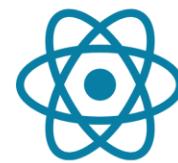
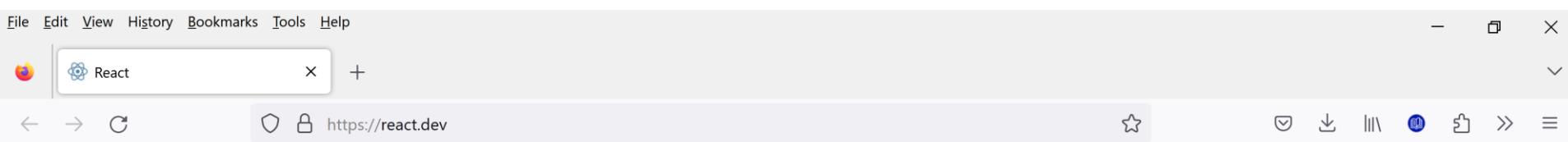


React Tutorial_1

Dr. Atef Bader

React



React

The library for web and native user interfaces

[Learn React](#)

[API Reference](#)

React

File Edit View History Bookmarks Tools Help

Quick Start – React × +

https://react.dev/learn

Search Ctrl K Learn Reference Community Blog

GET STARTED

Quick Start Tutorial: Tic-Tac-Toe Thinking in React Installation

LEARN REACT

Describing the UI Adding Interactivity Managing State Escape Hatches

Is this page useful? ⌂ ⓘ

Quick Start

Welcome to the React documentation! This page will give you an introduction to the 80% of React concepts that you will use on a daily basis.

You will learn

- How to create and nest components
- How to add markup and styles
- How to display data
- How to render conditions and lists
- How to respond to events and update the screen
- How to share data between components

Creating and nesting components

React

File Edit View History Bookmarks Tools Help

Start a New React Project – React

https://react.dev/learn/start-a-new-react-project

Search

Ctrl K Learn Reference Community Blog

GET STARTED

Quick Start >

Installation < ▾

Start a New React Project

Add React to an Existing Project

Editor Setup

React Developer Tools

LEARN REACT

Describing the UI >

Adding Interactivity >

Is this page useful?  

Start a New React Project

If you want to build a new app or a new website fully with React, we recommend picking one of the React-powered frameworks popular in the community. Frameworks provide features that most apps and sites eventually need, including routing, data fetching, and generating HTML.

 **Note**

You need to install [Node.js](#) for local development. You can also choose to use Node.js in production, but you don't have to. Many React frameworks support export to a static HTML/CSS/JS folder.

Production-grade React frameworks

React

File Edit View History Bookmarks Tools Help

Start a New React Project – ReactX

https://react.dev/learn/start-a-new-react-project

Search

Ctrl K Learn Reference Community Blog

GET STARTED

Quick Start >

Installation ▾

Start a New React Project

Add React to an Existing Project

Editor Setup

React Developer Tools

LEARN REACT

Describing the UI >

Adding Interactivity >

Is this page useful?  

Production-grade React frameworks

Next.js

Next.js is a full-stack React framework. It's versatile and lets you create React apps of any size—from a mostly static blog to a complex dynamic application. To create a new Next.js project, run in your terminal:

```
npx create-next-app
```

If you're new to Next.js, check out the [Next.js tutorial](#).

Next.js is maintained by [Vercel](#). You can [deploy a Next.js app](#) to any Node.js or serverless hosting, or to your own server. [Fully static Next.js apps](#) can be deployed to any static hosting.

Remix

React

File Edit View History Bookmarks Tools Help

npx | npm Docs

https://docs.npmjs.com/cli/v7/commands/npx

npm Docs Search npm Docs npmjs.com Status Support

About npm

Getting started

Packages and modules

Integrations

Organizations

Policies

Threats and Mitigations

npm CLI

CLI Commands

npm

npx

Run a command from a local or remote npm package

Select CLI Version:

Version 7.24.2 (Legacy Release) ▾

Synopsis

```
npm exec -- <pkg>[@<version>] [args...]
npm exec --package=<pkg>[@<version>] -- <cmd> [args...]
npm exec -c '<cmd> [args...]'
npm exec --package=foo -c '<cmd> [args...]'
```

```
npx <pkg>[@<specifier>] [args...]
npx -p <pkg>[@<specifier>] <cmd> [args...]
npx -c '<cmd> [args...]'
npx -p <pkg>[@<specifier>] -c '<cmd> [args...]'
```

Table of contents

Synopsis

Description

npx vs npm exec

Examples

Compatibility with Older npx Versions

See Also

React

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | UX 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#c

67%

Topics Start Learning

hidden, so you can focus on developing in React.

With that in mind, let's get this project started.

In your terminal, navigate to your `react-book` projects folder.

