Squire: A Collaborative Software Development Tool

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Contents
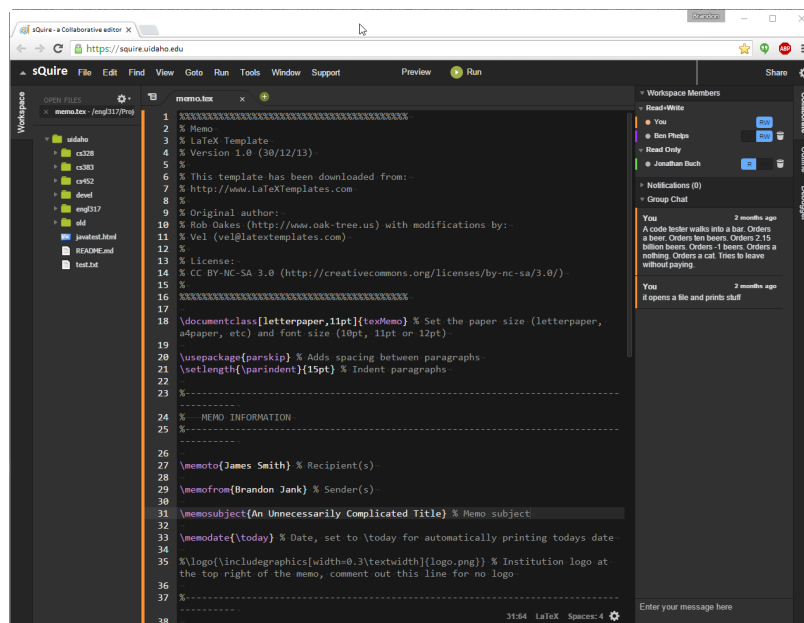
Chapter 1

Overview and Scope

Figure 1.1: "Squire is a web-based collaborative software development environment with a project development center. Squire will allow multiple users to edit files and communicate in real time. Projects can be "stubbed" out by a user and then other users can join and/or vote to support for their favorite projects. After a certain amount of support, planning, and documentation is reached for a project, the project becomes a fully fleged project and then community development can start. Think "kickstarter for code" where people pledge their help with the project and not just financial support."

