

webpack5项目配置

介绍

我们将使用前面所学的知识来从零开始搭建 React-Cli 和 Vue-cli。

Vue 脚手架

开发模式配置

```
1 // webpack.dev.js
2 const path = require("path");
3 const ESLintWebpackPlugin = require("eslint-webpack-plugin");
4 const HtmlWebpackPlugin = require("html-webpack-plugin");
5 const { VueLoaderPlugin } = require("vue-loader");
6 const { DefinePlugin } = require("webpack");
7 const CopyPlugin = require("copy-webpack-plugin");
8
9 const getStyleLoaders = (preProcessor) => {
10   return [
11     "vue-style-loader",
12     "css-loader",
13     {
14       loader: "postcss-loader",
15       options: {
16         postcssOptions: {
17           plugins: [
18             "postcss-preset-env", // 能解决大多数样式兼容性问题
19           ],
20         },
21       },
22     },
23     preProcessor,
24   ].filter(Boolean);
25 };
26
27 module.exports = {
28   entry: "./src/main.js",
29   output: {
30     path: undefined,
31     filename: "static/js/[name].js",
```




生产模式配置

```
1 // webpack.prod.js
2 const path = require("path");
3 const ESLintWebpackPlugin = require("eslint-webpack-plugin");
4 const HtmlWebpackPlugin = require("html-webpack-plugin");
5 const MiniCssExtractPlugin = require("mini-css-extract-plugin");
6 const CssMinimizerPlugin = require("css-minimizer-webpack-plugin");
7 const TerserWebpackPlugin = require("terser-webpack-plugin");
8 const ImageMinimizerPlugin = require("image-minimizer-webpack-plugin");
9 const { VueLoaderPlugin } = require("vue-loader");
10 const { DefinePlugin } = require("webpack");
11
12 const getStyleLoaders = (preProcessor) => {
13   return [
14     MiniCssExtractPlugin.loader,
15     "css-loader",
16     {
17       loader: "postcss-loader",
18       options: {
19         postcssOptions: {
20           plugins: [
21             "postcss-preset-env", // 能解决大多数样式兼容性问题
22           ],
23         },
24       },
25     },
26     preProcessor,
27   ].filter(Boolean);
28 };
29
30 module.exports = {
31   entry: "./src/main.js",
32   output: {
33     path: undefined,
34     filename: "static/js/[name].[contenthash:10].js",
35     chunkFilename: "static/js/[name].[contenthash:10].chunk.js",
36     assetModuleFilename: "static/js/[hash:10][ext][query]",
37     clean: true,
38   },
39   module: {
40     rules: [
41       {
42         // 用来匹配 .css 结尾的文件
43         test: /\.css$/,
44         // use 数组里面 Loader 执行顺序是从右到左
45         use: getStyleLoaders(),
```

```

46     },
47     {
48       test: /\.less$/,
49       use: getStyleLoaders("less-loader"),
50     },
51     {
52       test: /\.s[ac]ss$/,
53       use: getStyleLoaders("sass-loader"),
54     },
55     {
56       test: /\.styl$/,
57       use: getStyleLoaders("stylus-loader"),
58     },
59     {
60       test: /\..(png|jpe?g|gif|svg)$/,
61       type: "asset",
62       parser: {
63         dataUrlCondition: {
64           maxSize: 10 * 1024, // 小于10kb的图片会被base64处理
65         },
66       },
67     },
68     {
69       test: /\..(ttf|woff2?)$/,
70       type: "asset/resource",
71     },
72     {
73       test: /\..(jsx|js)$/,
74       include: path.resolve(__dirname, "../src"),
75       loader: "babel-loader",
76       options: {
77         cacheDirectory: true,
78         cacheCompression: false,
79         plugins: [
80           // "@babel/plugin-transform-runtime" // presets中包含了
81         ],
82       },
83     },
84     // vue-loader不支持oneOf
85     {
86       test: /\.vue$/,
87       loader: "vue-loader", // 内部会给vue文件注入HMR功能代码
88       options: {
89         // 开启缓存
90         cacheDirectory: path.resolve(
91           __dirname,
92           "node_modules/.cache/vue-loader"
93         ),

