Linux Chat

The Simple chat program that allows you to communicate with your peers in a free and friendly environment.

Local Area Communication

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# Technical Report

## Summary

## Introduction

### General Test Evaluations:

Blah blah blah, we are looking for these results and in general the environment looks like blah blah blah

## Iteration 1: Client Connects to Server

### Test Environment:

On a Fedora machine, we are running a local server while having another computer acting as a client. We will enter in our username, the server’s IP Address and our desired username.

### Test Purpose:

We will test the basic functionality of a Client connected to a running server.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 2: Client Sends a Message

### Test Environment:

On a Fedora machine, we are running a local server while having another computer acting as a client. After a successful connection, we are going to send a message to the server.

### Test Purpose:

We will test the basic functionality of a Client connected to a running server and sending a message to the server.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 3: Client Receives a New Message

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. After a successful connection, we will remain connected until the other client sends a message.

### Test Purpose:

We will test the basic functionality of a Client connected to a running server and how an active chat operates.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 4: Client Has a Bad Username

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. We will attempt to connect to a client with no username.

### Test Purpose:

We are testing to see if, essentially, a client successfully connects and specifies no username. A connection will occur initially but will be refused when there is no name.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 5: Client Disconnects

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. After a successful connection, we will disconnect after a chat session.

### Test Purpose:

We are checking to see if a server properly handles a client’s disconnection and sends a message to all the clients when those connections end.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 6: Client Reconnects

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. After previously being disconnected, we will re-enter the chat as a new user with the same IP Address as before.

### Test Purpose:

We are checking to see if a server properly destroys a disconnected client’s information and then recreates the client with a new username and chat instance.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 7: Client Logs the Chat Session

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. Right before the client connects, the client specifies that they want to log this chat session. Afterwards a normal chat session will occur.

### Test Purpose:

We want to see the result of how the chat log appends every new chat message until a client session ends. Any non-ascii characters will be regarded as errors.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 8: Client Has Bad Credientials

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. The client will attempt to connect to a server with:

1. The wrong port number
2. An invalid IP Address

### Test Purpose:

A client that attempts to connect with the wrong credentials should immediately fail and return to the login page.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 9: Creation of a New Server Instance

### Test Environment:

On a Fedora machine, we will start the server with no clients.

### Test Purpose:

Checking to see if a server can initialize.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 10: Normal Server Operation

### Test Environment:

On a Fedora machine, we will see the normal operation of a server when multiple clients connect, disconnect, reconnect and interact with each other.

### Test Purpose:

We want to see normal client interaction and how the system handles it. Anytime the server crashes will result in a failure.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Iteration 11: Server Stops Running

### Test Environment:

On a Fedora machine, we are running a local server while having two computers acting as a client. After normal user interaction, the server will suddenly stop. This will destroy all current client connections.

### Test Purpose:

We want to see what happens on the client end when we can’t send and receive messages to a server. A client instance should terminate when there are too many failures.

### Test Results:

**Test 1 – Fig 1 Test1 – Fig 2**

### Test Conclusion:

## Conclusion of the resulting tests:

It work good, plz use. Also this doc is awesome.