Assignment 3

RMI-Chat

This programming assignment gives you the opportunity to port your client-server Internet Chat System to Java RMI. It counts 5% towards the final grade. This new chat system should exploit the Java RMI framework instead of interfacing the TCP protocol at the socket level.

Instructions: You are allowed to work alone or in teams of two students.

For the application itself, the same requirements as for the previous Assignment 3 hold (minus buffering), and you are encouraged to exploit your previous experience on this application. In particular, you are free to reuse your own existing code whenever appropriate in the new RMI framework.

Tasks

For this project, you are asked to

- 1. present your algorithm design, showing in particular what RMI interactions occur among the components of your application;
- 2. develop an RMI-based Java implementation of both client and server. The Java solution should be robust wrt. client and server failures;
- test your implementation, and report on possible bugs and/or unexpected behaviors you should find;
- 4. discuss how the new version differs from the previous one based immediately on TCP and point out which changes and improvements or drawbacks were brought about by the new RMI version.

Deliverables

Submit a single file RMIchat.zip which contains

- 1. A 2–3 pages project documentation discussing the tasks above;
- 2. Two files Client.java and Server.java (more classes are ok).

Submission: Friday, 29th of April, 10am via Moodle.