

Assignment 4: Website setup using React

CS185 Spring 2020

Assigned on April 20, 2020

Due Monday April 27, 2020 by 11:59pm PST

1 Overview

The goal of this assignment is to provide an introduction to the 'React way' of doing things. React is a Javascript library or more appropriately a framework built using JavaScript which allows building web applications in a more robust and modular way. Prime features like Components and States enable organising the web app constituents into modular packages. These components can be dealt independently by binding UI and operations into each individual Component while maintaining definite states. The primary objectives of the assignment are as follows

- Firstly, to create a basic React setup starting from installing npm, creating a broiler plate React app and running it on the browser.
- Secondly, to get familiar with the idea of 'Components' and learn to appropriately compartmentalize the web application components.
- Lastly, to learn how to use 'States' to trigger UI update based on the state

2 Deliverables

The above objectives will be achieved by porting the website you have created till now using HTML, CSS and JavaScript to a React application. It is expected that your React web application will look exactly like the website that you have built so far both from the look and functionality point of view. The deliverables are mainly related to how you use Components and States in the application. Below are the minimum mandatory component structure your web application is required to have:

- Components: The component tree structure has been illustrated below in the figure. The main App Component shall have the TabList and Body components.
- State: The App component will have the activeTab field as a state which can be toggled on clicking on the tabs.
- The TabList Component will contain an array of Tab Component.
- The Body Component will dynamically load the Home, Images, Videos or Projects Components conditionally based on the activeTab.

These are the minimum requirements. You are allowed to add further compartmentalization depending upon the structure requirements of your website.

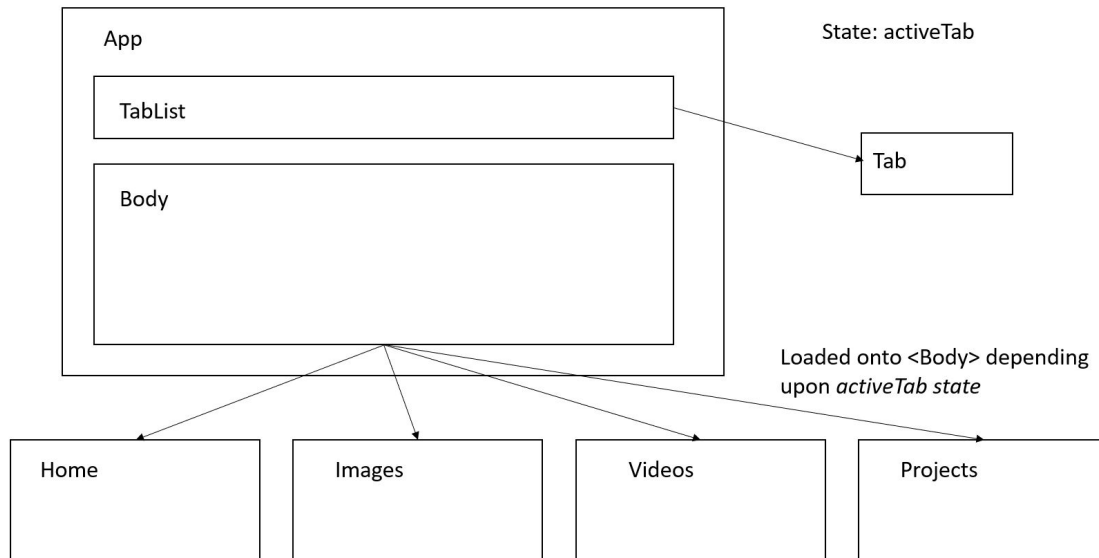


Figure 1: Component structure

3 Submission

Submit links to both your repo and your hosted website. Provide an illustration of the component structure of your website as shown in the figure above.

Please make sure you meet the deadline on both your repo, and on Gauchospace. Also if you are not in the US, please be aware of the time differences, the deadlines are set for PST.