**Chat Application**

ESC101 Advance Track Project Proposal

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# Overview

The project aims to create a web-based real time chat application, which can be used by any organisation/community to have two-way one-on-one as well as group conversations. The initial idea will be to create a LAN based chat client, that serves the above purpose within IITK for students.

# Goals

1. Implement basic client server functionality to store login details, chat lists
2. Implement 1 on 1 chat functionality to let clients chat to one other (either via server or P2P)
3. Implement chat room facility on server (both custom chat rooms and automatically generated chat rooms)

# Specifications

The entire project will consist of two sections, client-side and server side applications.

On the server side, we anticipate using a database to store user records, chat histories, as well as chat room details.

On the client side, we shall initially implement a native Python client on LInux that can achieve basic functionality by connecting to the server / other clients. In addition, we shall try to implement a web based client as well in Javascript.

The project will use Websockets**,** a computer communications protocol, to manage the chats and users, with the help of Python language. The database will be implemented with the help of SQL.

The client-side will have a front-end implemented with the help of HTML/CSS, and the dynamic page content will be delivered with the help of JavaScript.