Urania Final Project README

Code Coverage for Lambda Functions

Element	Coverage	Covered Instru...	Missed Instruct...	Total Instructio...
Urania	66.8 %	3,958	1,970	5,928
src/main/java	62.6 %	1,831	1,095	2,926
urania.snippetSystem.http	51.8 %	508	473	981
urania.snippetSystem.db	60.3 %	573	378	951
urania.snippetSystem	72.5 %	642	244	886
urania.snippetSystem.model	100.0 %	108	0	108
src/test/java	70.9 %	2,127	875	3,002

This is an image of our code coverage report. For a more detailed view, we are attaching files in our submission which exported our code coverage as an HTML. Opening the HTML should bring you to an interactive code coverage page.

Admin

To access the system administrator functionality,
go to http://uraniasnippetsystem.s3-website.us-east-2.amazonaws.com/admin.

Upon entering, all existing snippets will load in the table. If there are more than 10 existing snippets, you can use the pagination buttons in the bottom left to view additional snippets. Note that it may take a few seconds for snippets to load in. Snippets are listed with id, descriptions, and timestamp in 24hr time EST. Snippets are default sorted by most recent creation date, but by clicking on the arrow, you can change between unsorted and sorted by earliest creation date.

To search for a snippet, simply search for part of the snippet's ID in the search bar. This will allow you to find specific snippets to delete.

To delete a single snippet, click on the trashcan icon on the right of the snippet row. Note that the first time deleting may take a couple seconds as AWS will likely be booting up. After you delete, the deleted snippet should be removed from the list and the remaining snippets should remain.

To delete stale snippets, click the button at the bottom called delete stale snippets. Upon clicking, a pop up should ask for you to input days old. If you input 30 days old, then all snippets that are 30 days old or older will be deleted from the system. If you input 0 days old, the program will delete all snippets as all programs are older than 0 days. You can also specify days old with decimals such as 1.5 days.

When deleting stale snippets, we created a couple of older snippets for you to test this functionality.

User

To access user functionality, head to http://uraniasnippetsystem.s3-website.us-east-2.amazonaws.com/.

Upon entering, a new snippet should be created automatically with a unique snippet ID at the top and a creation timestamp. If snippetID does not exist or is of a snippet that has been deleted, a pop-up will display with "Snippet not found" message.

Pre-loaded Snippets (Creator and Viewer Role)
http://uraniasnippetsystem.s3-website.us-east-2.amazonaws.com/795f164e-1130-4c15-9c28-01fb7addbb4d/creator
http://uraniasnippetsystem.s3-website.us-east-2.amazonaws.com/795f164e-1130-4c15-9c28-01fb7addbb4d/

On the left side, the control panel is displayed with the role 'creator' or 'viewer.' All the buttons will work now:

- 'View as Viewer' redirects to the same snippet but as a viewer role.
- 'View Snippet' is a button that asks for a snippet ID and will bring you to that snippet ID.
- 'Create New Snippet' generates a new blank snippet and brings you to it.
- 'Delete Snippet' deletes the snippet and brings up a pop-up to let you know that the snippet has been deleted. It does not redirect.

In this iteration, passwords are enabled. If a creator enables the password, the pre-generated password will be displayed. That is the password that must be used to login. Creators never need passwords even if the password is enabled for the snippet, but viewers will need to input the correct password if the password is enabled.

Snippet info is now moved to the control panel as well. It is editable by the creator but not by viewers. The creator must save his changes if he wants to update the snippet info.

The area in the middle is used to change the snippet text. The 'Save' button must be pressed for changes to be uploaded to the database. As a viewer, you need to refresh the page to see changes made by a different user. Both viewers and creators can change snippet text. There are drop down menus that allow you to select the text editor mode (Sublime, Vim, or Emacs) and programming language (Java, Python, or C++) for syntax highlighting. The default language is Java, the text editor and syntax highlighting are only changed on the front end.

The comment area is displayed on the right side. To add a comment, a creator or viewer must select some text in the snippet text area and put text in the comment submission area. Only then will a comment be added. The 'Add' button is only enabled if text is selected. If a user tries to submit an empty comment, a pop-up will come up and warn the user that the comment was empty. Once a comment is created, it is not editable. There is the 'Delete' button at the bottom of each comment that will delete that comment and stop it from being highlighted. There is the 'Search' button also at the bottom of each comment. When pressed, this button changes the color for the associated comment highlight and colors the border of the comment in white so that the user can understand the connection between the comment text and the comment highlight.

Notes:

- Upon the first time loading up a snippet, the Lambda functions may take a few seconds to ramp up. After adding a comment or saving snippet text, it is a good idea to wait a few seconds before refreshing the page to view changes.
- As a viewer, you can become a creator by adding '/creator' to the end of the url.
- If anyone changes the snippet text and tries to add a comment before saving the snippet text, a pop-up will appear and notify them that they can save and add the comment. This is because the snippet text can be updated by another person, and if the current user hasn't refreshed, then their snippet text will be stale.
- If multiple viewers and/or creators are viewing the same snippet at the same time, and the snippet gets deleted in the meantime by one of the users, any actions by other users (save snippet, add comment, enable password etc.) will trigger the popup with message "Snippet not found".