The `create-react-app` command takes one argument, the name of your project. Create a new React application called `ottergram` with this command:

[Click here to view code image](#)

```
npx create-react-app ottergram
```

If you see a prompt asking you to confirm that you want to install `create-react-app`, press Y to continue.

Creating a new React application can take a few minutes. When Create React App has finished, the terminal output will show a list of dependencies that have been installed and the available commands you can run in your new application ([Figure 1.2, “Creating a new React app”](#)).

Figure 1.2 Creating a new React app

◀ The Necessary Tools 1. Create React App 2. Components ▶

10h 37m remaining

npx Highlight All Match Case Match Diacritics Whole Words 1 of 9 matches

Create React App

```
C:\Windows\System32\cmd.exe + ^ 
C:\bader\Projects\React\Tutorial_1\react-book>npx create-react-app ottergram
The directory ottergram contains files that could conflict:
node_modules/
package-lock.json
package.json
public/
src/

Either try using a new directory name, or remove the files listed above.

C:\bader\Projects\React\Tutorial_1\react-book>npx create-react-app ottergram
Creating a new React app in C:\bader\Projects\React\Tutorial_1\react-book\ottergram.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

added 1458 packages in 44s
241 packages are looking for funding
  run 'npm fund' for details
Initialized a git repository.

Installing template dependencies using npm...
added 69 packages, and changed 1 package in 6s
245 packages are looking for funding
  run 'npm fund' for details
Removing template package using npm...

removed 1 package, and audited 1527 packages in 4s
245 packages are looking for funding
  run 'npm fund' for details
6 high severity vulnerabilities
```

Use npx to create
React App

Create React App

```
C:\Windows\System32\cmd + 
npm audit fix --force
Run 'npm audit' for details.

Created git commit.

Success! Created ottergram at C:\bader\Projects\React\Tutorial_1\react-book\ottergram
Inside that directory, you can run several commands:

npm start
  Starts the development server.

npm run build
  Bundles the app into static files for production.

npm test
  Starts the test runner.

npm run eject
  Removes this tool and copies build dependencies, configuration files
  and scripts into the app directory. If you do this, you can't go back!

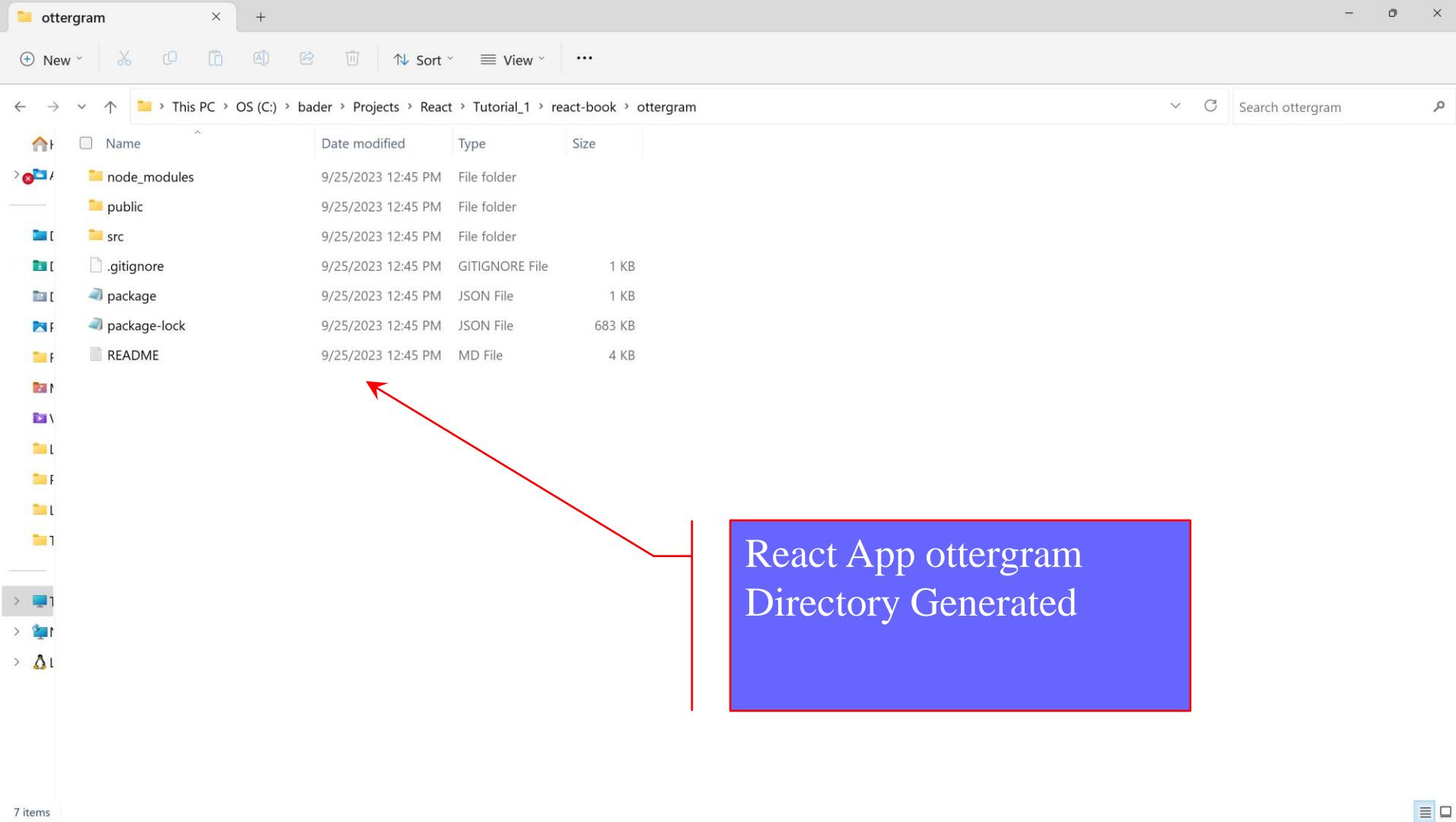
We suggest that you begin by typing:

cd ottergram
npm start

Happy hacking!
C:\bader\Projects\React\Tutorial_1\react-book>
```

