

Middleware GSD (WS 2017) – Exercise 5

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Description:

Educational Objective:

Architectural Design, Interfaces, Stateful Session Beans

Task 1 (Architectural Design):

N-tier architectures are often used for distributed web applications.

- i. Which and how many tiers do you suggest for an online shop?
- ii. Sketch a solution with Java EE!
- iii. Assign the following functionalities to a suitable architecture level and the corresponding Java EE technology:
 - Shopping cart,
 - Input form for changing customer data by the customer,
 - Discount calculation,
 - Preparation of the contents of the shopping cart for presentation to the user
 - Storage of customer data.

Task 2 (Concept EJB):

Explain and program at least two ways to use EJB instances in our tax program:

- I. Local Interface
- II. Remote Interface
- III. "Direct" use of the bean instance with annotations

Task 3 (Stateful Session Bean) :

- I. Program a Stateful Session Bean for a shopping cart
- II. Use this session bean in
 - an application client with a 'main ()' function,
 - a Servlet!