



Software Design & Architecture Project

Real-Time Chat Application: Project Proposal

Group: 7

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Introduction:

Our course project for the semester is a real-time chat application called USChat. The project will be put together by Sujeev Uthayakumar, Zirak Mughal, Kalapan Kannathasan and Yash Patel. The application will allow users to join chat rooms, and communicate within the chat rooms. The user can join rooms through a specific room id. The overall concept is to allow synchronous communication between users. The project will be tracked using github, the repository url is:

<https://github.com/Sujeev-Uthayakumar/sofe3650-final-project>.

Functional Requirements:

R1	Authentication of a user's joining rooms
R2	Ability to send user location to other users within the room
R3	Allow only unique users to join rooms
R4	Every room id must be unique to prevent mixup between rooms.
R5	Ability for users to set a specific display name for themselves.
R6	Display users currently in the room
R7	Allow every user to send a message
R8	Allow users to register

Non-Functional Requirements:

R9	User messages should be sent in less than 1 second on either end
R10	User's should be able to join rooms in less than 3 seconds
R11	The rooms should be able to handle at least 10 users without any performance losses
R12	The interface should be simple and easy to use
R13	Application must be easy to maintain as well as update

R14	The user should be able to see the time which the message was sent
R15	The user should be able to scroll through the chat, with an auto scroll feature
R16	The user should be able to differentiate between their and other users' messages.