React App Created

Create React App



Create React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | 1 X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#cd ottergram

67% 71% 72% 73% 74% 75% 76% 77% 78% 79% 80% 81% 82% 83% 84% 85% 86% 87% 88% 89% 90% 91% 92% 93% 94% 95% 96% 97% 98% 99% 100%

Topics Start Learning Search 50,000+ courses, events, titles, and more

Create React App set up your React application in a subdirectory named `ottergram`. Change to this subdirectory in the terminal:

```
cd ottergram
```

Create React App ships with its own development server to build and serve your application for you. The development server runs locally with Node.js, installed in [The Necessary Tools](#).

Although you have not added any content to Ottergram, it is useful to start the development server right away to verify that the initial setup is working as expected. To start the server, run this command:

```
npm start
```

This command will build your app and start a server so you can access it locally. It will also open a new browser window and navigate to <http://localhost:3000>. (If you see a prompt asking you to allow the terminal to open a browser window, click `OK`.)

Go to directory `ottergram`

Startup the development server

Browser will open webpage on port 3000

The Necessary Tools

1. Create React App

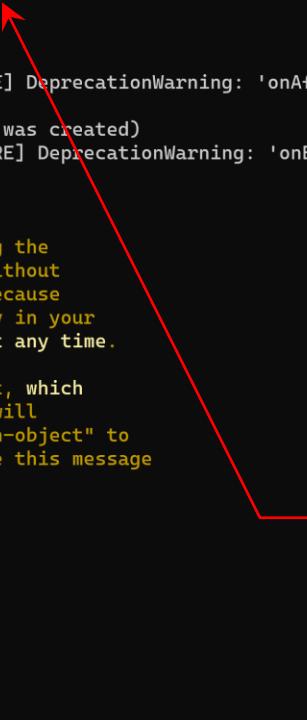
2. Components

npx

Highlight All Match Case Match Diacritics Whole Words 1 of 9 matches

Create React App

```
C:\bader\Projects\React\Tutorial_1\react-book\ottergram>npm start  
> ottergram@0.1.0 start  
> react-scripts start  
  
(node:25832) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.  
(Use 'node --trace-deprecation ...' to show where the warning was created)  
(node:25832) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.  
Starting the development server...  
  
One of your dependencies, babel-preset-react-app, is importing the  
"@babel/plugin-proposal-private-property-in-object" package without  
declaring it in its dependencies. This is currently working because  
"@babel/plugin-proposal-private-property-in-object" is already in your  
node_modules folder for unrelated reasons, but it may break at any time.  
  
babel-preset-react-app is part of the create-react-app project, which  
is not maintained anymore. It is thus unlikely that this bug will  
ever be fixed. Add "@babel/plugin-proposal-private-property-in-object" to  
your devDependencies to work around this error. This will make this message  
go away.  
Compiled successfully!  
  
You can now view ottergram in the browser.  
  
Local:          http://localhost:3000  
On Your Network: http://192.168.0.222:3000  
  
Note that the development build is not optimized.  
To create a production build, use npm run build.  
  
webpack compiled successfully
```

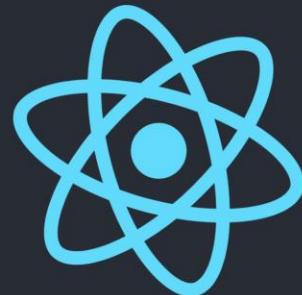


npm start

Create React App



Browser webpage opened
on port 3000



Edit `src/App.js` and save to reload.

