

# 0x01. React intro

Front-end JavaScript ES6 React



Weight: 1

Projects(/projects/current)



Project over - took place from Jul 23, 2024 6:00 AM to Jul 25, 2024 6:00 AM



An auto review will automatically take place (to\_review)



Concepts Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

For this project, we expect you to look at this concept:



- React (/concepts/547)Curriculums(/dashboards/my\_curriculums)



Concepts(/concepts)

## IT DOESN'T MATTER WHERE YOU ARE



Conference rooms(/dashboards/my\_conference\_rooms)



Servers(/servers)



Sandboxes(/user\_containers/current)



Tools(/dashboards/my\_tools)



Video lessons(/dashboards/my\_video\_lessons)



Peers(/users/peers)

## I WILL FIND YOU AND I WILL RENDER YOU

imgflip.com

Discord(<https://discord.com/app>)

## Resources

Read or watch:

- React Official Website (/ritoken/gTvHLSiLFztiLKOsHVG2wFw)
- Getting started with React (/ritoken/sIVpPWBHBHRzp9cFX946\_g)
- Quick Start with React (/ritoken/S9hYxNyohGDvkfQb\_DgO6Q)





- create-react-app (/rltoken/XRP9\_jP0G0vQODINFymubQ)
- React Developer Tools (/rltoken/-no3Szs-PJQ\_P\_urpa4FSQ)
- What is Babel? (/rltoken/FOdRx4EZKlpoMEny-jxMXQ)
- Enzyme (/rltoken/AlilVwpyEpGwPOK40d5dXw)



Home(/)

# Learning Objectives



My Planning(/planning/me)

At the end of this project, you are expected to be able to explain to anyone (/rltoken/sh0lj4-LCpf1zas5UrkDuQ), **without the help of Google**:



Projects(/projects/current)

- How to create a basic Javascript application using React
- How to use the package create-react-app to start developing quickly with React
- What JSX is and how to use it
- How to use the React Developer Tools to debug your code
- How to use Enzyme's Shadow rendering to test your application
- How to use React with Webpack & Babel



QA Reviews I can make(/corrections/to\_review)



Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

# Requirements

- All your files will be interpreted/compiled on Ubuntu 18.04 LTS using node 12.x.x and npm 6.x.x
- Allowed editors: vi, vim, emacs, Visual Studio Code
- All your files should end with a new line
- A README.md file at the root of the folder of the project, is mandatory



Curriculums(/dashboards/my\_curriculums)



Concepts(/concepts)



Conference rooms(/dashboards/video\_rooms)

# Tasks

Servers(/servers)

## 0. Basic application

mandatory



Sandboxes(/user\_containers/current)

**Create a basic app named dashboard using create-react-app in your task\_0 directory**



Tools(/dashboards/my\_tools)

You will need a favicon and the Holberton logo. Download them and add them to the src/ directory under dashboard/



Holberton Logo Video on demand(/dashboards/videos)



Peers(/users/peers)



Discord(https://discord.com/app)



My Profile(/users/my\_profile)



(/)



Home(/)



My Planning(/planning/me)



Projects(/projects/current)



QA Reviews I can make(/corrections/to\_review)



Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)



Curriculums(/dashboards/my\_curriculums)



Concepts(/concepts)



Conference rooms(/dashboards/video\_rooms)



Servers(/servers)



Sandboxes(/user\_containers/current)



Tools(/dashboards/my\_tools)

**Remove the unused files:**



- service-worker
- index.css
- App.test.js

Video on demand(/dashboards/videos)

**in task\_0/dashboard/src/App.js , create a function App that returns:**



Peers(/users/peers)

- a header div with a class named App-header containing the Holberton logo and a h1 with the text School dashboard
- a body div with a class named App-body containing at least one paragraph with the text Login to access the full dashboard
- a footer div with a class named App-footer containing at least one paragraph with the text Copyright 2020 - holberton School



Discord(https://discord.com/app)



**Modify the App.css to make the project looks like the following screenshot:**

My Profile(/users/my\_profile)

## Requirements:



- When running, there should not be any lint error in the console (/)



### Repo:

Home(/)

- GitHub repository: alx-react
- Directory: 0x01-react\_intro
- File: task\_0/dashboards/src/, task\_0/dashboard/src/App.css, task\_0/dashboard/src/App.js



My Planning(/planning/me)



Projects(/projects/current)

>\_ Get a sandbox



QA Reviews I can make(/corrections/to\_review)

## 1. Basic Application

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Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

### Repo:



Concepts(/dashboards/concepts)

- GitHub repository: alx-react
- Directory: 0x01-react\_intro
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Concepts(/concepts)



Conference rooms(/dashboards/video\_rooms)



## Embedding expressions, functions

mandatory

Servers(/servers)

### Using your code from the previous task, in task\_1/dashboard/src/utils.js :



Sandboxes(/user\_containers/current)

- Create a function named getFullYear that will return the current year
- Create a function named getFooterCopy :



Tools(/dashboards/my\_tools)

- It accepts one argument isIndex (boolean). When true, the function should return Holberton School. When false, the function should return Holberton School main



dashboard  
Videos(/dashboards/videos)

- Modify the footer returned in task\_1/dashboard/src/App.js to use these two functions

### in task\_1/dashboard/src/Notifications.js , create a Notifications element:



Peers(/users/peers)

- It should import React
- It should export a function
- The function should return a div with the class Notifications



Discord(/https://discord.com/app)

- The div should contain a paragraph with the text Here is the list of notifications
- import the file Notifications.css .

