

Week 7: Introduction And Instructions

In **Week 7: Working With React Components**, you'll focus on web components and routing. In your first exercise, you'll create simple Bootstrap web components, custom web components, and then convert them to React components. In the second exercise, you'll learn how to create a single-page application (SPA) and learn when to use a SPA versus a multi-page application. Finally, you'll bring it all together by completing an exercise where you'll create the routing on a page with a Bootstrap navigation bar.

A Note On Coding

Coding activities in this course are intended to be challenging.

You'll find instructions for each activity that'll point you in the right direction, but the instructions are not meant to be a step-by-step recipe to follow. Often in order to be successful, you must make logical leaps—analyze and synthesize information on your own and incorporate information that was discussed in the videos and/or included in prior activities. Coding can be complex; it is not unusual to have to try the activity several times before you get it right. That is the way people learn to code: They “try and try again.” But each time you try and fail, you learn some vital information that you can use to further refine your code.

These activities have been designed for you to apply the concepts you've learned thus far and replicate real-life scenarios that'll allow you to increasingly work independently.

If you've made several attempts and feel frustrated, you may access the solution set and compare it with your code. After viewing the solution set, attempt the activity again. If any part of the activity is still unclear, please bring your question to office hours and ask your Learning Facilitators for help. You can also post on the weekly discussion board and learn from your peers' experience. It is strongly recommend that you try the code before you access the solution set—the learning you gain from attempting the problem on your own will help you build your coding skills—this will be vital as you progress through the course.

Learning Outcomes

Course Learning Outcome Addressed

- Design and build UI components using React

By the end of this week, you will be able to:

1. Identify the differences between a web component and a React component
2. Convert web components into React components
3. Explain why you would use single-page or multi-page applications
4. Define routing
5. Explain linking in a single-page application
6. Identify the benefits of a single-page application
7. Leverage routing to allow navigation without refreshing the page
8. Build a navigation bar with Bootstrap and React
9. Practice communicating technical decisions you made

Activities

Key Activities

- Knowledge Check
 - 7.1: Single-Page Application
- Discussions
 - Single-Page vs. Multi-Page Applications
 - Share Your Improvements
- Coding Activities
 - Converting Web Components Into React Components
 - Same Page Routing
- Coding Assignments
 - Creating A Bootstrap Navigation Bar

Self-Study Activities

- Web Components And React C
- Routing And The Single-Page A