

Distributed Systems and Security

Distributed Systems Coursework

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There will be a distributed systems coursework this semester, due on Friday of the last week of the semester. Details are as follows:

Task You will write an implementation of the rock-paper-scissors game, using EJB. There will be a pool of players, all of whom can log in to the game using credentials stored using the EJB persistence framework: pairs of them can play against each other by logging in to a website. Both of them have to agree to a game, and the EJB application should tell them whether the other player has agreed or not. If both players agree, they then choose from the three alternatives, and the EJB application then awards them a score: it keeps track of the cumulative scores using the persistence framework. Users can also log in and find out their cumulative score and where they stand in the ranking.

Groups This will be done in groups of 2 or 3. Choose your own groups.

Deliverables Mainly a report describing your design decision, together with your source code.

Marking I prefer short, clear documents to long, dull ones.

The EJB lab work will be a preparation for this. The main lab task will be to work through the netbeans e-commerce tutorial, which is at <https://netbeans.org/kb/trails/java-ee.html>

You will not be marked on your lab work, but it will be useful, because it teaches you how to design an EJB webapp. This is very useful, because the EJB documentation usually tells you about the components but not about how they fit together. **However**, the e-commerce tutorial does not tell you very much about message-passing beans, and these will be useful for implementing the game; it is tempting, but inefficient, to handle all of the interaction between players using the persistence layer. Don't.