```

```

94         },
95     },
96 ],
97 },
98 plugins: [
99     new ESLintWebpackPlugin({
100         context: path.resolve(__dirname, "../src"),
101         exclude: "node_modules",
102         cache: true,
103         cacheLocation: path.resolve(
104             __dirname,
105             "../node_modules/.cache/.eslintcache"
106         ),
107     }),
108     new HtmlWebpackPlugin({
109         template: path.resolve(__dirname, "../public/index.html"),
110     }),
111     new CopyPlugin({
112         patterns: [
113             {
114                 from: path.resolve(__dirname, "../public"),
115                 to: path.resolve(__dirname, "../dist"),
116                 toType: "dir",
117                 noErrorOnMissing: true,
118                 globOptions: {
119                     ignore: ["**/index.html"],
120                 },
121                 info: {
122                     minimized: true,
123                 },
124             },
125         ],
126     }),
127     new MiniCssExtractPlugin({
128         filename: "static/css/[name].[contenthash:10].css",
129         chunkFilename: "static/css/[name].[contenthash:10].chunk.css",
130     }),
131     new VueLoaderPlugin(),
132     new DefinePlugin({
133         __VUE_OPTIONS_API__: "true",
134         __VUE_PROD_DEVTOOLS__: "false",
135     }),
136 ],
137 optimization: {
138     // 压缩的操作
139     minimizer: [
140         new CssMinimizerPlugin(),
141         new TerserWebpackPlugin(),

```



```

142     new ImageMinimizerPlugin({
143       minimizer: {
144         implementation: ImageMinimizerPlugin.imageminGenerate,
145         options: {
146           plugins: [
147             ["gifsicle", { interlaced: true }],
148             ["jpegtran", { progressive: true }],
149             ["optipng", { optimizationLevel: 5 }],
150             [
151               "svgo",
152               {
153                 plugins: [
154                   "preset-default",
155                   "prefixIds",
156                   {
157                     name: "sortAttrs",
158                     params: {
159                       xmlnsOrder: "alphabetical",
160                     },
161                   },
162                 ],
163               },
164             ],
165           ],
166         },
167       },
168     }),
169   ],
170   splitChunks: {
171     chunks: "all",
172   },
173   runtimeChunk: {
174     name: (entrypoint) => `runtime~${entrypoint.name}`,
175   },
176 },
177 resolve: {
178   extensions: [".vue", ".js", ".json"],
179 },
180 mode: "production",
181 devtool: "source-map",
182 };

```

其他配置

- package.json

```
1 {
2   "name": "vue-cli",
3   "version": "1.0.0",
4   "description": "",
5   "main": "main.js",
6   "scripts": {
7     "start": "npm run dev",
8     "dev": "cross-env NODE_ENV=development webpack serve --config ./config/webpack.dev.js",
9     "build": "cross-env NODE_ENV=production webpack --config ./config/webpack.prod.js"
10  },
11  "keywords": [],
12  "author": "",
13  "license": "ISC",
14  "devDependencies": {
15    "@babel/core": "^7.17.10",
16    "@babel/eslint-parser": "^7.17.0",
17    "@vue/cli-plugin-babel": "^5.0.4",
18    "babel-loader": "^8.2.5",
19    "copy-webpack-plugin": "^10.2.4",
20    "cross-env": "^7.0.3",
21    "css-loader": "^6.7.1",
22    "css-minimizer-webpack-plugin": "^3.4.1",
23    "eslint-plugin-vue": "^8.7.1",
24    "eslint-webpack-plugin": "^3.1.1",
25    "html-webpack-plugin": "^5.5.0",
26    "image-minimizer-webpack-plugin": "^3.2.3",
27    "imagemin": "^8.0.1",
28    "imagemin-gifsicle": "^7.0.0",
29    "imagemin-jpegtran": "^7.0.0",
30    "imagemin-optipng": "^8.0.0",
31    "imagemin-svgo": "^10.0.1",
32    "less-loader": "^10.2.0",
33    "mini-css-extract-plugin": "^2.6.0",
34    "postcss-preset-env": "^7.5.0",
35    "sass-loader": "^12.6.0",
36    "stylus-loader": "^6.2.0",
37    "vue-loader": "^17.0.0",
38    "vue-style-loader": "^4.1.3",
39    "vue-template-compiler": "^2.6.14",
40    "webpack": "^5.72.0",
41    "webpack-cli": "^4.9.2",
42    "webpack-dev-server": "^4.9.0"
43  },
```

```
44   "dependencies": {
45     "vue": "^3.2.33",
46     "vue-router": "^4.0.15"
47   },
48   "browserslist": ["last 2 version", "> 1%", "not dead"]
49 }
```

