React Integration with Bootstrap

Estimated time needed: 5 minutes

Introduction

React is a JavaScript library used to build dynamic user interfaces. Bootstrap is a widely used front-end framework that provides ready-to-use CSS styles and components. Integrating React with Bootstrap will allow you to leverage the power of both technologies and create highly responsive and visually appealing web applications.

Objectives

After completing this lab, you will be able to:

- Explore how React can be integrated with Bootstrap
- Discuss the benefits of using React and Bootstrap together

Setting up React and Bootstrap

To begin integrating React with Bootstrap:

1. You must have a basic knowledge of both technologies. If you are wondering where to start, creating a new React project using tools like **Create React App** or your preferred setup is the logical first step.

    Note: There are various ways to set up a new React project. You can use the `create-react-app`, which is still active but will be deprecated in the near future. It is, therefore, recommended that you use tools like **Vite** for future development.

2. Set up your project.

3. Add Bootstrap to the React project. You can accomplish this by using one of the following methods:

    - **Method 1:** Copy and paste a Bootstrap link in the <head> section of your React app.

        ```
        1. 1
        2. 2
        3. 3
        1. <link rel="stylesheet" href="https://stackpath.bootstrapcdn.com/bootstrap/4.1.0/css/bootstrap.min.css"
        2. integrity="sha384-9gVQ4dYFwwWSjIDZnLEWnxCjeSWFphJiwGPXr1jddIhOegiu1FwO5qRGvFXOdJZ4"
        3. crossorigin="anonymous">
        ```
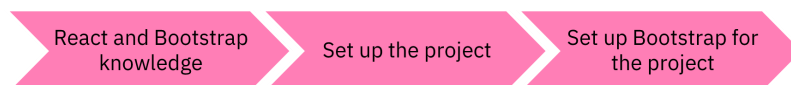   [Copied!]

    - **Method 2:** Add bootstrap to your React application using npm

        1. Run `npm install bootstrap`

        2. Then, in the index.js file or your react app's entry JavaScript file, import bootstrap.min.css. A sample code is displayed below.

            ```
            import 'bootstrap/dist/css/bootstrap.min.css';
            ```
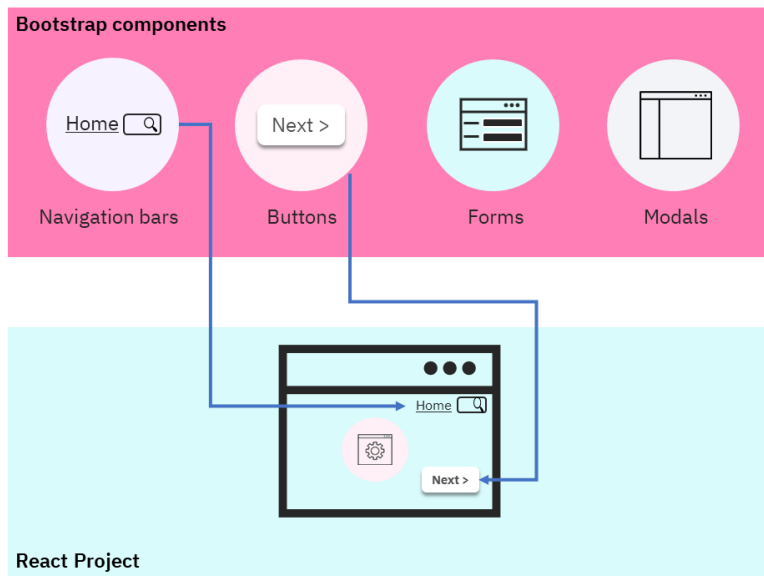
4. After setting up the project, you can proceed with setting up Bootstrap for the project by including its CSS and JavaScript files in the relevant project folders.

React and Bootstrap knowledge → Set up the project → Set up Bootstrap for the project

Benefits of Using React and Bootstrap Together

Consistent Responsive UIs with Ease

Bootstrap provides various pre-built components, such as navigation bars, buttons, forms, and modals. You can easily import any of the pre-built components into a React application and use them just like any other React component. This allows you to create a responsive and consistent UI quickly.
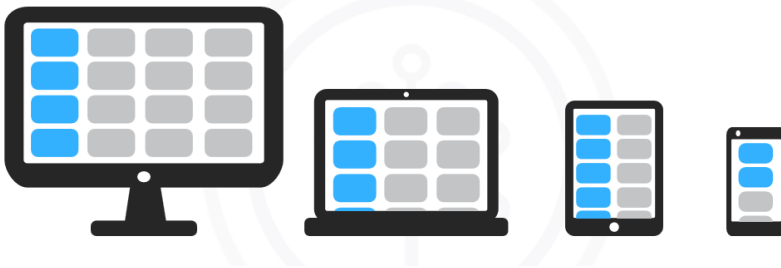
Blend Components Seamlessly

When using Bootstrap components in a React project, you might want to modify the appearance or behavior of one or more components based on project requirements. Bootstrap allows you to override its default styles by leveraging CSS classes or customizing the Sass variables. By overriding styles, you can ensure the Bootstrap components blend seamlessly with the rest of your application's design.

Flexible and Responsive Designs

Bootstrap provides a powerful grid system. The grid system allows you to create responsive layouts by dividing the page into rows and columns. Using React's component-based approach and Bootstrap's grid system, you can easily create flexible and responsive designs that adapt to different screen sizes.

Enhanced Component Functionality

In addition to CSS styles, Bootstrap provides JavaScript plugins to enhance the functionality of its components.

Note: When integrating React with Bootstrap, you may need to handle the JavaScript components differently since they rely on jQuery or other non-React libraries. To overcome this problem, you can either use third-party wrappers that wrap the original Bootstrap JavaScript plugins or find alternative React-specific libraries.

Conclusion

React-Bootstrap integration offers several benefits to web developers. Setting up Bootstrap for the project is the first step in the integration process. You can then leverage Bootstrap components and plugins to create flexible, responsive, and visually appealing frontends.

Author(s)

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Changelog

Date	Version	Changed by	Change Description
2023-08-27	0.1	Rama	Initial version created