

MyTeams Documentation

Introduction

The **myTeams** project is a collaborative communication application aimed at facilitating team-based discussions and personal messaging. It consists of a server and a Command Line Interface (CLI) client implemented in C programming language. The communication between the server and clients is established using TCP sockets.

Project Overview

myTeams allows users to create, join, and leave teams, create channels within teams, start threads in channels, and engage in personal discussions. The server is responsible for managing user authentication, team subscriptions, message storage, and event handling. The CLI client provides a set of commands to interact with the server and perform various actions such as logging in, sending messages, subscribing to teams, creating threads, and more.

Server Features:

- Handles multiple client connections simultaneously using select for command management.
- Persists internal information upon shutdown and loads it upon startup.
- Implements a collaborative communication application similar to Microsoft Teams®, organizing discussions into threads within channels.

CLI Client Features:

- Provides commands to interact with the server, including logging in, sending messages, subscribing to teams, creating threads, and more.
- Displays responses from the server and handles user input for executing commands.

All Commands available:

/help <CRLF>: Show help

/login "<username>" <CRLF> : set the user_name used by client

/logout <CRLF> : disconnect the client from the server

/users <CRLF> : get the list of all users that exist on the domain

/user "<user_uuid>" <CRLF> : get details about the requested user

/send "<user_uuid>" "<message_body>" <CRLF> send a message to specific user

/messages "<user_uuid>" <CRLF> : list all messages exchanged with the specified user

/subscribe "<team_uuid>" <CRLF> : subscribe to the events of a team and its sub directories (enable reception of all events from a team)

/subscribed "<team_uuid>" <CRLF> : list all subscribed teams or list all users subscribed to a team

/unsubscribe "<team_uuid>" <CRLF> : unsubscribe from a team

/use "<team_uuid>" ["<channel_uuid>"] ["<thread_uuid>"] <CRLF> : Sets the command context to a team/channel/thread

/create <CRLF>: create a team, a channel, a thread or a reply based on the context you are currently in

/list <CRLF> : list all teams, channels, threads or replies based on the context you are currently in

/info <CRLF> : display details of the users, the selected team, the selected channel or the selected thread based on the context you are currently in

All Reply Codes:

Logs and users reply codes:

- 100 client connected to the server
- 120 user logged successfully
- 122 user already logged in
- 124 bad argument for /login command
- 140 user successfully disconnected
- 160 list of users retrieved successfully
- 162 user details retrieved successfully
- 170 list of commands retrieved successfully

Messages sending reply codes:

- 200 message sent successfully
- 224 bad arguments for /send command
- 226 user not found for this message
- 240 list of messages retrieved successfully
- 244 no message exchange found with this user

Subscribe commands reply codes:

- 300 subscribed successfully
- 303 can't subscribe, team not found
- 320 unsubscribed successfully
- 322 you are not subscribed to this team
- 326 can't unsubscribe, team does not exist
- 340 list of subscribed teams retrieved successfully

343 can't list subscribed users, you are not in this team

346 can't list subscribed users, team does not exist

Context commands reply codes:

400 context set successfully

402 bad arguments for /use command

404 context not found

412 creation successful

413 bad arguments for /create command

420 list retrieved successfully

430 information retrieved successfully

Errors reply codes:

530 user not logged in

550 server closed the connection