- .eslintrc.js

JavaScript | 复制代码

```
1 module.exports = {
2   root: true,
3   env: {
4     node: true,
5   },
6   extends: ["plugin:vue/vue3-essential", "eslint:recommended"],
7   parserOptions: {
8     parser: "@babel/eslint-parser",
9   },
10  };
```

- babel.config.js

JavaScript | 复制代码

```
1 module.exports = {
2   presets: ["@vue/cli-plugin-babel/preset"],
3 };
```

合并开发和生产配置

```

2  const path = require('path');
3  const ESLintWebpackPlugin = require("eslint-webpack-plugin");
4  const HtmlWebpackPlugin = require("html-webpack-plugin");
5  const MiniCssExtractPlugin = require("mini-css-extract-plugin");
6  const CssMinimizerPlugin = require("css-minimizer-webpack-plugin");
7  const TerserWebpackPlugin = require("terser-webpack-plugin");
8  const ImageMinimizerPlugin = require("image-minimizer-webpack-plugin");
9  const { VueLoaderPlugin } = require("vue-loader");
10 const { DefinePlugin } = require("webpack");
11 const CopyPlugin = require("copy-webpack-plugin");
12
13 // 需要通过 cross-env 定义环境变量
14 const isProduction = process.env.NODE_ENV === "production";
15
16 const getStyleLoaders = (preProcessor) => {
17   return [
18     isProduction ? MiniCssExtractPlugin.loader : "vue-style-loader",
19     "css-loader",
20     {
21       loader: "postcss-loader",
22       options: {
23         postcssOptions: {
24           plugins: ["postcss-preset-env"],
25         },
26       },
27     },
28     preProcessor,
29   ].filter(Boolean);
30 };
31
32 module.exports = {
33   entry: "./src/main.js",
34   output: {
35     path: isProduction ? path.resolve(__dirname, "../dist") : undefined,
36     filename: isProduction
37       ? "static/js/[name].[contenthash:10].js"
38       : "static/js/[name].js",
39     chunkFilename: isProduction
40       ? "static/js/[name].[contenthash:10].chunk.js"
41       : "static/js/[name].chunk.js",
42     assetModuleFilename: "static/js/[hash:10][ext][query]",
43     clean: true,
44   },
45   module: {
46     rules: [
47       {

```

```

48     // 用来匹配 .css 结尾的文件
49     test: /\.css$/,
50     // use 数组里面 Loader 执行顺序是从右到左
51     use: getStyleLoaders(),
52 },
53 {
54     test: /\.less$/,
55     use: getStyleLoaders("less-loader"),
56 },
57 {
58     test: /\.s[ac]ss$/,
59     use: getStyleLoaders("sass-loader"),
60 },
61 {
62     test: /\.styl$/,
63     use: getStyleLoaders("stylus-loader"),
64 },
65 {
66     test: /\..(png|jpe?g|gif|svg)$/,
67     type: "asset",
68     parser: {
69         dataUrlCondition: {
70             maxSize: 10 * 1024, // 小于10kb的图片会被base64处理
71         },
72     },
73 },
74 {
75     test: /\..(ttf|woff2?)$/,
76     type: "asset/resource",
77 },
78 {
79     test: /\..(jsx|js)$/,
80     include: path.resolve(__dirname, "../src"),
81     loader: "babel-loader",
82     options: {
83         cacheDirectory: true,
84         cacheCompression: false,
85         plugins: [
86             // "@babel/plugin-transform-runtime" // presets中包含了
87         ],
88     },
89 },
90 // vue-loader不支持oneOf
91 {
92     test: /\.vue$/,
93     loader: "vue-loader", // 内部会给vue文件注入HMR功能代码
94     options: {
95         // 开启缓存