Chapter 2

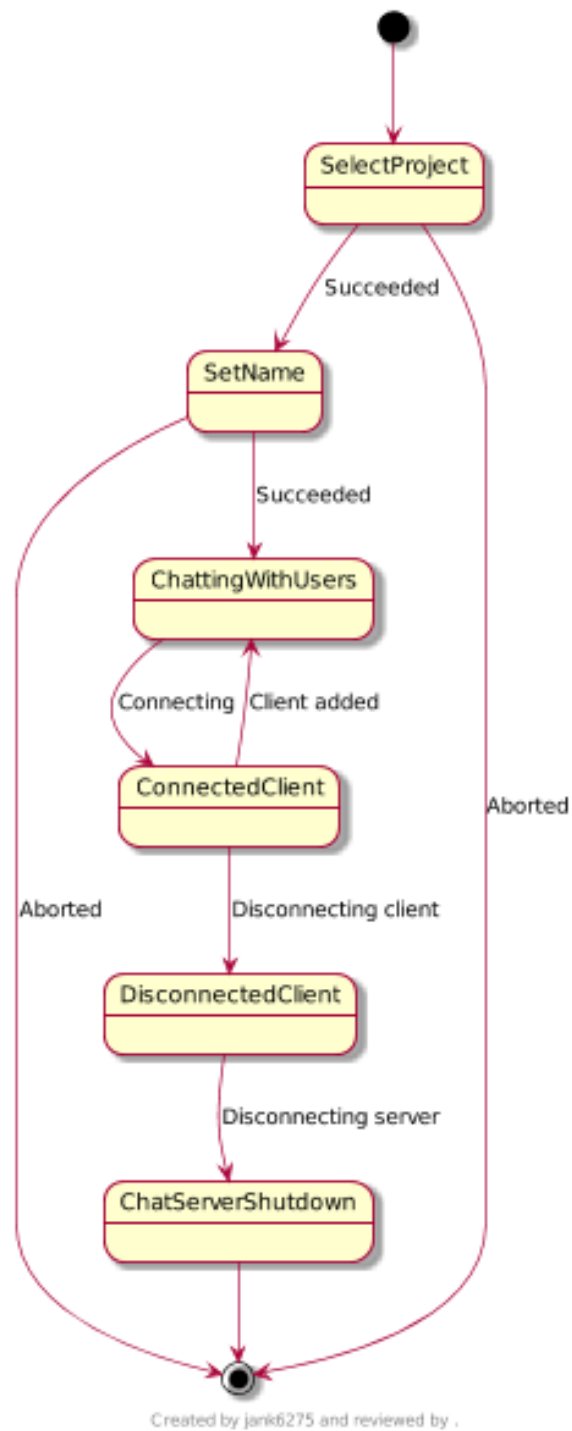# State Charts

2.1 Communication (jank6275)

Figure 2.1: A statechart that shows the various states of the communication system.