[Learn React](#)

Ottergram React App

- Lets see the basic structure of the Ottergram React App
- We will inspect the directory structure and source code files

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGI X Chapter 4: Information Design | X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#c1

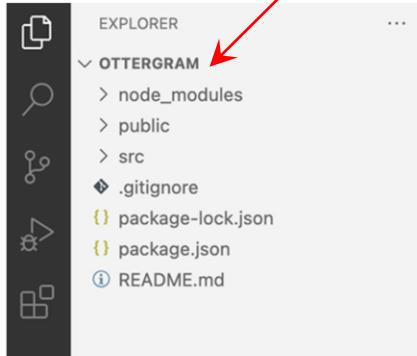
67% Search 50,000+ courses, events, titles, and more What's New

O'REILLY Topics Start Learning

Take a look at the icons on the left side of the Visual Studio Code window. The top icon toggles the explorer pane: It shows (or hides) the files in your project.

1.7. "Initial files and folders generated by Create React App".

Figure 1.7. Initial files and folders generated by Create React App



If you do not see a list of files in the left pane, click the explorer icon so you can

Directory Structure

The Necessary Tools 1. Create React App 2. Components

10h 37m remaining

sol Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | 1 X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X +

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#c

67%

O'REILLY Topics Start Learning Search 50,000+ courses, events, titles, and more What's New

`package.json` acts as your Node.js project's manifest. It contains metadata about your project, such as the name, version number, and description. It also contains important configuration details, including linting instructions and a list of dependencies that are targeted for support.

In addition, `package.json` houses the needed dependencies for your application. The package manager, npm, installs these dependencies. At this point, npm has installed several dependencies, including `react`, `react-dom`, and `react-scripts`, plus others needed for running tests.

Close `package.json` and click `package-lock.json` to open it:

[Click here to view code image](#)

```
{  
  "name": "ottergram",  
  "version": "0.1.0",  
  "lockfileVersion": 2,  
  "requires": true,  
  "dependencies": {  
    "react": "16.8.4",  
    "react-dom": "16.8.4",  
    "react-scripts": "3.4.1",  
    "prop-types": "15.7.2",  
    "react-test-renderer": "16.8.4"  
  }  
}
```

The Necessary Tools 1. Create React App 2. Components

10h 37m remaining

sol Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | L X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X +

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#c

Topics Start Learning Search 50,000+ courses, events, titles, and more What's New

...
"react-dom": "^18.1.0",
"react-scripts": "5.0.1",
"web-vitals": "^2.1.4"
},
...
},
"dependencies": {
"": {
"version": "2.2.0",
"resolved": "https://registry.npmjs.org/[...]",
"integrity": "sha512-[...]",
"requires": {
...
}
},
...
}
}

Package-lock.json has specific version numbers for dependencies

The package-lock.json file contains the specific version numbers of every dependency that npm installed.

◀ The Necessary Tools 1. Create React App 2. Components ▶

10h 37m remaining

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGI Chapter 4: Information Design | 1. Designing for People | Design 1. Create

Topics Start Learning Search 50,000+ courses, events, titles, and more

`lock.json` contains the exact version installed. This is important for continuous delivery. `package-lock.json` ensures that remote deploys to a server, install the same version that was used for testing.

Note that if you use version control, you should always commit `package-lock.json` along with `package.json`.

In Visual Studio Code's left sidebar, click the > icon next to the `node_modules` directory to expose its contents. This directory contains a cache of all installed dependencies. If you compare it to the specifications in `package-lock.json`, you will find that they match exactly.

The `node_modules` directory is already large and will grow each time you add a package. Because of this, developers usually choose not to commit it into version control. You can rebuild it by running the command `npm install`, which uses `package.json` and `package-lock.json` to install the exact package versions needed.

Go ahead and close the `node_modules` directory; you will not be working with its contents.

1. Create React App

2. Components

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

node-modules directory has a cache of installed dependencies

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | 1. Designing for People | Design X 1. Create

contents.

public directory

Now, click the > icon next to the `public` directory to expose its contents. `public` is the root folder of the React application and contains static files that are served to the browser ([Figure 1.8, “public directory explorer”](#)).

Figure 1.8. `public` directory explorer

The screenshot shows a file explorer window titled "EXPLORER". The tree view shows a project structure under "OTTERGRAM": "node_modules", "public", and ".gitignore". The "public" directory is expanded, revealing files: "favicon.ico", "index.html", "logo192.png", "logo512.png", "manifest.json", and "robots.txt". A red arrow points from the text "Now, click the > icon next to the public directory to expose its contents." to the expand icon (a right-pointing triangle) next to the "public" entry in the tree view.

