Project 01 Proposal

PhatChat

Josephine Lipkin, Justus Flerlage

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Table of Contents

1.0 Project Overview.....2
1.1 Abstract.....2
1.2 Target Customers.....2
1.3 Keywords.....3
1.4 Scope and Objectives.....3
2.0 Team and Contraints.....4
2.1 Team Profile.....4
2.1 Challenges.....5
2.2 Assumptions and Contraints.....5
3.0 Deliverables and Milestones.....5
3.1 Project Deliverables.....5
3.2 Schedule and Budget Summary.....6

1.0 Project Overview

1.1 Abstract

PhatChat is a simple group chat, a chat between mutliple users, using a chat client to send messages between them. Each message is transmitted to a server, which broadcasts the message to all connected clients. Therefore the chat is splitted between a client application and a server application.

1.2 Target Customers

Our chat targets anyone who wants to communicate with others in a group chat. This can be usefull everywhere where collaboration or socializing is needed.

- Team manager or the like (direct customer)
- Team members or the like (indirect customer)

1.3 Keywords

Group; Chat; Multi; User;

1.4 Scope and Objectives

- developed in C++11
- cmake as cross platform build system
- chat is splitted between the client application and the server application
- each client is connected to a server
- to connect to a server the user uses the servers ip address and port number, which are entered into a graphical formular
- on a successful connect the user can enter his messages into a small text box
- on enter or if the send button was pressed the client sends this message to the server, which broadcasts the message to all connected clients
- if a message is received by the client it gets drawed by a big text box
- usernames are used, so that each user is identifiable to other users
- the transmission control protocol (TCP) is used as transport protocol, since reliable connections and transfers between server and clients are needed
- the implementation of cross platform TCP sockets is done by the network module of the SFML library
- the implementation of cross platform thread handles is done by the system module of the SFML library

- as GUI library FLTK is used
- client and server use the same core code, which implements necessary functions and classes especially the chat protocol
- the client application uses SFML for threads and sockets and FLTK for the graphical user interface
- the server application uses only SFML for threads and sockets

2.0 Team and Contraints

2.1 Team Profile

Josephine Lipkin

- moderate programming skills
- good design background

Justus Flerlage

- good programming skills, especially with C++
- already realized a few projects on his own

2.1 Challenges

- designing a simple chat protocol, which can be extended easily
- writing fast and reliable network code for both server and client
- avoid resource consuming applications

2.2 Assumptions and Contraints

- application will not be used on mobile devices
- on server shutdown the data (chat historiy) is lost

3.0 Deliverables and Milestones

3.1 Project Deliverables

- Project Proposal
- Manual
- Source Code
- cmake build script

3.2 Schedule and Budget Summary

Item	Date
Project Proposal	April 19, 2015
Proposal Presentation	April 15, 2015
Demonstration and Delivery	May 7, 2015