

CmpE 473 Internet Programming
Fall 2007
Assignment 3—Due: 28/11/2007

You will do this assignment in groups of four. One person in the group will be the project leader for each assignment in the course. The project leader should be different in each assignment.

You will implement a system for buying travel packages.

Scenario: Consider a group of three friends that are interested in going on a trip all together. To do so, they individually contact a travel agent and ask for possible trips. The travel agent provides at least a ski trip, a mountain trip, and a sea trip. After receiving the choices, each friend decides on the trip she prefers. They will go on a trip if at least two of them prefer the same trip. Going on the same trip means arriving at the destination using the same airline and staying in the same hotel. After they decide on the trip, each friend will consult the travel agent once again to make reservations. If all three friends can successfully reserve their places (both for airline and hotel), then they will pay the travel agent. Otherwise (if at least one friend could not reserve her place), they will cancel their reservations and find a new trip. The friends can talk to each other as much as they want.

Technical Details: The friends will communicate with each other using JMS. The travel agent will be an application that is served by an application server. For the possible trips, the travel agent provides places for at least two airlines and two different hotels. Design your application so that there is at least one session bean and two entity beans. The reservation information should be kept in the database and your entity beans should be synchronized with the database automatically. You can use any application server you like (Glassfish or JBOSS is freely available).

You should be able to demonstrate that (1) the friends communicate with each other using messages, (2) they can agree on a trip and reserve their places (3) they can finalize their trip because all of them managed to make reservations (4) they have to cancel their trip because one of them cannot reserve a hotel room or a flight.

You will give a demo of your system and hand in a detailed report on CD. You should turn in your CD on the due date **before** class.

Watch for the notification of demo dates. **All** members of the group need to be present in the demo. Be prepared to show all aspects of your program, including the different scenarios listed above. You need to explain the design of your system, your implementation of the communication between the clients and the server, and other details that are important for your implementation.

The demos will take place in the university so make sure that your demo runs on the PC Lab in the university or that you can bring in the necessary hardware and software for the demo.