Public directory is the root folder for React App

Contains files that are rendered in the Browser

The Necessary Tools 10h 37m remaining

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

Index.html has the root node that React will look for to render React code

root node

For now, focus on `index.html`, which is the only HTML file your app contains. Click this file to open it in your code editor.

The markup includes the node `<div id='root'></div>` in the body. React will look for this HTML node and render all the React code in it.

Also, this file does not contain any script tags, which means it does not load any external JavaScript files. We mentioned earlier that `package.json` contains a dependency called `react-scripts`. This dependency includes all scripts and configuration needed to get your React application up and running.

src directory

The `src` directory contains the example React app and is where you will spend most of your time in development. Most of the files in this folder are sample files to get you started. Expose the contents of the directory and take a look ([Figure 1.9, “src directory explorer”](#)).

[The Necessary Tools](#) [1. Create React App](#) [2. Components](#)

10h 37m remaining

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | X 1. Designing for People | Design X 1. Create

← → ↗ https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml

O'REILLY Topics Start Learning Search 50,000+ courses, events, titles, and more What's New

src directory

The `src` directory contains the example React app and is where you will spend most of your time in development. Most of the files in this folder are sample files to get you started. Expose the contents of the directory and take a look ([Figure 1.9, “src directory explorer”](#)).

Figure 1.9. `src` directory explorer

EXPLORER

OTTERGRAM

- > node_modules
- > public
- < src
 - # App.css
 - JS App.js
 - JS App.test.js
 - # index.css
 - JS index.js
 - logo.svg

1. Create React App

◀ The Necessary Tools 2. Components ▶

10h 37m remaining

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Src directory contains the source code for the React App

Ottergram React App

The screenshot shows a browser window displaying a React programming guide. Several annotations with red arrows point from specific text or code snippets to callout boxes with explanatory text.

- An annotation points from the text "index.js is the main entry point" to the URL bar which shows "https://learning.oreilly.com/library/view/react-programming-the/978013790177/ch01xhtml".
- An annotation points from the text "index.js has React root element created for root node in index.html" to the code snippet "const root = ReactDOM.createRoot(document.getElementById('root'))".
- An annotation points from the text "React root element" to the code snippet "const root = ReactDOM.createRoot(document.getElementById('root'))".
- An annotation points from the text "React code is rendered to the root element" to the code snippet "root.render()".
- An annotation points from the text "Click here to view code image" to the code snippet "const root = ReactDOM.createRoot(document.getElementById('root'))".
- An annotation points from the text "Click here to view code image" to the code snippet "root.render()".

Annotations:

- index.js is the main entry point
- index.js has React root element created for root node in index.html
- React root element
- React code is rendered to the root element

Code snippets:

```
const root = ReactDOM.createRoot(document.getElementById('root'))  
root.render(  
  <React.StrictMode>  
    <App />  
  </React.StrictMode>
```

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | L X 1. Designing for People | Design X 1. Create

← → ⌂ https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.html

O'REILLY Topics Start Learning Search 50,000+ courses, events, titles, and more What's New

Customizing Your App

Now that you have seen some of the initial app setup, you are ready to start modifying Ottergram and making it your own.

Find and open the `src/App.js` file. It defines a function called `App`. Take a look at the function's `return` statement:

[Click here to view code image](#)

```
return (
  <div className="App">
    <header className="App-header">
      <img src={logo} className="App-logo" alt="logo" />
      <p>
        Edit <code>src/App.js</code> and save to reload.
      </p>
      <a
        className="App-link"
        href="https://reactjs.org"
        target="_blank"
        rel="noopener noreferrer">
        >
      </a>
    </header>
  </div>
)
```

1. Create React App

2. Components ▾

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Modify App.js for your application

23

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | 1 X 1. Designing for People | Design X 1. Create

← → ⌂ https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xht

O'REILLY Topics Start Learning Search 50,000+ courses, events, titles, and more

one of the `import` statements) and add a simple header.

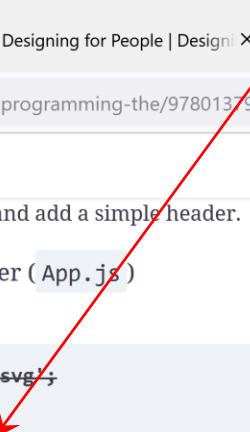
Example 1.1. Adding a header (`App.js`)

[Click here to view code image](#)

```
import logo from './logo.svg';
import './App.css';

function App() {
  return (
    <div className="App">
      <div>
        <header className="App-header">
          <img src={logo} className="App-logo" alt="logo" />
          <p>
            Edit <code>src/App.js</code> and save to reload.
          </p>
          <a
            className="App-link"
            href="https://reactjs.org"
            target="_blank"
          >
```

