**Exercise07\_02\_01 – Step 1**

src/index.js

import React from 'react';

import ReactDOM from 'react-dom';

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src/index.js

ReactDOM.render(

React.createElement(...),

document.getElementById('root')

);

------------------------------------

views/index.ejs

<%- include('header') -%>

<div id="root"><%- content %></div>

<%- include('footer') -%>

------------------------------------

src/index.js

ReactDOM.render(

React.createElement('h2', null, 'Hello React!'),

document.getElementById('root')

);

------------------------------------

Terminal Exercise07\_01\_01

npm run dev

------------------------------------

views/footer.ejs

<script src="/bundle.js" charset="utf-8"></script>

<body>

------------------------------------

Terminal Exercise07\_01\_01

npm start

------------------------------------

Reactjs.com Console

React.createElement('h2', null, 'Hello React!')

src/index.js

ReactDOM.render(

<h2>Hello React with JSX!</h2>,

document.getElementById('root')

);

------------------------------------

src/index.js

<h2>Hello React with JSX and a JS Expression:   
 {Math.random()}</h2>,

------------------------------------

src/index.js

const color = (Math.random() > 0.5) ? 'green' : 'red';

ReactDOM.render(

<h2 style={{color: color}}>

Hello React with JSX!

</h2>,

document.getElementById('root')

);

------------------------------------

src/index.js

ReactDOM.render(

<h2 style = {{color: color}} className='text-center'>

**Exercise07\_02\_01 – Step 2**

src/index.js

const App = () => {

return (

<h2 className="text-center">

Hello React Components!

</h2>

);

};

------------------------------------

src/index.js

ReactDOM.render(

<App />,

document.getElementById('root')

);

------------------------------------

src/index.js

const App = (props) => {

return (

<h2 className="text-center">

{props.headerMessage}

</h2>

);

};

------------------------------------

src/index.js

ReactDOM.render(

<App headerMessage="Hello props!" />,

document.getElementById('root')

);

------------------------------------

Terminal Exercise07\_01\_01

npm install prop-types -save

------------------------------------

src/index.js

import ReactDOM from 'react-dom';

import PropTypes from 'prop-types';

src/index.js

App.propTypes = {

headerMessage: PropTypes.string.isRequired

};

------------------------------------

src/index.js

App.defaultProps = {

headerMessage: 'Default prop'

};

------------------------------------

src/index.js

App.defaultProps = {

headerMessage: 'Default prop'

};

**Exercise07\_02\_01 – Step 3**

src/index.js

const App = (props) => {

return (

<h2 className="text-center">

{props.headerMessage}

</h2>

<div>

...

</div>

);

};

------------------------------------

src/index.js

<div>

<h2 className="text-center">

{props.headerMessage}

</h2>

<div>

...

</div>

</div>

------------------------------------

src/index.js

const Header = () => {

return (

<h2 className="text-center">

props.headerMessage

</h2>

);

};

------------------------------------

src/index.js

const Header = ({ message }) => {

return (

<h2 className="text-center">

{ message }

</h2>

);

};

src/index.js

const App = () => {

return (

<div>

<Header message="Naming Contests" />

<div>

...

</div>

</div>

);

};

------------------------------------

src/index.js

Header.propTypes = {

message: PropTypes.string

};

------------------------------------

src/index.js

const App = () => {

return (

<div className="App">

**Exercise07\_02\_01 – Step 4**

src/components/Header.js

import React from 'react';

import ReactDOM from 'react-dom';

import PropTypes from 'prop-types';

const Header = ({ message }) => {

return (

<h2 className="text-center">

{message}

</h2>

);

};

Header.propTypes = {

message: PropTypes.string.isRequired

};

export default Header;

------------------------------------

src/components/App.js

import React from 'react';

import ReactDOM from 'react-dom';

import Header from './Header'

const App = () => {

return (

<div className="App">

<Header message="Naming Contests" />

<div>

...

</div>

</div>

);

};

export default App;

------------------------------------

src/index.js

import React from 'react';

import ReactDOM from 'react-dom';

import App from './components/app';

**Exercise07\_02\_01 – Step 5**

App.js

class App extends React.Component {

render() {

return (

<div className="App">

<Header message="Naming Contests" />

<div>

. . .

</div>

</div>

);

}

}

------------------------------------

App.js

class App extends React.Component {

constructor(props) {

super(props);

this.state = { test: 42 };

}

render() {

return (

<div className="App">

<Header message="Naming Contests" />

<div>

{this.state.test}

</div>

</div>

);

}

}

App.js

class App extends React.Component {

state = { test: 37 };

render() {

return (

<div className="App">

<Header message="Naming Contests" />

<div>

{this.state.test}

</div>

</div>

);

}

------------------------------------

App.js

class App extends React.Component {

state = {

pageHeader: 'Naming Contests'

};

render() {

return (

<div className="App">

<Header message="Naming Contests" />

<div>

{this.state.pageHeader}

</div>

</div>

);

}

------------------------------------

Developer Tools Console

$r

$r.state

$r.setState({ pageHeader: ‘Test . . .’ })

**Exercise07\_02\_01 – Step 6**

src/index.js

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src/index.js

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