

# Webpack

# 1 - Webpack

[Aria Fallah](#)  
[Webpack](#)

[Webpack](#)

가

Webpack

## [1 - 1. Webpack](#)

?

Webpack

가

가

js

npm

ES6/ES7

(Babel )

LESS/SCSS CSS

HMR(Hot Module Replacement)

가 ?

js

-

가

(

js

<script>

가 )

npm

- npm

가

가

. npm

ES6/ES7 -

가

LESS/SCSS

CSS

- CSS

HMR

-

가

- 가

## [1 - 2.](#)

### [1 - 2 - 1.](#)

Webpack

:

```
npm install -g webpack
```

Webpack

:

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

Webpack

:

```
webpack
```

Webpack

가

:

```
webpack - - watch
```

가

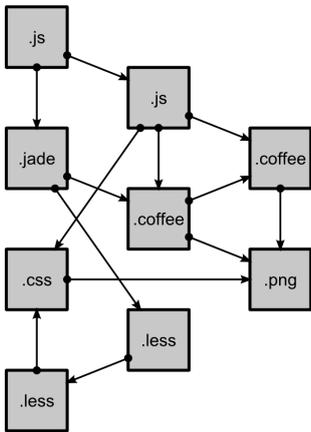
Webpack

:

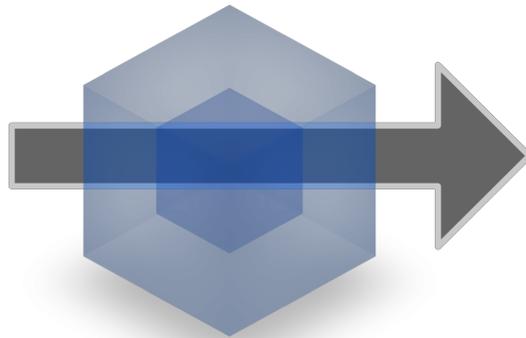
```
webpack - - config myconfig.js
```

[1-2-2.](#)

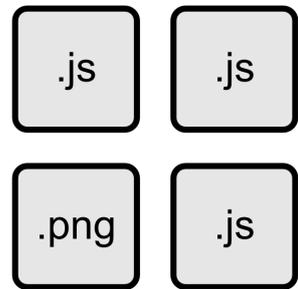
[1](#)