Modify App.js for your application



1. Create React App

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | Design X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#

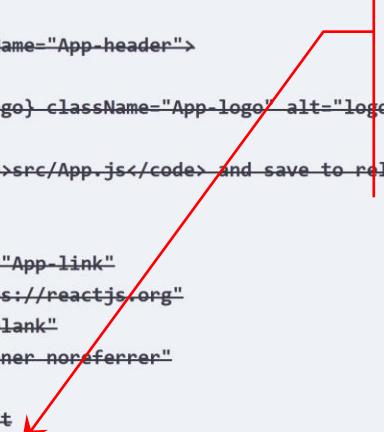
67%

O'REILLY Topics Start Learning

What's New

```
function App() {
  return (
    <div className="App">
      <div>
        <header className="App-header">
          <img src={logo} className="App-logo" alt="logo" />
          <p>
            Edit <code>src/App.js</code> and save to reload
          </p>
          <a
            className="App-link"
            href="https://reactjs.org"
            target="_blank"
            rel="noopener noreferrer"
          >
            Learn React
          </a>
        </header>
        <h1>Ottergram</h1>
      </div>
    </div>
  )
}
```

Modify App.js for your application



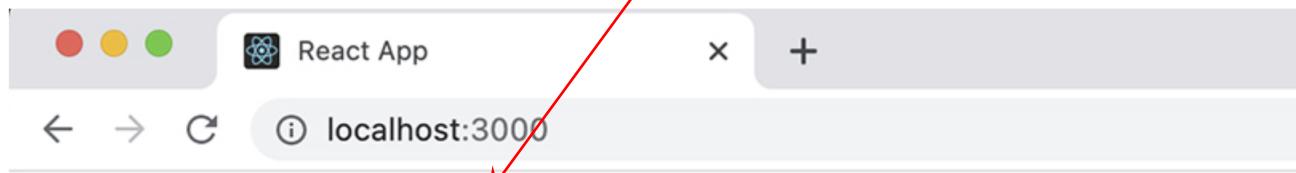
The Necessary Tools 1. Create React App 2. Components

10h 37m remaining

sol 1 of 8 matches

Ottergram React App

Incremental development and run



Ottergram

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | L X 1. Designing for People | Design X . Create

← → ⌂ https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.html

O'REILLY Topics Start Learning Search 50,000+ courses, events, titles, and more

Modify index.html for Title

and save the file.

Example 1.2. Changing the app title (index.html)

[Click here to view code image](#)

```
<!DOCTYPE html>
<html lang="en">
  <head>
    ...
    <title>React App</title>
    <title>Ottergram</title>
  </head>
  ...

```

Now the tab's title matches your header ([Figure 1.11, “Viewing the new title in the browser”](#)). (If it does not, manually refresh the page in your browser. Sometimes changes to files in the `public` directory do not propagate automatically.)

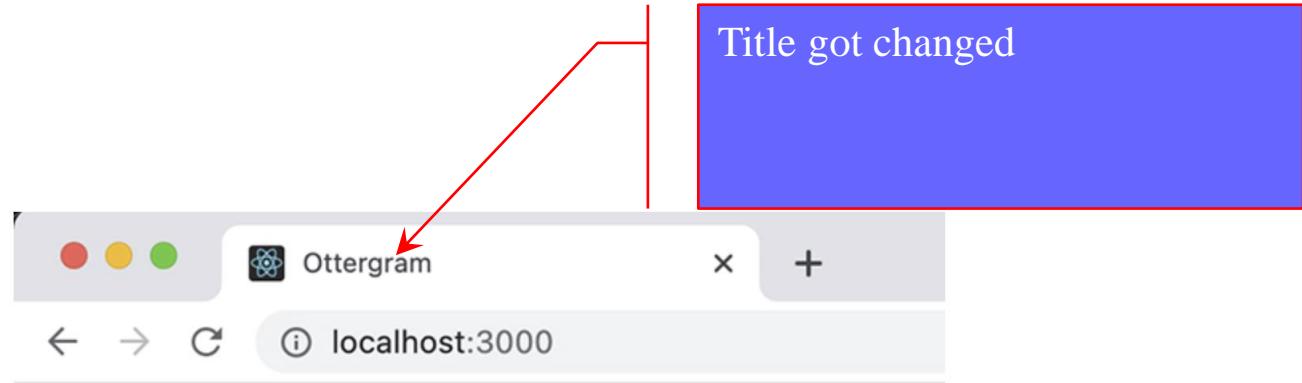
Figure 1.11. Viewing the new title in the browser

The Necessary Tools 10h 37m remaining

1. Create React App 2. Components

sol Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App



Ottergram

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGI X Chapter 4: Information Design | UX 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X +

