

Introduction

For this assignment, you will work in the same teams as your previous assignment. Your goal is to create a professional-looking Web application that uses Flask+React+SQLAlchemy. The application will be a single-page application (SPA) that communicates—for the most part—asynchronously with the Flask server. React and Bootstrap will serve as the front-end for your application. The application itself is a reservation system for using the computers in the HPCVC (which you may know as the “Byte Pipe”).

Requirements

Initial Requirements:

- 1.) Users should be able to register and then log in and log out.
- 2.) Users should be able to see a list of the HPC workstations found in the HPCVC along with which workstations are currently reserved and by whom. If you want to produce something fancier than a simple list, you are welcome to do so, but a simple list of the workstations will do.
- 3.) Users should be able to reserve an HPC workstation when it is listed as “available.”
- 4.) Users should be able to “release” their reservation.
- 5.) The display should refresh itself on 30 second intervals. This should not be a full page refresh. It should use `window.setTimeout` and Ajax to accomplish this.

Further Requirements:

Applications must be SPA’s. Only one page is allowed. JavaScript, CSS, React, and Bootstrap should be used to manage the application within a single HTML page.

The look-and-feel of the application should be professional. Common elements should look the same. Elements should have a consistent spacing between them. Graphics and other visual elements should be professionally appealing.

Submission and Presentation

Final applications should be zipped and uploaded to Canvas.

The actual application is due at the very end of the Spring 2023 term, that is, the last day of the term no later than 5:00 P.M. Submissions that occur after 5:00 P.M. will not be accepted.

All students are required to attend the final exam timeslot. Each team will give a quick demo of their application at that point in their development. Time not spent doing demonstrations will be open help session time.