MIC0003: Computer Networking
Assignment 4: Chat System

Deadline: 11 April, 2011

The goal of the assignment is to familiarize yourselves with handling multiple cuncurrent and interdependent network sessions.

1 Assignment

Your assignment is to implement a simple - IRC like - chat system (server + client):

- All clients join a single chat room.

- The list of participants should be visible (or queryable) to everyone.

- Public and private messages should be supported.

- Usernames are reserved during joining (conflicts handled appropriately).

You are free to implement any kind of communication protocol between the server and clients, but, for simplicity, an SMTP-like plaintext protocol is suggested.

The emphasis is on the network communication itself, a graphical user interface (GUI) is not necessarily required (i.e. a command line interface (CLI) will do just fine).

2 Notes

- You can try implementing the chat server first and simulate the clients by direct telnet connections (if you choose the plaintext protocol way).

Google is your friend.

3 Deliverables

The programming language is not fixed (i.e. you can use whatever you like), but a compilation script **must** be provided (makefile for C/C++, ant file for Java, etc). The compilation script requirement is waivered if the solution is presented in class, and strictly before the deadline.

All the source files must include your full name, user name and group identifier (the lack thereof leading to a failed assignment).

The source files, compilation script and other data files should be uploaded in a single archive to the usual location (http://www.scs.ubbcluj.ro/~labhu/laborok.php).