

互联网应用开发技术

Web Application Development

第5课

WEB前端-VUE实例

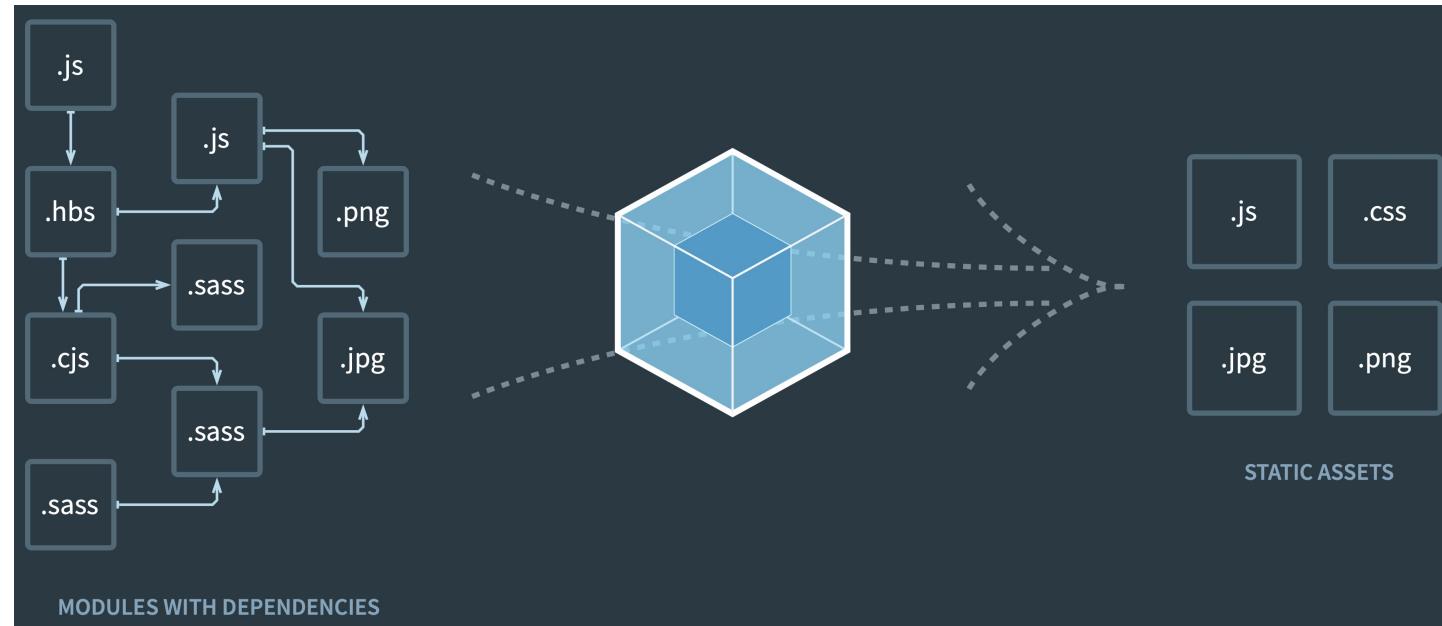
Episode Five
Vue Sample

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- From
 - WebPack
 - <https://webpack.js.org>
 - <https://www.webpackjs.com>
 - A vue component of dynamic table
 - <https://vuejsexamples.com/a-vue-component-of-dynamic-table/>
 - <https://github.com/TheoXiong/vue-table-dynamic>
- References
 - Vue.js Examples
 - <https://vuejsexamples.com>
 - dr-vue-echarts
 - <https://drinkeewu.github.io/dr-vue-echarts/>
 - 为什么 npm 要为每个项目单独安装一遍 node_modules?
<https://www.cnblogs.com/weiyinfu/p/8471407.html>

