For my semester project, my aim is to create a web interface that I can use to interact with multiple network appliances simultaneously over a ssh connection.   While the end goal would be to deploy the web interface on a web server that can be accessed over the web, for the sake of security and simplicity I will begin by creating a locally hosted application that is functional.

My first step for this application will be to create methods that can be used for adding and removing configurations for the target devices.  This page will have a list of devices already configured, as well as a form with the fields needed to add a new configuration.

Next, I will add a page that will provide a command line interface for sending commands and receiving responses from selected the devices.  This page will include a input field with warnings and alerts for potentially dangerous commands, as well as a dynamic output element that shows the responses of the devices.

After those pages are added, I will add functionality to the configuration page that allows different settings to be added, such as expected responses, and time permitting, security configurations that allow me to safely cache credentials. Further refinements will be added to the command interface page to allow more advanced I/O, such as filtered, or 1-click commands that run by pushing a button.

My goal is to have the program run asynchronously, and to track active connections between pages, but depending on the complexity of such a task, I may start by initializing connections in the command interface page.