

WEBPACK

Introduction

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Webpack is an open-source **module bundler**
for modern JavaScript applications.

A Module Bundler is a tool that puts front-end code (JS, CSS, etc.) and all its dependencies together in one (or few) file(s).

PRIMARY PURPOSE OF MODULE BUNDLERS

- Reduce the number of server requests by merging multiple code files into one or few files.
- Make the bundle file(s) as small as possible for improved performance.
- Allow developers to organize their code into modules for better maintainability.

Without module bundlers, it is necessary to keep track of the proper order in which the files should load...

...as well as making sure not to include any files that are not needed.

When webpack processes an application, it recursively builds a dependency graph that includes every module that the application needs...

...then packages all of those modules into a small number of bundles - often only one - to be loaded by the browser.

Webpack is highly configurable.

And it is highly extensible by the use of
Loaders & Plugins.

TASKS THAT WEBPACK CAN DO:

- Transpiling
- Linting
- Testing
- Minifying
- CSS bundling
- Hot Reloading
- And many more..

Node.js (and NPM) is required for installing and running webpack.

<https://www.npmjs.com/package/webpack>

```
npm install webpack --save-dev
```

Can be installed in global or local mode. Local is best as different projects can use different versions of webpack.

It is a dev dependency.

Current version is: 4.x

Documentation can be found on webpack site:

<https://webpack.js.org/>

Webpack can be used from the command line (CLI) or through Node.js (via NPM).

If webpack is installed globally:

webpack src/index.js public/build.js

If webpack is installed locally:

`node_modules\.bin\webpack` `src/index.js` `public/build.js`

NPM package.json entry:

```
"scripts": {  
  "build": "webpack src/index.js public/build.js"  
}
```

>> npm run build

Note: No need to specify full relative path to webpack inside package.json

END OF CHAPTER

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APPENDIX