

EXPRESS | WEBPACK

THE ULTIMATE GUIDE

BY MATHIEU MAES



Express | Webpack - The ultimate guide

Mathieu Maes

This book is for sale at <http://leanpub.com/express-webpack-ultimate-guide>

This version was published on 2019-02-24



This is a [Leanpub](#) book. Leanpub empowers authors and publishers with the Lean Publishing process. [Lean Publishing](#) is the act of publishing an in-progress ebook using lightweight tools and many iterations to get reader feedback, pivot until you have the right book and build traction once you do.

© 2018 - 2019 Mathieu Maes

Contents

Preface	1
Goals	1
Sample project	1
About the author	2
Chapter I - Scaffolding a new project	3
Conclusion	4
Further reading	4

Preface

A few years ago I started replacing Grunt build steps with Webpack. It gave my team much more power and control over the JS build artifacts. I knew Webpack had much more potential but only recently I've had a chance using Webpack for building CSS too. I couldn't resist running ecstatically to my colleague's desks with my laptop to show how CSS gets reloaded instantly without the browser having to reload!

I've also grown fond of Express and NodeJs. I sensed the possibility of giving the server-side code the same developer experience. I've come close but never achieved the "holy grail" scaffold. After trying many different approaches from others (even building the Express app as a webpack bundle!), I finally ended up with the solution, the holy grail, in this book.

The protagonists of the book are **Express** and **Webpack**. The chapters in this book aren't just a step-by-step guide to get you through the process, it will provide insights to all steps taken.

Keep in mind though that this book assumes some basic understanding of both protagonists and you have actually worked with an Express app.

Goals

This is what defines the holy grail (at least, for me personally):

1. Build (client-side) JS
 - Client-side Javascript should be transpiled with **Babel**
 - **Webpack** should be configured to make a JS bundle
2. Build CSS
 - Compile SASS/SCSS
 - Pass through PostCSS, mainly to apply the **Autoprefixer** plugin
3. Hot module replacement
 - Instantly apply CSS changes without reloading the browser
 - Refresh the page upon JS changes
 - Refresh the page upon changes in the Express app

Sample project

This book will often refer to a sample project on Github with clean commits and tags for each chapter.

<https://github.com/webberig/webpack-express-ultimate-sample>

Each of those commits will be explained in detail in each of the corresponding chapter.

About the author

Mathieu Maes is a front-end developer at [Zimmo.be](https://www.zimmo.be/)¹, located in Leuven (Belgium). With over 15 years of experience in web development, he's built countless of websites and applications. He could setup a good number of tools or frameworks in his sleep, which is why he's usually responsible for project scaffolding. That doesn't mean he gets actual work done in his sleep, nor he sleeps at work!

Find me on - Twitter: <https://twitter.com/webberig> - LinkedIn: <https://www.linkedin.com/in/webberig>
- GitHub: <https://github.com/webberig>

¹<https://www.zimmo.be/>

Chapter I - Scaffolding a new project

There are many ways to create a new Express project, but in this book we'll use the official [Express generator tool](#)² to generate a new project.

Create a new Express project

Use the generator to create your project:

```
1 npm i express-generator -g
2 express -v twig my-project
3 cd my-project
```

The generator will create a `my-project` folder and put a basic Express app in it. Let's go over the files created:

- `package.json` Define dependencies and scripts
- `public/` is the default static assets folder of Express. By default it contains a `style.css` file which we will replace in chapter 3
- `app.js` contains the actual Express application. This is where you generally define the middlewares of your Express app
- `routes/` contains Router instances that will be added to `app.js`
- `views/` contains a few twig templates. I prefer to use twig, but choosing another template system won't make much difference for this book
- `bin/www` this may look confusing, but it's actually just a JS file. It's used to start the server.

Take a look at the [commit for this step](#)³

Housekeeping

The fact you're using Javascript for both server and client is pretty neat. However, it can become confusing if you don't keep things separated. Separating client and server will also make defining the watched files easier for the Express HMR in chapter 5.

This is why we'll move all Express-related files to a new folder `/src/server`:

- `app.js` > `src/server/app.js`

²<https://expressjs.com/en/starter/generator.html>

³<https://github.com/webberig/webpack-express-ultimate-sample/commit/9268371229c671d773e675ba5372edfaf6df6074>

- `views/ > src/server/views/`
- `routes > src/server/routes/`

You'll also have to update references to this file:

- `bin/www`: Reference to the `app.js` (`require('../src/server/app')`)
- `src/server/app.js`: Reference to the public folder (`path.join(__dirname, '../../public')`)

[commit for this step](#)⁴

Adding .gitignore

If you want to use git in your project, consider making a `.gitignore` file first. I used the PHPStorm generator but the most important rules are:

- 1 `/dist`
- 2 `/node_modules`

[commit for this step](#)⁵

Conclusion

We used the Express generator to create a new Express project and made a few preparations before we add the client-side configuration. You should be able to start the app and see a test page.

- 1 `yarn install`
- 2 `yarn start`

Point your browser to (`http://localhost:3000`) and see the app in action!

After completing this chapter, your app should look like the sample app in the [chapter-1](#)⁶ tag.

Further reading

- <https://expressjs.com/en/starter/generator.html>
- <https://www.gitignore.io/>

⁴<https://github.com/webberig/webpack-express-ultimate-sample/commit/85714693f0b293d7b1c4b521c65d69f7e84cf3a1>

⁵<https://github.com/webberig/webpack-express-ultimate-sample/commit/31a14e20d90f1817d35fbc2b70238bf400a592c8>

⁶<https://github.com/webberig/webpack-express-ultimate-sample/tree/chapter-1>