```

```

96         cacheDirectory: path.resolve(
97             __dirname,
98             "node_modules/.cache/vue-loader"
99         ),
100     },
101 },
102 ],
103 },
104 },
105 plugins: [
106     new ESLintWebpackPlugin({
107         context: path.resolve(__dirname, "../src"),
108         exclude: "node_modules",
109         cache: true,
110         cacheLocation: path.resolve(
111             __dirname,
112             "../node_modules/.cache/.eslintcache"
113         ),
114     }),
115     new HtmlWebpackPlugin({
116         template: path.resolve(__dirname, "../public/index.html"),
117     }),
118     new CopyPlugin({
119         patterns: [
120             {
121                 from: path.resolve(__dirname, "../public"),
122                 to: path.resolve(__dirname, "../dist"),
123                 toType: "dir",
124                 noErrorOnMissing: true,
125                 globOptions: {
126                     ignore: ["**/index.html"],
127                 },
128                 info: {
129                     minimized: true,
130                 },
131             },
132         ],
133     }),
134     isProduction &&
135     new MiniCssExtractPlugin({
136         filename: "static/css/[name].[contenthash:10].css",
137         chunkFilename: "static/css/[name].[contenthash:10].chunk.css",
138     }),
139     new VueLoaderPlugin(),
140     new DefinePlugin({
141         __VUE_OPTIONS_API__: "true",
142         __VUE_PROD_DEVTOOLS__: "false",
143     }),
144 ].filter(Boolean),

```

```

144 optimization: {
145     minimize: isProduction,
146     // 压缩的操作
147     minimizer: [
148         new CssMinimizerPlugin(),
149         new TerserWebpackPlugin(),
150         new ImageMinimizerPlugin({
151             minimizer: {
152                 implementation: ImageMinimizerPlugin.imageminGenerate,
153                 options: {
154                     plugins: [
155                         ["gifsicle", { interlaced: true }],
156                         ["jpegtran", { progressive: true }],
157                         ["optipng", { optimizationLevel: 5 }],
158                         [
159                             "svgo",
160                             {
161                                 plugins: [
162                                     "preset-default",
163                                     "prefixIds",
164                                     {
165                                         name: "sortAttrs",
166                                         params: {
167                                             xmlnsOrder: "alphabetical",
168                                         },
169                                     },
170                                 ],
171                             },
172                         ],
173                     ],
174                 },
175             },
176         }),
177     ],
178     splitChunks: {
179         chunks: "all",
180     },
181     runtimeChunk: {
182         name: (entrypoint) => `runtime~${entrypoint.name}`,
183     },
184 },
185 resolve: {
186     extensions: [".vue", ".js", ".json"],
187 },
188 devServer: {
189     open: true,
190     host: "localhost",
191     port: 3000,

```



```
192     hot: true,  
193     compress: true,  
194     historyApiFallback: true, // 解决vue-router刷新404问题  
195   },  
196   mode: isProduction ? "production" : "development",  
197   devtool: isProduction ? "source-map" : "cheap-module-source-map",  
198 };
```

优化配置

```
1  const path = require("path");
2  const ESLintWebpackPlugin = require("eslint-webpack-plugin");
3  const HtmlWebpackPlugin = require("html-webpack-plugin");
4  const MiniCssExtractPlugin = require("mini-css-extract-plugin");
5  const CssMinimizerPlugin = require("css-minimizer-webpack-plugin");
6  const ImageMinimizerPlugin = require("image-minimizer-webpack-plugin");
7  const TerserWebpackPlugin = require("terser-webpack-plugin");
8  const CopyPlugin = require("copy-webpack-plugin");
9  const { VueLoaderPlugin } = require("vue-loader");
10 const { DefinePlugin } = require("webpack");
11 const AutoImport = require("unplugin-auto-import/webpack");
12 const Components = require("unplugin-vue-components/webpack");
13 const { ElementPlusResolver } = require("unplugin-vue-components/resolvers");
14 // 需要通过 cross-env 定义环境变量
15 const isProduction = process.env.NODE_ENV === "production";
16
17 const getStyleLoaders = (preProcessor) => {
18   return [
19     isProduction ? MiniCssExtractPlugin.loader : "vue-style-loader",
20     "css-loader",
21     {
22       loader: "postcss-loader",
23       options: {
24         postcssOptions: {
25           plugins: ["postcss-preset-env"],
26         },
27       },
28     },
29     preProcessor && {
30       loader: preProcessor,
31       options:
32         preProcessor === "sass-loader"
33         ? {
34           // 自定义主题: 自动引入我们定义的scss文件
35           additionalData: `@use "@/styles/element/index.scss" as *;\`,
36         }
37         : {},
38     },
39   ].filter(Boolean);
40 };
41
42 module.exports = {
43   entry: "./src/main.js",
44   output: {
```

```

45     path: isProduction ? path.resolve(__dirname, "../dist") : undefined,
46     filename: isProduction
47       ? "static/js/[name].[contenthash:10].js"
48       : "static/js/[name].js",
49     chunkFilename: isProduction
50       ? "static/js/[name].[contenthash:10].chunk.js"
51       : "static/js/[name].chunk.js",
52     assetModuleFilename: "static/js/[hash:10][ext][query]",
53     clean: true,
54   },
55   module: {
56     rules: [
57       {
58         test: /\.css$/,
59         use: getStyleLoaders(),
60       },
61       {
62         test: /\.less$/,
63         use: getStyleLoaders("less-loader"),
64       },
65       {
66         test: /\.s[ac]ss$/,
67         use: getStyleLoaders("sass-loader"),
68       },
69       {
70         test: /\.styl$/,
71         use: getStyleLoaders("stylus-loader"),
72       },
73       {
74         test: /\.(png|jpe?g|gif|svg)$/,
75         type: "asset",
76         parser: {
77           dataUrlCondition: {
78             maxSize: 10 * 1024,
79           },
80         },
81       },
82       {
83         test: /\.(ttf|woff2?)$/,
84         type: "asset/resource",
85       },
86       {
87         test: /\.jsx?$/,
88         include: path.resolve(__dirname, "../src"),
89         loader: "babel-loader",
90         options: {
91           cacheDirectory: true,
92           cacheCompression: false,

