlet resources

B) Handling session events

C) Executing before a servlet is initialized

D) Executing after a servlet is destroyed

Solution: C) Executing before a servlet is initialized

Question 10: How can you handle exceptions globally in a servlet application?

Options:

A) By using try-catch blocks in every servlet

B) By setting a global exception handler in the `web.xml` file

C) By utilizing servlet filters to catch and handle exceptions

D) By embedding exception handling code in the `init()` method

Solution: B) By setting a global exception handler in the `web.xml` file