

Component-Based Software Engineering	Exercise Sheet No. 3
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Using EJBs

Task 1: Do-it-yourself: Appointment Management

Form groups of 3 to 4 students and develop an appointment management system. Use Enterprise Java Beans to realise the system.

Users should be able to register with the system. For each registered user, the system stores the name and an email address, and maintains a calendar. A calendar is a list of appointments for a certain user. Appointments have a start time (and date) and an end time and date, a title, potentially some additional, textual notes, and can be of one of the following types: **Blocked**, **Free**, **Potentially Blocked**, **Away**. Additionally, appointments can be marked as private, which means they will not be made visible to other users under any circumstances. Users—once logged into the system—can add appointments to their own calendar. When doing so, they may request that the appointment be placed into another user’s calendar, too—typically because they are scheduling a meeting with this user. In such a case, the system shall check for conflicts with that user’s appointments. If there are no conflicts, it should add the appointment to both users’ calendars. Otherwise, it should inform the user of the conflict, and, if the conflicting appointment is not private, inform the user of the conflicting appointment. Two appointments are in conflict, if they overlap in time, and none of the two appointments is of type **Free**. Of course, the system should also check for conflicting appointments in the user’s own calendar.

Additionally, each registered user should be able to view his or her appointments for the current day.

Design your application following Cheesman/Daniels’ UML Components process. Develop the application using EJB3 and JBoss 6. You have until June 23 to finish the application. You should have your design documents ready until the May 26 exercise (although there’s no need to submit anything by then yet), where we will be discussing different design approaches. Please submit in electronic form your running and tested application (including source code), a short documentation of all the design steps (including diagrams), and a short documentation of how I can test your application. Also give me the names of all students in the group, of course.