

a simple chat-room

The aim of this work is to build a client for a simple chat room service. The chat room server has already been created for you.

The operation of the chat room is very simple. When a client has joined the service it will receive all messages sent to the room by any clients and it may send messages to the room server.

The server loads through the IDE, it is probably easier to develop your client so it also loads through the IDE (check IDE user guide for a reminder).

When the server loads it creates 2 agents, the management agent & the messaging agent. The management agent deals with clients joining & leaving the chat room. The messaging agent handles message distribution to clients.

The default name for the chat room is "room1" but this can be changed by using the command line feature of the IDE when it loads agents. If you write "*name=MyRoom*" the room name will be set to "*MyRoom*".

Assuming we stick with the default name (room1) then the two agents created by the server are called...

1. *room1manager* – the name of the room followed by the word manager. This handles clients joining and leaving the chat room. Clients should send the message "join" to the management agent to join a chatroom and "leave" to leave it;
2. *room1* – the name of the room. Chat-room clients/members should send messages to this agent to have them forwarded to other chat room members.

stages

1. write a basic client which loads through the IDE, joins a running server and can send & receive chat room messages. Use something simple to display chat room messages & other relevant information (a text area for example).
2. extend the server so one server can manage multiple rooms (you will need to make some decisions about how the rooms are created, etc).
3. rewrite the server (& modify the clients) so the server informs clients when it is about to shut a room & clients act appropriately.

advanced work

Modify & extend the work so it behaves as a collaborative, multi-user editing system for short text files (check out JEditorPane).