```

```

93     plugins: [
94         // "@babel/plugin-transform-runtime" // presets中包含了
95     ],
96 },
97 },
98 // vue-loader不支持oneOf
99 {
100     test: /\.vue$/,
101     loader: "vue-loader", // 内部会给vue文件注入HMR功能代码
102     options: {
103         // 开启缓存
104         cacheDirectory: path.resolve(
105             __dirname,
106             "node_modules/.cache/vue-loader"
107         ),
108     },
109 },
110 ],
111 },
112 plugins: [
113     new ESLintWebpackPlugin({
114         context: path.resolve(__dirname, "../src"),
115         exclude: "node_modules",
116         cache: true,
117         cacheLocation: path.resolve(
118             __dirname,
119             "../node_modules/.cache/.eslintcache"
120         ),
121     }),
122     new HtmlWebpackPlugin({
123         template: path.resolve(__dirname, "../public/index.html"),
124     }),
125     new CopyPlugin({
126         patterns: [
127             {
128                 from: path.resolve(__dirname, "../public"),
129                 to: path.resolve(__dirname, "../dist"),
130                 toType: "dir",
131                 noErrorOnMissing: true,
132                 globOptions: {
133                     ignore: ["**/index.html"],
134                 },
135                 info: {
136                     minimized: true,
137                 },
138             },
139         ],
140     }),

```

```

141     isProduction &&
142     new MiniCssExtractPlugin({
143         filename: "static/css/[name].[contenthash:10].css",
144         chunkFilename: "static/css/[name].[contenthash:10].chunk.css",
145     }),
146     new VueLoaderPlugin(),
147     new DefinePlugin({
148         __VUE_OPTIONS_API__: "true",
149         __VUE_PROD_DEVTOOLS__: "false",
150     }),
151     // 按需加载element-plus组件样式
152     AutoImport({
153         resolvers: [ElementPlusResolver()],
154     }),
155     Components({
156         resolvers: [
157             ElementPlusResolver({
158                 importStyle: "sass", // 自定义主题
159             }),
160         ],
161     }),
162 ].filter(Boolean),
163 optimization: {
164     minimize: isProduction,
165     // 压缩的操作
166     minimizer: [
167         new CssMinimizerPlugin(),
168         new TerserWebpackPlugin(),
169         new ImageMinimizerPlugin({
170             minimizer: {
171                 implementation: ImageMinimizerPlugin.imageminGenerate,
172                 options: {
173                     plugins: [
174                         ["gifsicle", { interlaced: true }],
175                         ["jpegtran", { progressive: true }],
176                         ["optipng", { optimizationLevel: 5 }],
177                         [
178                             "svgo",
179                             {
180                                 plugins: [
181                                     "preset-default",
182                                     "prefixIds",
183                                     {
184                                         name: "sortAttrs",
185                                         params: {
186                                             xmlnsOrder: "alphabetical",
187                                         },
188                                     },
189                                 ],
190                             },
191                         ],
192                     ],
193                 },
194             },
195         )
196     ],
197 }

```

```
189         l,  
190     },  
191     l,  
192     },  
193     },  
194     },  
195     },  
196 }
```