### in task\_1/dashboard/src/Notifications.css , style the Notifications class:

- Add a border and some padding around the div

### Render the Notifications element

My Notifications (/notifications)





- Modify `task_1/dashboard/src/index.js` to render the new element ( Notifications ) in a div named `root-notifications`
- Check that you can see the two elements on the browser, and using the React browser extension

### Requirements:



- When running, there should not be any lint error in the console



Repo: My Planning(/planning/me)



- GitHub repository: alx-react



- Directory: `projects/projects/current`
- File: `task_1/dashboard/src/`, `task_1/dashboard/src/Utils.js`, `task_1/dashboard/src/App.js`, `task_1/dashboard/src/Notifications.css`, `task_1/dashboard/src/Notifications.js`, `task_1/dashboard/src/index.js`



Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

## 3. Modify the App

mandatory



using your code from the previous task, in `task_2/dashboard/src/App.js` under the paragraph `Curriculums(/dashboards/my_curriculums)` that says `Login to access the full dashboard`:



- add a label and input for email
- add a label and input for password
- when the user clicks on a label, it should select the corresponding input



- add one button element with the text "OK"



Repo: Servers(/servers)

- GitHub repository: alx-react
- Directory: `0x01-react_intro`
- File: `Sandboxes(/user_containers/current)`, `task_2/dashboard/src/`, `task_2/dashboard/src/App.js`



Tools(/dashboards/my\_tools)



Video on demand(/dashboards/videos)

## 4. Modify the Notifications

mandatory

in `task_2/dashboard/src/Utils.js`:



- Create a function named `getLatestNotification` that returns the following string:  
`<strong>Urgent requirement</strong>` - complete by EOD



task\_2/dashboard/src/App.js in the Notifications div:

- add a button element with inline styling (without using the CSS file):
  - show button on right side of notifications box
  - `aria-label` is `Close`
  - when user clicks on the button it logs to the console `Close button has been clicked`
- in the button element add a children `img` element that will import the `close-icon.png` image



- after the paragraph add an unordered list

- the list has the following items:

(/)

- The first one has a default priority and says `New course available`
- The second one has a urgent priority and says `New resume available`
- Add the priority to the first and second items of the list using a `data` attribute
- The last item correctly displays the content of `getLatestNotification` using `dangerouslySetInnerHTML`



Home(/)



My Planning(/planning/me)

task\_2/dashboard/src/Notifications.css :



Projects(/project/current)

- style the notification priorities using their data attribute: set the color of default items to blue, and the projects to green.

### Requirements:



QA Reviews I can make(/corrections/to-review)

- When running, there should not be any lint error in the console
- Your app should look like the following screenshot:



Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

### Repo:



- GitHub repository: `aiX-react`

- Directory: `0x01-react_intro`



- File: `task_2/dashboard/src/, task_2/dashboard/src/utils.js,`  
`task_2/dashboard/src/Notifications.js, task_2/dashboard/src/Notifications.css`



Conference rooms(/dashboards/video\_rooms)

## 5. Create basic tests with four tests

mandatory



Servers(/servers)

in task\_3/dashboard/src/utils.test.js :



- Write a test to check that the function `getFullYear` returns the correct year (be careful to not create a time bomb)
- Write a test to check that `getFooterCopy` returns the correct string when the argument is true or false



Tools(/dashboards/my\_tools)

- Write a test checking the returned string for `getLatestNotification`



Video on demand(/dashboards/videos)

### Repo:

- GitHub repository: `aiX-react`

- Directory: `0x01-react_intro`



- File: `task_3/dashboard/src/utils.test.js`



Discord(<https://discord.com/app>)



## 6. Install Enzyme

mandatory

- Install Enzyme with `npm`

My Profile(/users/my\_profile)

- Create a file named `setupTests.js` and configure the adapter for Enzyme



(/)

Repo:



- GitHub repository: alx-react
- Directory: 0x01-react\_intro
- File: task\_3/dashboard/src/setupTests.js



My Planning(/planning/me)

Check submission



Projects(/projects/current)

## 7. Create React tests

mandatory



QA Reviews I can make(/corrections/to\_review)

in `task_3/dashboard/src/App.test.js` create four tests:



- test that App renders without crashing
- verify that App renders a div with the class `App-header`
- verify that App renders a div with the class `App-body`
- verify that App renders a div with the class `App-footer`



`task_3/dashboard/src/Notifications.test.js` create three tests

- test that Notifications renders without crashing
- verify that Notifications renders three list items
- verify that Notifications renders the text Here is the list of notifications



### Requirements:

Conference rooms(/dashboards/video\_rooms)

- When running the test suites, you should see the following result
- You must use shallow rendering to write the React tests



Servers(/servers)

Test Suites: 3 passed, 3 total

Tests: 11 passed, 11 total



Sandboxes(/user\_containers/current)



Repo: Tools(/dashboards/my\_tools)

- GitHub repository: alx-react
- Directory: 0x01-react\_intro
- File: `task_3/dashboard/src/App.test.js`, `task_3/dashboard/src/Notifications.test.js`



Video on demand(/dashboards/videos)



Peers(/users/peers)



## Deploy to a GitHub page

Discord(<https://discord.com/app>)

mandatory

Deploy your application to GitHub Pages using `gh-pages` branch and `create-react-app`

Your application should be working correctly when accessing the GitHub URL.



