

COMP 9783 Front-end Development

Lab-3-3 - React Component Lab. (4% of the course mark)

Name:

Student Number:

The React Component Lab is designed to provide an immersive, hands-on learning experience focused on mastering React components, the building blocks of React applications. Participants will explore functional components and learn best practices for creating reusable and efficient components.

Lab objectives:

1. Learn how to create functional-based components.
2. Use functional-based components to build reusable parts of a web app.

Create a react app:

On **VSCode**, open the **terminal** and type the following commands:

1. **create-react-app react-component-app** and **press enter**. This will create the files and folders required by React.
2. On the **src folder**, **delete** the following files:
 - a. App.css
 - b. App.test.js
 - c. index.css
 - d. logo.svg
 - e. reportWebVitals.js
 - f. setupTests.js
3. **Modify ./src/index.js** and **remove the following code** and **save the changes**:

- a. `import './index.css';`
 - b. `import reportWebVitals from './reportWebVitals';`
 - c. `// If you want to start measuring performance in your app, pass a function`
 - d. `// to log results (for example: reportWebVitals(console.log))`
 - e. `// or send to an analytics endpoint. Learn more: https://bit.ly/CRA-vitals`
 - f. `reportWebVitals();`
4. **Modify `./public/index.html` and update the title html code and save the changes:**
- a. `<title>react-component-app</title>`
5. This lab will use **bulma** as the **css frontend**. To install **bulma** type: **npm install bulma** and **press enter**.
6. Overwrite **App.js** with the following code and save the changes:

```
import "bulma/css/bulma.min.css";
import Header from "./components/Header";
import Content from "./components/Content";
import Footer from "./components/Footer";
```

```
function App() {
  return (
    <div>
      <Header></Header>
      <Content></Content>
      <Footer></Footer>
    </div>
  );
}
```

```
export default App;
```

7. Inside the **src** folder create a folder named: **components**.
8. Inside the **components folder**, create a file named: **Content.js** and add the following code below:

```
function Content() {  
  return (  
    <section className="hero is-primary">  
      <div className="hero-body">  
        <p className="title">Primary hero</p>  
        <p className="subtitle">Primary subtitle</p>  
        <p>  
          Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aenean  
          efficitur vel lacus vel accumsan. Aliquam ac finibus massa. Sed sed  
          hendrerit eros, in accumsan eros. Fusce nec lectus eu lectus tincidunt  
          ornare eget nec erat. Maecenas egestas faucibus hendrerit. Orci varius  
          natoque penatibus et magnis dis parturient montes, nascetur ridiculus  
          mus. Cras dui eros, viverra sed facilisis sit amet, vulputate  
          fringilla diam. Nullam maximus ex a velit vehicula maximus. Curabitur  
          molestie feugiat felis, a egestas neque venenatis at. Nunc mollis  
          metus nec sapien venenatis, ac aliquet sapien porttitor. Aliquam sit  
          amet mi nulla. Donec molestie aliquam luctus.  
        </p>  
      </div>  
    </section>  
  );  
}  
  
export default Content;
```

9. Inside the **components folder**, create a file named: **Footer.js** and add the following code below:

```
function Footer() {  
  return (  
    <footer className="footer has-background-dark has-text-light">  
      <div className="content has-text-centered">  
        <p className="is-size-5">Footer text...</p>  
      </div>  
    </footer>  
  );  
}
```

```
export default Footer;
```

10. Inside the **components folder**, create a file named: **Header.js** and add the following code below:

```
function Header() {  
  return (  
    <nav  
      className="navbar is-dark"  
      role="navigation"  
      aria-label="main navigation"  
    >  
      <div className="navbar-brand">  
        <a className="navbar-item is-size-1" href="#fake">  
          Header text...        </a>  
      </div>  
    </nav>  
  );  
}
```

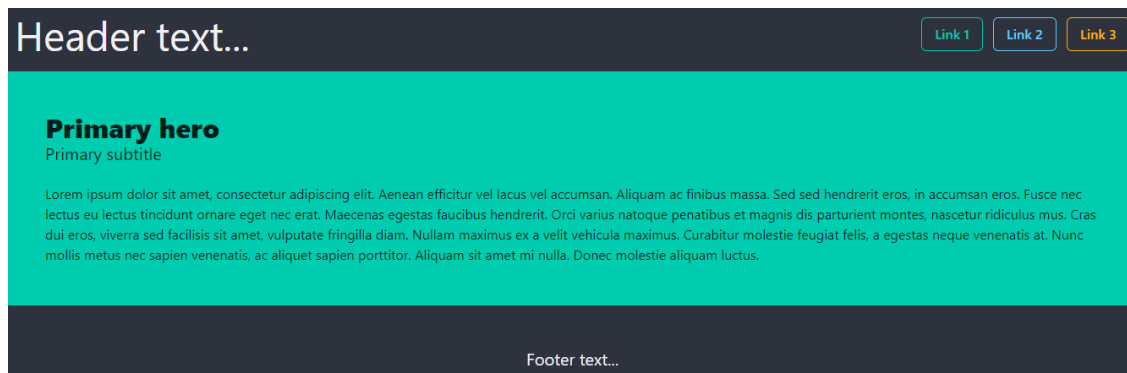
```
</a>
</div>

<div className="navbar-end">
  <div className="navbar-item">
    <div className="buttons">
      <a className="button is-primary is-outlined" href="#fake">
        Link 1
      </a>
      <a className="button is-info is-outlined" href="#fake">
        Link 2
      </a>
      <a className="button is-warning is-outlined" href="#fake">
        Link 3
      </a>
    </div>
  </div>
</div>
</nav>

);
}
```

```
export default Header;
```

11. Open the **terminal**, ensure that you are on the **root folder of the app**, type **npm run start** and **press enter**. This should open a browser session and display the web app (see **below**). Make sure that your app is working before proceeding to the next step. Leave the app running.



12. Use: <https://bulma.io> as guide on making changes to the html codes of the following files: Content.js, Footer.js and Header.js. Save the changes when finished.
13. Navigate to <http://localhost:3000> and take a screenshot of the changes made.

Submission:

1. Use the html template: **index.html** and **write HTML codes for each screenshot:**
 - a. Write a title and short description.
 - b. Display the screenshot.

Note: Feel free to use any component from a CSS framework of your choice.

2. Create a new folder named **html** and copy all the **HTML**, **CSS** and **PNG** files used in the previous step.
3. Create a **zip file** of the **html folder**.
4. Submit the **zip file** to **GBC - D2L**.