modules with dependencies



webpack  
MODULE BUNDLER

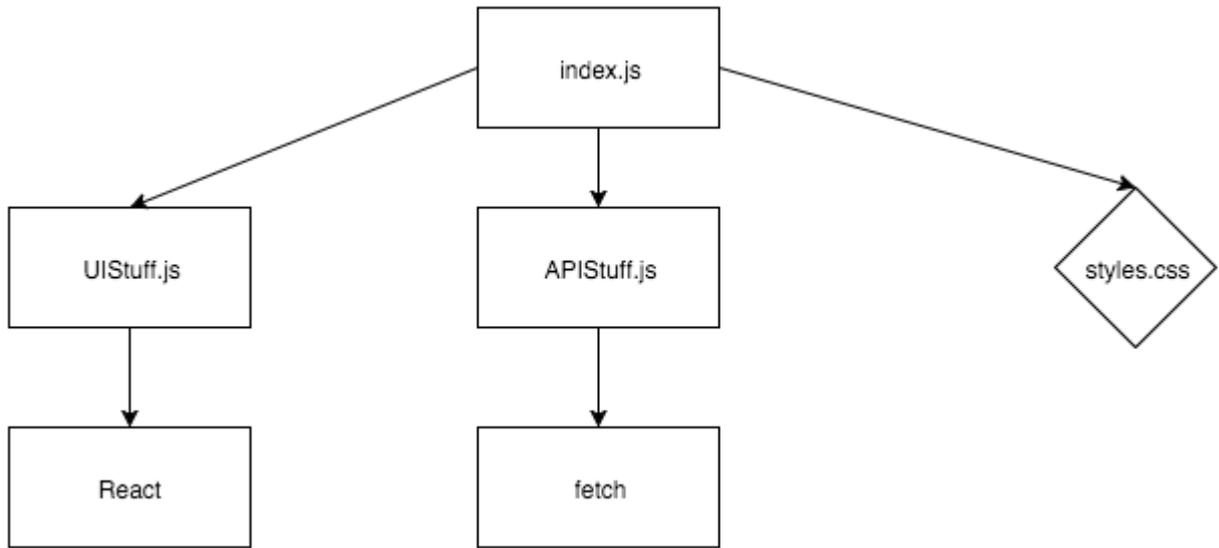


static assets

Webpack

가

가



가 가 :

```

MyDirectory
| - index.js
| - UIStuff.js
| - APIStuff.js
| - styles.css
| - extraFile.js
  
```

```

// index.js
require('./styles.css')
require('./UIStuff.js')
require('./APIStuff.js')
// UIStuff.js
var React = require('React')
React.createClass({
  // stuff
})
// APIStuff.js
var fetch = require('fetch') // fetch polyfill
fetch('https://google.com')
  
```

```

/* styles.css */
body {
  background-color: rgb(200, 56, 97);
}
  
```

webpack , , extraFile.js requi

bundle.js :

```

// contents of styles.css
// contents of UIStuff.js + React
// contents of APIStuff.js + fetch
  
```

[1 - 2 - 3.](#)

?

Webpack CSS require  
, require .css .html, .png

```
// index.js
require('./styles.css')
```

Webpack - CSS -

Webpack

[1 - 2 - 4.](#)

, Webpack 가 .

[1 - 3.](#)

Webpack (?)

```
webpack.config.js
```

Webpack

[1 - 3 - 1.](#)

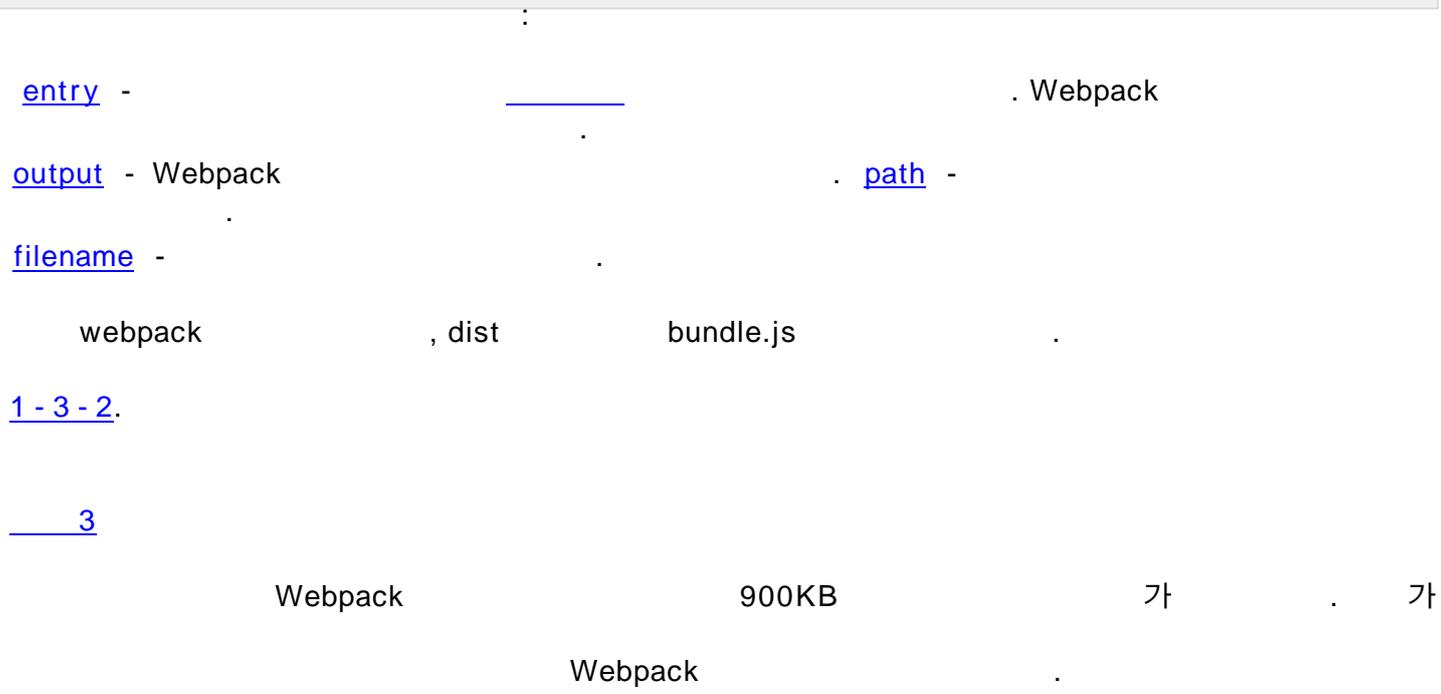
[2](#)

