

WEBSCALE Team Write Up

<https://github.com/326-WEBSCALE/webscale-synthesizer>

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Overview

Synthesizer is a project to bring program synthesis to the masses via an intuitive web UI that allows users to edit programs in the browser, synthesize missing constants in their programs, and collaborate with others. Since the last submission, we have added login/logout functionality and the ability to save programs and to load them.

Design Overview

When first visiting the site or after logging out, the user is presented with a “Log in” button in the top-right corner of the page. When they click it they are brought to the login page and after logging in successfully, are brought to the home page but with the “Log in” button replaced with their username and a drop down menu. The drop down menu includes link to their profile page and the link to logout. The profile page displays the user’s name and all of their saved programs. If a user elects to log out, they are brought to the logout page. The profile edit page can be used by users to edit their profile info and the main page supports saving programs for logged in users. Several test users exist, all with the same password, “password12345”. User “jdoe” is a good test user to look at.

Problems / Successes

Overall, team communication was a success. Jared has continued to take a leadership role in the project, assigning members of the team very specific tasks to complete. This makes it very easy for us to do our part and coordinate with others.

The only “problem” we ran into during our development of this project was that we inadvertently were overriding the session user by passing a user variable through the context to the template.

Team Choice

For our team choice, we plan to bring all of our application’s functionality together. First, the actual synthesizer will be wired up; that is, we will connect our front-end interface for synthesizing programs with our back-end service. Second, we will integrate Google Drive with our program to allow users to save and load programs to and from Google Drive. Finally, we will allow users to customize their profile with a profile picture, which will display next to their name in discussions.

Individual Write Ups

Individual Write Up: **Steven Borst**

My contribution this time is lesser than in previous submissions because I did a lot in the last submission. This time around I customized the login and logout pages using CSS to match the rest of our website. I centered the text, made it legible and made sure that the links all

worked as intended. I wrote a large portion of the team write-up as well. I wrote the Overview and Design Overview. I would say I contributed 15%.

Individual Write Up: **Jared Holzman**

For this project, I acted as a team lead and assigned tasks to different teammates so that they each could have clear and distinct features to work on. I added the initial session functionality, including basic login/logout forms and changed the nav bar to reflect the logged in user. I also migrated our data model to reflect the new user changes. Overall, I feel that I have contributed 20% to this submission.

Individual Write Up: **Rachit Nigam**

For this project, I implemented the save and load functionality for displaying user programs. First I implemented the load snippet functionality by changing the index view to get the current authorized user from the session. I implemented the functionality to display the snippets saved by the user. If there is no user currently logged in, I display a default message. Second, I implemented the save functionality for user programs. The save button introduces a new modal page for the user. The user can then fill out information for the program inside the modal. Hitting "save" sends a POST request to the server. I leveraged Django's form implementation to validate and insert this data into the server. Overall, I feel that I have contributed 20% to this submission.

Individual Write Up: **Maxim Berezin**

For this project I introduced the ability for users to write and post comments on snippet discussions. I had to follow form and Comment model etiquette and followed a similar course as the profile edit form. I also followed a similar card layout to pre-existing comments for the posting comment field. I would say that I contributed 10-15% to this project.

Individual Write Up: **Sean Barker**

My contribution to this project was wiring up the profile page to use session information. Specifically, when the user visits the default profile page, their own profile page is shown if they are logged in. When a logged-in user visits their own profile page, they are shown a link to edit their profile information. I also implemented the profile editing page, allowing a logged-in user to edit their personal information (e.g. change their password or email). The user completes changes in a form, and then submits the form and the changes are saved on the server side. Overall, I feel I contributed 20% of this round of the project.