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<div align="center">Frontend/Ui</div>

Before anything working on any code, we made a mock up of how we wanted to structure our project. We made our mock ups in figma because it was easy to use and it allowed us to easily collaborate with each other. Once we decided and agreed on our front end design, we had to choose a language and a library to make our frontend with. As stated before in the materials section we decided to make our front end user interface with python and the custom TKinter library. We decided to go with the custom TKinter because we thought that it wasn't too difficult to understand with our group's previous experience in TKinter, also we thought it had some very nice looking widgets that we wanted to use such as buttons, labels, and option menus. The way that our frontend works is that we have a main frame that has 5 buttons to navigate to other frames/pages of our application: File select/auto grader , comparison page, about page, and the how to page, and a quit application button. In our "How to Use" frame, we give concise description on how to use our application. The "About" frame gives a description about what sift is, who developed it, and our MIT open source license. The "Quit" button just closes out the application. In the "Settings" frame we allow the user to change how the application operates. Currently we have only 2 values that they can change, which is the coding language that they are going to upload to be graded, and the color of the theme that they want the user interface to have. When a new color is selected, the app restarts and takes you back to the first frame with the theme now the color that you chose. In the "Autograder" frame we have 4 buttons, one to select the file(s) of your code to run, another selects what the expected output should be for your code. At the bottom, the "Compare" button is what takes you to the comparison page to compare the outputs of the uploaded code and the expected outputs, and the back button returns the user to the main frame. Finally the comparison page is where the code output is compared to the expected output file. Any differences are highlighted on both sides. Currently there are 5 color themes to choose from, dark, light, red, green and pink.

Welcome to SIFT

Autograder

How to Use

About

Settings

Quit