# Final Project Proposal: "Brush Me Up"

#### Overview

"Brush Me Up" will use spaced repetition (<a href="http://en.wikipedia.org/wiki/Spaced\_repetition">http://en.wikipedia.org/wiki/Spaced\_repetition</a>) to help users remember things they've learned. A user can enter a memo (short-ish blurb of something they want to remember), and the application will remind the user at increasingly spaced intervals. When a users sees one of their memos, they can select either "Dang, I keep forgetting" or "I'm gettin' it" to influence the spacing before the next time this memo is shown.

## **Technologies**

- Ruby on Rails web development framework
- PostgreSQL (kinda irrelevant as it's hidden behind the ORM)
- HTML + CSS for UI
- RSpec for unit tests
- Cucumber + webrat for integration tests
- Selenium for system tests

#### Motivation

I forget stuff.

#### **Intended Users**

Anyone who forgets stuff.

#### **Features**

- Show memos at intervals based on spaced repetition
- Users can provide feedback to emphasize or play down certain memos
- Counter to tell users how many memos to view before they're caught up
- Email reminders if users forget to brush up
- All functionality available before choosing a username and password: by default, users will use
  a created username-less account with an access token stored in their cookies. When "signing
  up", we'll just assign a username and password to the account and delete the cookie.

### **Testing**

To test this application, I will use a mixture of unit, integration, and system tests. When writing a new feature, I'll start by writing user stories explaining the functionality and different behaviors the user can expect to see based on their actions. Only user-noticeable changes will be included here. These stories can then be executed by Cucumber. In executing a story, webrat will simulate a browser requesting a page, filling out form elements, clicking buttons, etc., and check that the desired effect is achieved.

Webrat can not execute Javascript, so this serves well as a regression test for non-Javascript capable browsers. The equivalent Javascript-enabled functionality can be tested by Selenium. For any non-user-visible effects that must be tested (for instance, how often and in what frequency and order memos appear based on their spaced repetition and user feedback).

### **Documentation**

The English-language user stories of the Cucumber tests are supposed to serve as both tests and documentation.

# **Weekly Schedule**

Week 1: add a memo, show next memo with "forgetting" and "getting it" buttons (no JS)

Week 2: counter of memos to view, javascript-ify week 1 functionality

Week 3: send out email reminders when a user gets behind schedule

Week 4: "account creation" - choose a username and password

# **Original Mockup**