:

```
MyDirectory
| - dist
| - src
| - index.js
| - webpack.config.js
```

Webpack

```
// webpack.config.js
var path = require('path')
module.exports = {
  entry: ['./src/index'], // file extension after index is optional for .js files
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  }
}
```



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

Webpack

```
// webpack.config.js
var path = require('path')
var webpack = require('webpack')
module.exports = {
  entry: ['./src/index'],
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  plugins: [
    new webpack.optimize.UglifyJsPlugin({
      compressor: {
        warnings: false,
      },
    })
  ]
}
```

plugins - [webpack.optimize.UglifyJsPlugin](#) -

, webpack , UglifyJsPlugin 900KB

[OccurrenceOrderPlugin](#) 가

. id (predictable) 가 , id가 ( ) id  
)

, [Webpack2](#)

```
// webpack.config.js
var path = require('path')
var webpack = require('webpack')
module.exports = {
  entry: ['./src/index'],
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  plugins: [
    new webpack.optimize.UglifyJsPlugin({
      compressor: {
        warnings: false,
      },
    }),
    new webpack.optimize.OccurrenceOrderPlugin()
  ]
}
```

[1 - 4.](#)

가 , Webpack

, Webpack

```
MyDirectory
| - dist
| - src
|   - index.js
|   - index.html
|   - styles.css
| - package.json
| - webpack.config.js
```

\_\_\_\_\_ - CSS 가 가 .  
\_\_\_\_\_ 가 - HTML 가 .  
\_\_\_\_\_ - development production Webpack  
webpack - dev - server HMR .  
\_\_\_\_\_ - .

[1-4-1.](#)

[4](#)

\_\_\_\_\_ 가 .

```
npm install - - save - dev style - loader css - loader
```

CSS :

```
// webpack.config.js
var path = require('path')
var webpack = require('webpack')
module.exports = {
  entry: ['./src/index'],
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  plugins: [
    new webpack.optimize.UglifyJsPlugin({
      compressor: {
        warnings: false,
      },
    }),
    new webpack.optimize.OccurrenceOrderPlugin()
  ],
  module: {
    loaders: [{
      test: /\.css$/,
      loaders: ['style', 'css']
    }]
  }
}
```

[module](#) - . [loaders](#) -  
. test -  
loaders -  
webpack , .css 가 require , style css  
가 , :

```
ERROR in ./test.css
Module parse failed: /Users/Developer/workspace/tutorials/webpack/part1/example1/test.css
Line 1: Unexpected token {
You may need an appropriate loader to handle this file type.
```

CSS SCSS :

```
npm install - - save - dev sass - loader node - sass webpack
```

```
{
  test: /\.scss$/,
  loaders: ["style", "css", "sass"]
}
```

LESS

가 sass 가 .scss ,

[1-4-2.](#) 가

[5](#)

가 .HTM

:

```
npm install - - save - dev html - webpack - plugin@2
```

가 .

```

// webpack.config.js
var path = require('path')
var webpack = require('webpack')
var HtmlWebpackPlugin = require('html-webpack-plugin')
module.exports = {
  entry: ['./src/index'],
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  plugins: [
    new webpack.optimize.UglifyJsPlugin({
      compressor: {
        warnings: false,
      },
    }),
    new webpack.optimize.OccurrenceOrderPlugin(),
    new HtmlWebpackPlugin({
      template: './src/index.html'
    })
  ],
  module: {
    loaders: [{
      test: /\.css$/,
      loaders: ['style', 'css']
    }]
  }
}