- Bundle your assets, scripts, images, styles



Write Your Code

src/index.js

```
import bar from './bar';

bar();
```

src/bar.js

```
export default function bar() {
  //
}
```

Bundle It

Without config or provide custom webpack.config.js

```
const path = require('path');

module.exports = {
  entry: './src/index.js',
  output: {
    path: path.resolve(__dirname, 'dist'),
    filename: 'bundle.js'
  }
};
```

page.html

```
<!doctype html>
<html>
  <head>
    ...
  </head>
  <body>
    ...
    <script src="dist/bundle.js"></script>
  </body>
</html>
```

webpack - Configuration

project

```
webpack-demo
|- package.json
|- webpack.config.js
|- /dist
  |- main.js
  |- index.html
|- /src
  |- index.js
|- /node_modules
```

webpack.config.js

```
const path = require('path');

module.exports = {
  entry: './src/index.js',
  output: {
    filename: 'main.js',
    path: path.resolve(__dirname, 'dist'),
  },
};
```

webpack - Configuration

src/index.js

```
+ import _ from 'lodash';
+
function component() {
  const element = document.createElement('div');

- // Lodash, currently included via a script, is required for this line to work
  element.innerHTML = _.join(['Hello', 'webpack'], ' ');

  return element;
}

document.body.appendChild(component());
```

dist/index.html

```
<!doctype html>
<html>
  <head>
    <title>Getting Started</title>
-   <script src="https://unpkg.com/lodash@4.16.6"></script>
  </head>
  <body>
-   <script src=".src/index.js"></script>
+   <script src="main.js"></script>
  </body>
</html>
```

webpack - Configuration

package.json

```
{  
  "name": "webpack-demo",  
  "version": "1.0.0",  
  "description": "",  
  "scripts": {  
    -  "test": "echo \\\"Error: no test specified\\\" && exit 1"  
    +  "test": "echo \\\"Error: no test specified\\\" && exit 1",  
    +  "build": "webpack"  
  },  
  "keywords": [],  
  "author": "",  
  "license": "ISC",  
  "devDependencies": {  
    "webpack": "^4.20.2",  
    "webpack-cli": "^3.1.2"  
  },  
  "dependencies": {  
    "lodash": "^4.17.5"  
  }  
}
```

- At its core, **webpack** is a *static module bundler* for modern JavaScript applications.
 - When webpack processes your application, it internally builds a **dependency graph** which maps every module your project needs and generates one or more **bundles**.
- What is a webpack Module
 - webpack **modules** can express their **dependencies** in a variety of ways. A few examples are:
 - An ES2015 **import** statement
 - A CommonJS **require()** statement
 - An AMD **define** and **require** statement
 - An **@import** statement inside of a **css/sass/less** file.
 - An image url in a stylesheet **url(...)** or HTML **** file.

- Dependency Graph
 - Any time one file depends on another, webpack treats this as a *dependency*.
 - This allows webpack to take non-code assets, such as **images** or **web fonts**, and also provide them as *dependencies* for your application.
- When webpack processes your application,
 - it starts from a list of modules defined on the command line or in its config file.
 - Starting from these *entry points*, webpack recursively builds a *dependency graph* that includes every module your application needs, then bundles all of those modules into a small number of **bundles** - often, just one - to be loaded by the browser.

- Entry

- An **entry point** indicates which module webpack should use to begin building out its internal dependency graph. webpack will figure out which other modules and libraries that entry point depends on (directly and indirectly).
- By default its value is `./src/index.js`, but you can specify a different (or multiple entry points) by setting an entry property in **the webpack configuration**.
- For example:

webpack.config.js

```
module.exports = {
  entry: './path/to/my/entry/file.js'
};
```

- Out
 - The **output** property tells webpack where to emit the *bundles* it creates and how to name these files. It defaults to `./dist/main.js` for the main output file and to the `./dist` folder for any other generated file.
 - For example:

webpack.config.js

```
const path = require('path');
module.exports = {
  entry: './path/to/my/entry/file.js',
  output: {
    path: path.resolve(__dirname, 'dist'),
    filename: 'my-first-webpack.bundle.js'
  }
};
```

- Loaders
 - Out of the box, webpack only understands **JavaScript** and **JSON** files.
 - **Loaders** allow webpack to process **other types of files** and convert them into valid modules that can be consumed by your application and added to the dependency graph.
 - At a high level, **loaders** have two properties in your webpack configuration:
 - The **test** property identifies which file or files should be transformed.
 - The **use** property indicates which loader should be used to do the transforming.
 - For example:

webpack.config.js

```
const path = require('path');
module.exports = {
  output: { filename: 'my-first-webpack.bundle.js' },
  module: {
    rules: [
      { test: /\.txt$/, use: 'raw-loader' }
    ]
  }
};
```