← → ↕ https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.html

O'REILLY Topics Start Learning Search 50,000+ courses, events, titles, and more

Example 1.3. Adding posts (App.js)
[Click here to view code image](#)

```
import './App.css';
import Barry from './otters/otter1.jpg';
import Robin from './otters/otter2.jpg';
import Maurice from './otters/otter3.jpg';
import Lesley from './otters/otter4.jpg';
import Barbara from './otters/otter5.jpg';

function App() {
  return (
    <div>
      <header>
        <h1>Ottergram</h1>
      </header>
      <ul>
        <li>
          <button>
            <img src={Barry} alt='Barry' />
            <p>Barry</p>
          </button>
        </li>
      </ul>
    </div>
  );
}

export default App;
```

Add Otter images to App.js

The Necessary Tools 1. Create React App 2. Components ▾

10h 37m remaining

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

← → C https://learning.oreilly.com/library/view/react-programming-the/978013790177/ch01.html

Search 50,000+ courses, events, titles, and more

O'REILLY Topics Start Learning

CSS for your app is in App.css

Styles

While those otters are cute, the Ottergram app is pretty plain. Next, you will add styles to make your app as stylish as an otter.

Stylesheets are imported just like images and other files. Go back to `App.js`. The file already has an import for `App.css` at the top:

```
import './App.css';
```

Open `src/App.css`. It contains default style rules that Create React App added. You do not need these rules anymore, since you removed the default code that they applied to.

For simplicity, instead of editing `App.css` directly, you will replace it with a stylesheet provided in your downloaded resources file. In your file explorer, replace `src/App.css` with the `ottergram-resources/App.css` file from your downloaded resources file.

After replacing `App.css`, switch back to the browser. Most of the new styles are not being applied, even if you reload the page. (The background color is an exception.)

sol

Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

https://learning.oreilly.com/library/view/react-programming-the/9780137901777/ch01.xhtml#c

Topics Start Learning Search 50,000+ courses, events, titles, and more

Add className to elements in App.js

served word in JavaScript, React uses the attribute `className` to apply styles to elements.

Add `className`s to the elements in `App.js` to match the CSS selectors in the stylesheet:

Example 1.4. Adding `className` attributes (`App.js`)
[Click here to view code image](#)

```
...  
function App() {  
  return (  
    <div>  
      <header>  
        <header className='header-component'>  
          <h1>Ottergram</h1>  
        </header>  
        <ul>  
          <ul className='post-list'>  
            <li>  
              <li className='post-component'>
```

The Necessary Tools 1. Create React App 2. Components

10h 37m remaining

sol Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Ottergram React App

File Edit View History Bookmarks Tools Help

O'Reilly Library: USABILITY ENGL X Chapter 4: Information Design | X 1. Designing for People | Design X 1. Create React App | React Prog X The Necessary Tools | React Prog X

← → ⌂ https://learning.oreilly.com/library/view/react-programming-the/9780137001777/ch01.html Search 50,000+ courses, events, titles, and more

O'REILLY Topics Start Learning

npx will download missing packages and run the binaries

For the More Curious: npx

npx is a tool for executing npm package binaries. It starts with binaries within the local project and \$PATH. If it does not find the package there, it will download a temporary copy of the latest version and execute the binary from that download.

Without npx, you would have needed several commands to create Ottergram using Create React App:

[Click here to view code image](#)

```
npm install --global create-react-app
create-react-app ottergram
npm uninstall --global create-react-app
```

With npx, you needed only one line:

[Click here to view code image](#)

```
npx create-react-app ottergram
```

The Necessary Tools 1. Create React App 2. Components

10h 37m remaining

sol Highlight All Match Case Match Diacritics Whole Words 1 of 8 matches

Create React App

```
Windows PowerShell x + v

C:\bader\Projects\React\Tutorial_1\react-book\01-create-react-app>npm start

> ottergram@0.1.0 start
> react-scripts start

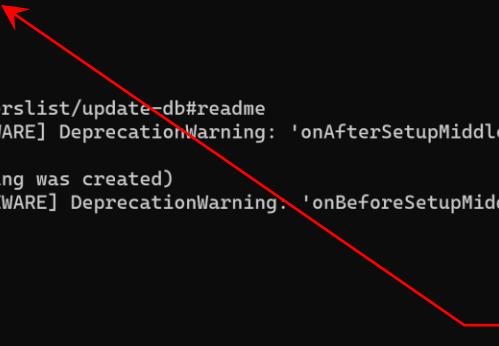
Browserslist: caniuse-lite is outdated. Please run:
  npx update-browserslist-db@latest
  Why you should do it regularly: https://github.com/browserslist/update-db#readme
(node:28436) [DEP_WEBPACK_DEV_SERVER_ON_AFTER_SETUP_MIDDLEWARE] DeprecationWarning: 'onAfterSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
(Use 'node --trace-deprecation ...' to show where the warning was created)
(node:28436) [DEP_WEBPACK_DEV_SERVER_ON_BEFORE_SETUP_MIDDLEWARE] DeprecationWarning: 'onBeforeSetupMiddleware' option is deprecated. Please use the 'setupMiddlewares' option.
Starting the development server...
Compiled successfully!

You can now view ottergram in the browser.

  Local:          http://localhost:3000
  On Your Network: http://192.168.0.222:3000

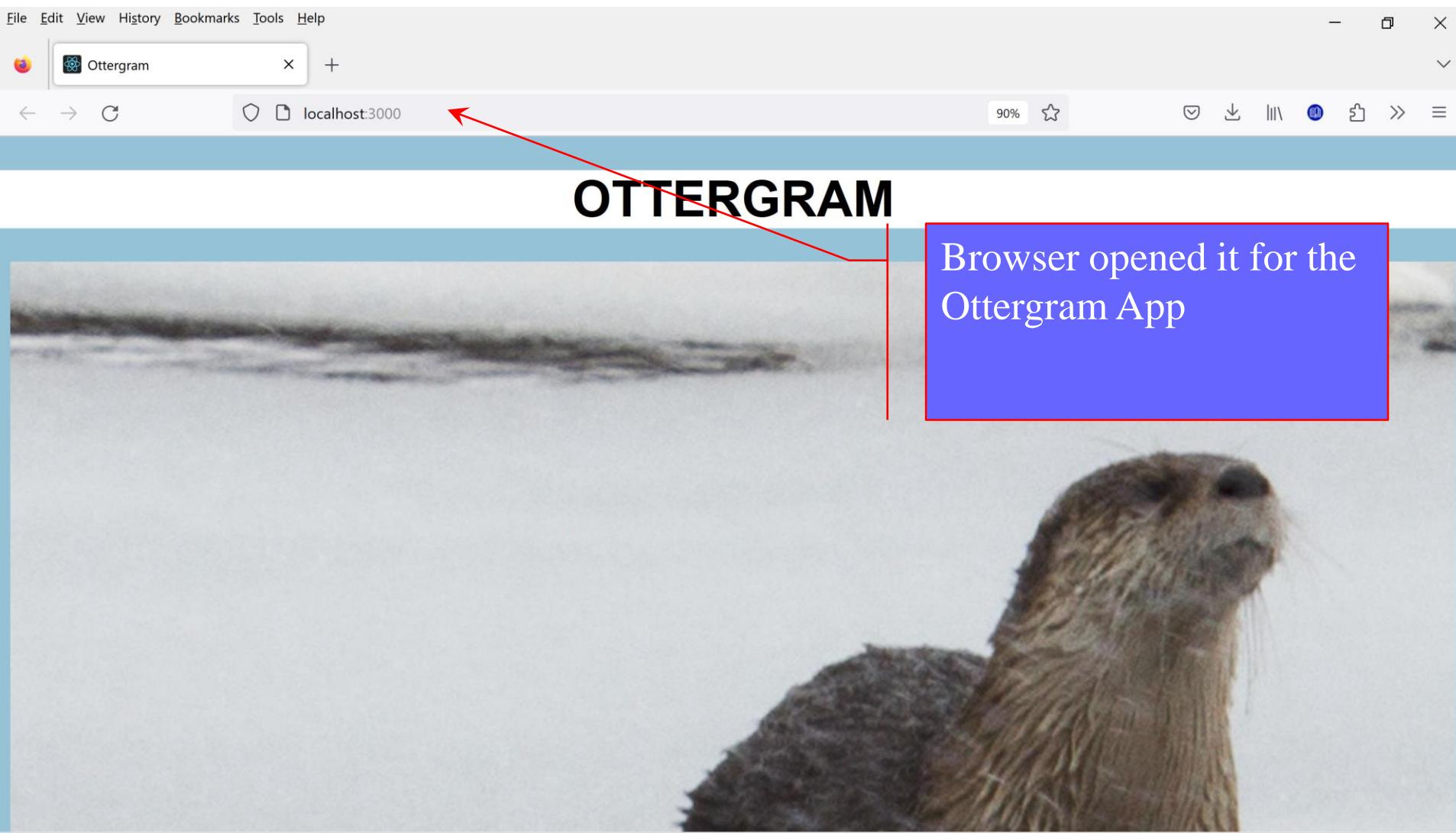
Note that the development build is not optimized.
To create a production build, use npm run build.

webpack compiled successfully
```



Startup the react app solution that comes with the textbook

Create React App



References

- Klingman, L. 2023. React Programming: The Big Nerd Ranch Guide. Indianapolis, IN: Pearson Technology Group. [ISBN: 978-0137901692]