Repo:

My Profile(/users/my\_profile)



- GitHub repository: alx-react



- Directory: 0x01-react\_intro

File: task\_4/



Home(/)

## 9. Create a project using Webpack

mandatory



My Planning(/planning/me)

Without reusing create-react-app or the code from the previous exercise, start a brand new npm project



Projects(/projects/current)

Reusing What you learned during the Webpack module:

- Set up a system to output a bundle.js file in a dist folder
- Set up a simple server with http reloading to review
- Create a src folder that will contain your Javascript
- Set up a simple html file in the dist folder that will import the bundle file in the body tag.



Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

Install and configure the various plugins to support:

- inline source map
- style loader
- css loader
- image webpack loader



Guides(/dashboards/my\_curriculums)



Concepts(/concepts)

Repo:



- GitHub repository: alx-react
- Directory: 0x01-react\_intro

- File: task\_5/dashboard/config/webpack.config.js, task\_5/dashboard/dist/index.html, task\_6/dashboard/src/index.js



Servers(/servers)



Sandboxes(/user\_containers/current)



Tools(/dashboards/my\_tools)

## 10. Install Babel

mandatory



Video on demand(/dashboards/videos)

- Install Babel, and in task\_5/dashboard/.babelrc, add the presets for preset-env and preset-react



Peers(/users/peers)

- Add a babel-loader to the Webpack configuration so you can support js and jsx files
- Import the files that you wrote in the previous task. All the Javascript and React code should be within the src folder



Discord(https://discord.com/app)

At this point, running webpack-dev-server should correctly execute your code, and you should be able to see the dashboard like in the last task



Repo:

- GitHub repository: alx-react

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- Directory: 0x01-react\_intro



- File: task\_5/dashboard/.babelrc, task\_5/dashboard/config/webpack.config.js

(/)



## 1. Reorganize the files

mandatory



Let's reorganize the files in our project:

My Planning(/planning/me)

- Every file related to the App, should be within a App folder
- Every file related to the Notifications, should be within a Notifications folder



Projects(/projects/current)

- Every file related to the utils functions, should be within a utils folder
- Every asset file should be within the assets folder



Set up the favicon.ico in the dist folder

QA Reviews I can make(/corrections/to\_review)

- Webpack config file should be within a config folder if it isn't already



Evaluation quizzes(/dashboards/my\_current\_evaluation\_quizzes)

Repo:

- GitHub repository: alx-react

- Directory: 0x01-react\_intro



Curriculums(/dashboards/my\_curriculums)

- File: task\_5/dashboard/src/App/App.css, task\_5/dashboard/src/App/App.js, task\_5/dashboard/src/App/App.test.js,



Concepts(/concepts)

task\_5/dashboard/src/Notifications/Notifications.css,

task\_5/dashboard/src/Notifications/Notifications.js,

task\_5/dashboard/src/Notifications/Notifications.test.js,



task\_5/dashboard/src/Utils/Utils.js, task\_5/dashboard/src/Utils/Utils.test.js,

task\_5/dashboard/config/webpack.config.js, task\_5/dashboard/src/assets/holberton-



logo.jpg, task\_5/dashboard/dist/favicon.ico

Servers(/servers)

Check submission



Sandboxes(/user\_containers/current)



Tools(/dashboards/my\_tools)

## 12. Testing

mandatory



Video on demand(/dashboards/videos)

Install Jest and Enzyme to run your test suites

move the setupTests.js file to config folder if you have not already



Requirements:

Peers(/users/peers)

- Your package.json should have the two following scripts:



Discord(<https://discord.com/app>)

```
start: "webpack-dev-server --mode development --config config/webpack.config.js",
```

```
"test": "jest"
```



- Running the first script should start your dev server and build without any error

- Running the second script should start your test suites and pass for each test

My Profile(/users/my\_profile)

**Repo:**



• GitHub repository: alx-react

• Directory: 0x01-react\_intro



• File: task\_5/dashboard/config/setupTests.js, task\_5/dashboard/package.json  
Home(/)



My Planning(/planning/me)



Projects(/projects/current)

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Conference rooms(/dashboards/video\_rooms)



Servers(/servers)



Sandboxes(/user\_containers/current)



Tools(/dashboards/my\_tools)



Video on demand(/dashboards/videos)



Peers(/users/peers)



Discord(<https://discord.com/app>)



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