Chapter 3

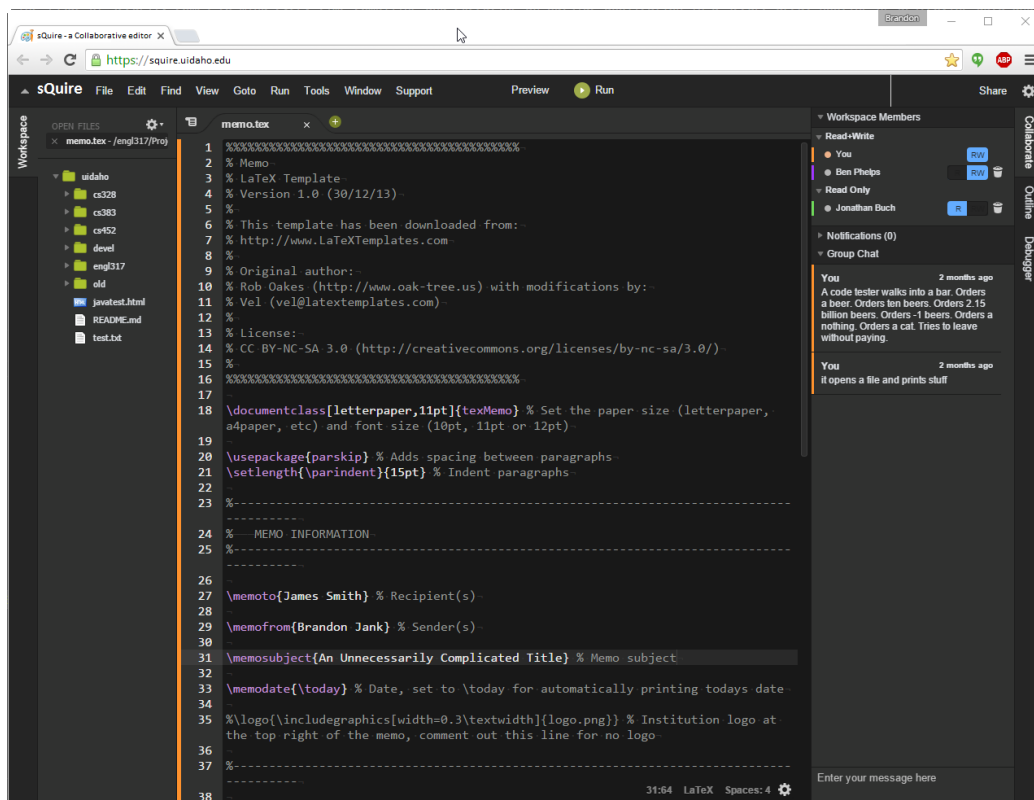# User Interface Mockups

3.1   Squire Editor (jank6275)

Figure 3.1: What we envision Squire IDE to look like.
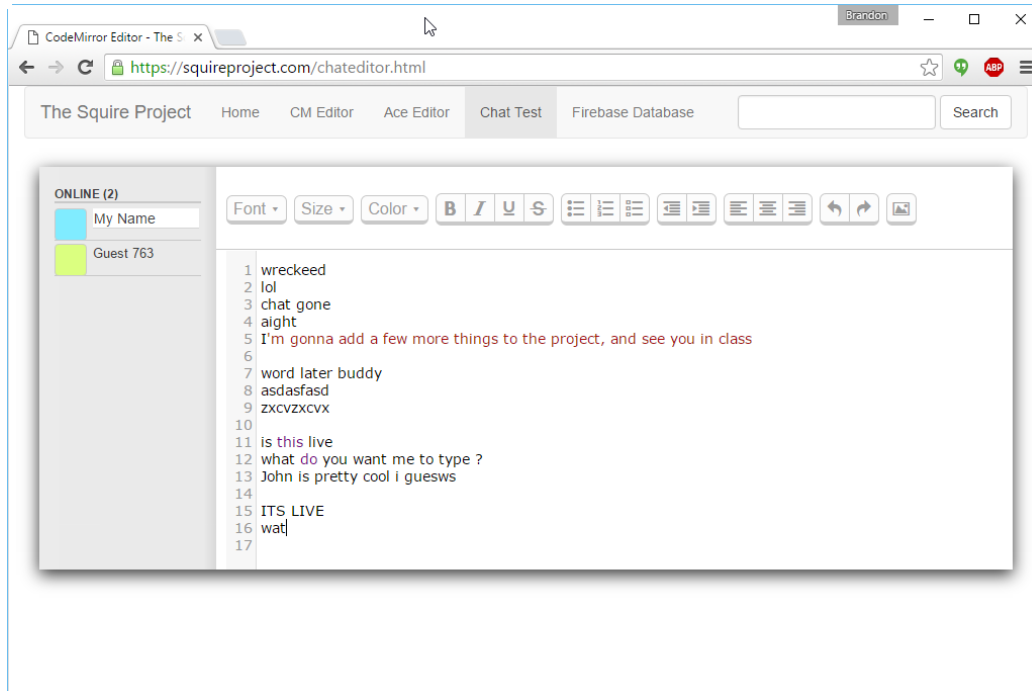
3.2   Squire Chat (jank6275)

Figure 3.2: How communication could work in squire.

Chapter 4

Prototype Implementations

4.1 Server Stack (jank6275)

```
squire@vps74224:~/public_html$ ls
ace-builds      chateditor.html  css     images      info.php
aceeditor.html  cmeditor.html    fonts   index.html  js
squire@vps74224:~/public_html$ head index.html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="utf-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1">

    <title>The Squire Project</title>

    <meta name="description" content="Squire is a web-based collaborative softwa
re development environment with a project development center. Squire will allow
multiple users to edit files and communicate in real time.">
squire@vps74224:~/public_html$ head /etc/nginx/sites-enabled/squireproject.com

server {
    listen    80;
    listen    [::]:80;
    listen    443 default ssl;

        server_name www.squireproject.com squireproject.com;

        ssl_certificate        /home/squire/ssl/star.squireproject.com.crt;
        ssl_certificate_key   /home/squire/ssl/star.squireproject.com.key;
squire@vps74224:~/public_html$ uname -a
Linux vps74224.vps.ovh.ca 3.13.0-55-generic #94-Ubuntu SMP Thu Jun 18 00:27:10 U
TC 2015 x86_64 x86_64 x86_64 GNU/Linux
squire@vps74224:~/public_html$ █
```

Figure 4.1: The internet domain squireproject.com was registered and an SSL certificate was generated for secure communications. A virtual private server was provisioned and Ubuntu 14.04 installed and then hardened to common network attack vectors. Nginx and MySQL were installed and configured. The web content was written in HTML and bootstrap CSS.

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