Week 6: Introduction And Instructions

In **Week 6: Tic-Tac-Toe Exercise With React,** you'll manage state across parent and child components. You'll also work through the component lifecycle, by mounting (creating) components on the DOM, updating them, and unmounting(deleting) them from the DOM so they're no longer displayed.

You'll apply these concepts in the creation of another game (of your choosing) in React, which you can share with your peers in the Parent And Child Components In A Game discussion. You will also have an opportunity to share your improvements to the Tic-Tac-Toe game with your peers at the end of the week. Be sure to contribute your code to a GitHub repository as you code along with the videos.

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 aren't 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's not unusual to have to try the activity several times before you get it right. That's the way people learn to code: they "try and try again" – each time you try and fail, you'll learn vital information that you can use to further refine your code.

These activities have been designed 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 Facilitator for help! You can also post on the weekly discussion board and learn from your peers' experience.   We 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'll be vital as you progress through the course.

Learning Outcomes

Course Learning Outcomes Addressed

- Build, test, and deploy a React application
- Explain key React concepts such as JSX and Hooks

- Design and build UI components using React

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

1. Define the React component lifecycle
2. Manage state globally at the application level
3. Manage state locally at the component level
4. Use React Hooks and methods
5. Describe how a parent component communicates with a child component
6. Identify parent/child components and their state
7. Mount and unmount components
8. Practice communicating technical decisions you made

Activities

Key Activities

- Knowledge Checks
  - 6.1: Parent And Child Components
  - 6.2: React Lifecycle Review
- Discussions
  - Parent And Child Components In A Game
  - Refactoring Your Game
- Coding Activities
  - Mounting And Unmounting Square Components
  - Parent And Child Re-render
- Coding Assignments
  - Improving The Tic-Tac-Toe Game

Self-Study Activities

- Tic-Tac-Toe Exercise