```

webpack, HtmlWebpackPlugin, ./src/index.html, ./src/index.html

index.html

가

```

<html>
<head>
  <title>Webpack Tutorial</title>
</head>
<body>
  <h1>Very Website</h1>
  <section id="color"> </section>
  <button id="button">Such Button</button>
</body>
</html>

```

bundle.js HTML <script>

styles.css 가 가 .

```
h1 {
  color: rgb(114, 191, 190);
  text-align: center;
}
#color {
  width: 300px;
  height: 300px;
  margin: 0 auto;
}
button {
  cursor: pointer;
  display: block;
  width: 100px;
  outline: 0;
  border: 0;
  margin: 20px auto;
}
```

[1-4-3.](#)

6

가

```
npm install -g webpack-dev-server
npm install --save-dev webpack-dev-server
```

(development)

(production)

```

// webpack.config.dev.js
var path = require('path')
var webpack = require('webpack')
var HtmlWebpackPlugin = require('html-webpack-plugin')
module.exports = {
  devtool: 'cheap - eval - source - map',
  entry: [
    'webpack-dev-server/client?http://localhost:8080',
    'webpack/hot/dev-server',
    './src/index'
  ],
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  plugins: [
    new webpack.HotModuleReplacementPlugin(),
    new HtmlWebpackPlugin({
      template: './src/index.html'
    })
  ],
  module: {
    loaders: [{
      test: /\.css$/,
      loaders: ['style', 'css']
    }]
  },
  devServer: {
    contentBase: './dist',
    hot: true
  }
}

```

가

webpack.optimize

:

entry: HMR 가  
 devServer contentBase:  
 hot: HMR

```

// webpack.config.prod.js
var path = require('path')
var webpack = require('webpack')
var HtmlWebpackPlugin = require('html-webpack-plugin')
module.exports = {
  devtool: 'source-map',
  entry: ['./src/index'],
  output: {
    path: path.join(__dirname, 'dist'),
    filename: 'bundle.js'
  },
  plugins: [
    new webpack.optimize.UglifyJsPlugin({
      compressor: {
        warnings: false,
      },
    }),
    new webpack.optimize.OccurrenceOrderPlugin(),
    new HtmlWebpackPlugin({
      template: './src/index.html'
    })
  ],
  module: {
    loaders: [{
      test: /\.css$/,
      loaders: ['style', 'css']
    }]
  }
}

```

가 :

[devtool](#) - . 가 ,  
 . source - map cheap - eval - source - map 가  
 가 , source - map 가  
 , cheap - eval - source - map 가 ,

webpack - dev - server - - config webpack.config.dev.js

webpack - - config webpack.config.prod.js

package.json

scripts 가 .

```
// package.json
{
  //...
  "scripts": {
    "build": "webpack - - config webpack.config.prod.js",
    "dev" : "webpack - dev - server - - config webpack.config.dev.js"
  }
  //...
}
```

```
npm run build
npm run dev
```

npm run dev                    http://localhost:8080

:                    index.html                    가 -  
:                    [html - reload](#)                    Webpack

[1 - 4 - 4.](#)

[7](#)

Webpack

npm run dev                    http://localhost:8080

npm                    가

```
npm install - - save pleasejs
```

PleaseJS

div

```

// index.js
// Accept hot module reloading
if (module.hot) {
  module.hot.accept()
}
require('./styles.css') // The page is now styled
var Please = require('pleasejs')
var div = document.getElementById('color')
var button = document.getElementById('button')
function changeColor() {
  div.style.backgroundColor = Please.make_color()
}
button.addEventListener('click', changeColor)

```

, [HMR](#) :

```

if (module.hot) {
  module.hot.accept()
}

```

!

: CSS CSS , CSS가 . [css - extract](#) .

[1 - 5.](#)

! div ! Webpack, ?

Webpack . 1 가

2 Webpack Babel ES6 ES5 transpile .

3 Webpack React + Babel .