- Plugins
 - **Plugins** can be leveraged to perform a wider range of tasks like bundle optimization, asset management and injection of environment variables.
 - For example:

webpack.config.js

```
const HtmlWebpackPlugin = require('html-webpack-plugin'); //installed via npm
const webpack = require('webpack'); //to access built-in plugins
module.exports = {
  module: {
    rules: [
      { test: /\.txt$/, use: 'raw-loader' }
    ]
  },
  plugins: [
    new HtmlWebpackPlugin({template: './src/index.html'})
  ]
};
```

- Mode

- By setting the **mode** parameter to either **development**, **production** or **none**, you can enable webpack's built-in optimizations that correspond to each environment. The default value is **production**.
- For example:

webpack.config.js

```
module.exports = {  
  mode: 'production'  
};
```

A Vue Component of Dynamic Table

Vue Table Dynamic

GitHub

Add Row

Delete Row

Add Column

Delete Column

Fixed Header

Toggle Header

Toggle Border

Toggle Stripe

Toggle Highlight

Toggle Select

Toggle Search

Toggle Filter

Toggle Sort

Toggle Edit

Toggle Pagination

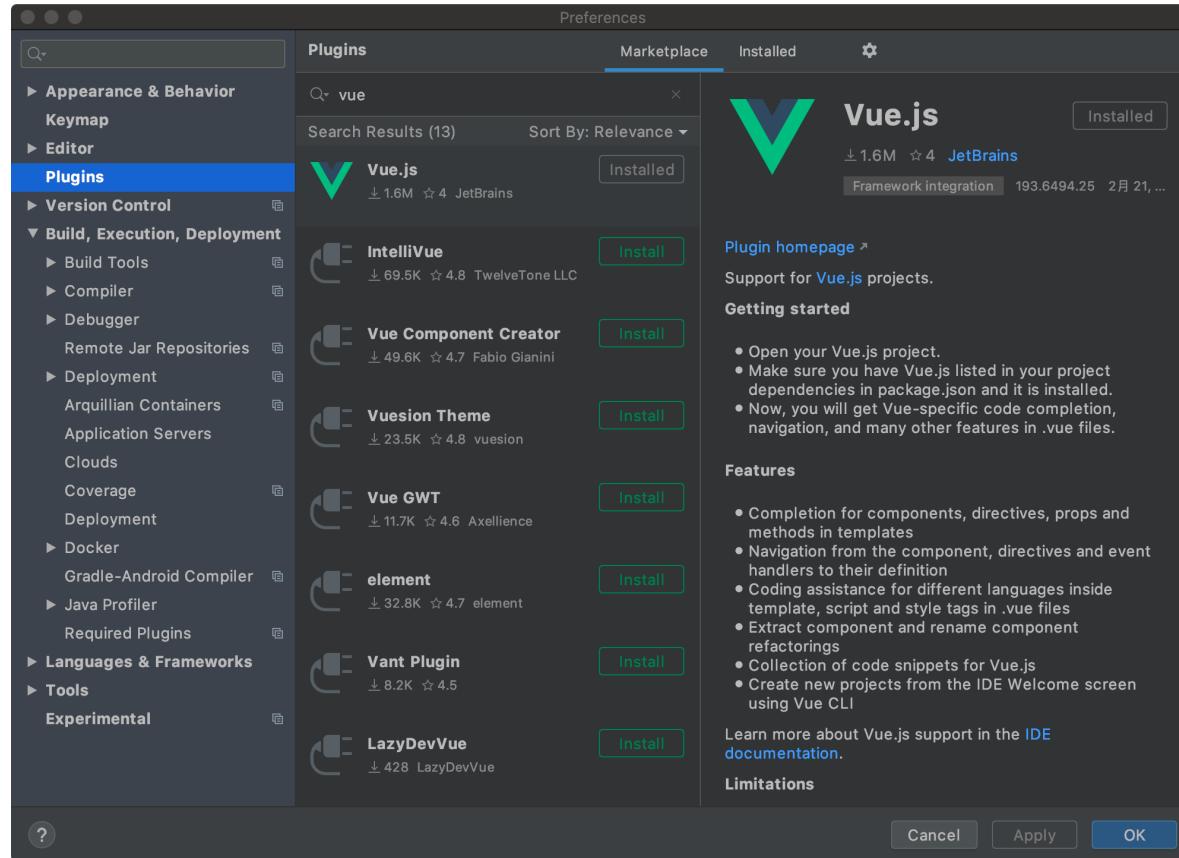
Change Column Width

Search

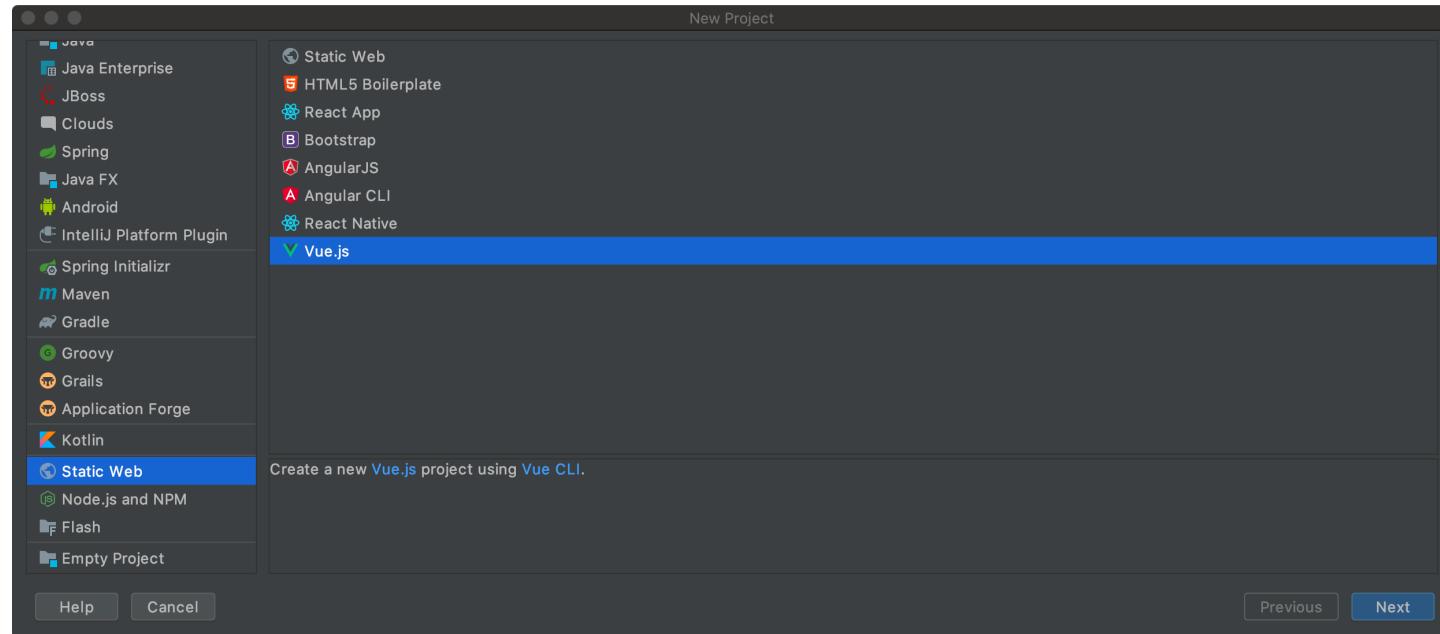
Index	Data1	Data2	Data3
87	90fac-Cell	960bf-Cell	cd02e-Cell
76	8fb3-Cell	6d932-Cell	6dc17-Cell
146	8c1c1-Cell	c1432-Cell	34d59-Cell
93	8b085-Cell	84e6f-Cell	4407d-Cell
26	875e2-Cell	24c57-Cell	3b295-Cell
126	8271b-Cell	34586-Cell	30736-Cell
141	823a5-Cell	fe027-Cell	a9861-Cell
117	817b3-Cell	344bc-Cell	623dd-Cell
64	80915-Cell	e36f5-Cell	b67e6-Cell
98	7b9e2-Cell	8e9a6-Cell	feb17-Cell
36	7b85a-Cell	d8b53-Cell	8bd8b-Cell
88	78f6d-Cell	3a852-Cell	9f334-Cell
56	78ebf-Cell	41799-Cell	c08c0-Cell
101	73410-Cell	dfc92-Cell	aaeb2-Cell
63	6e848-Cell	7dcc4-Cell	5ecaa-Cell

15/page < 1 ... 3 4 5 6 7 ... 10 >

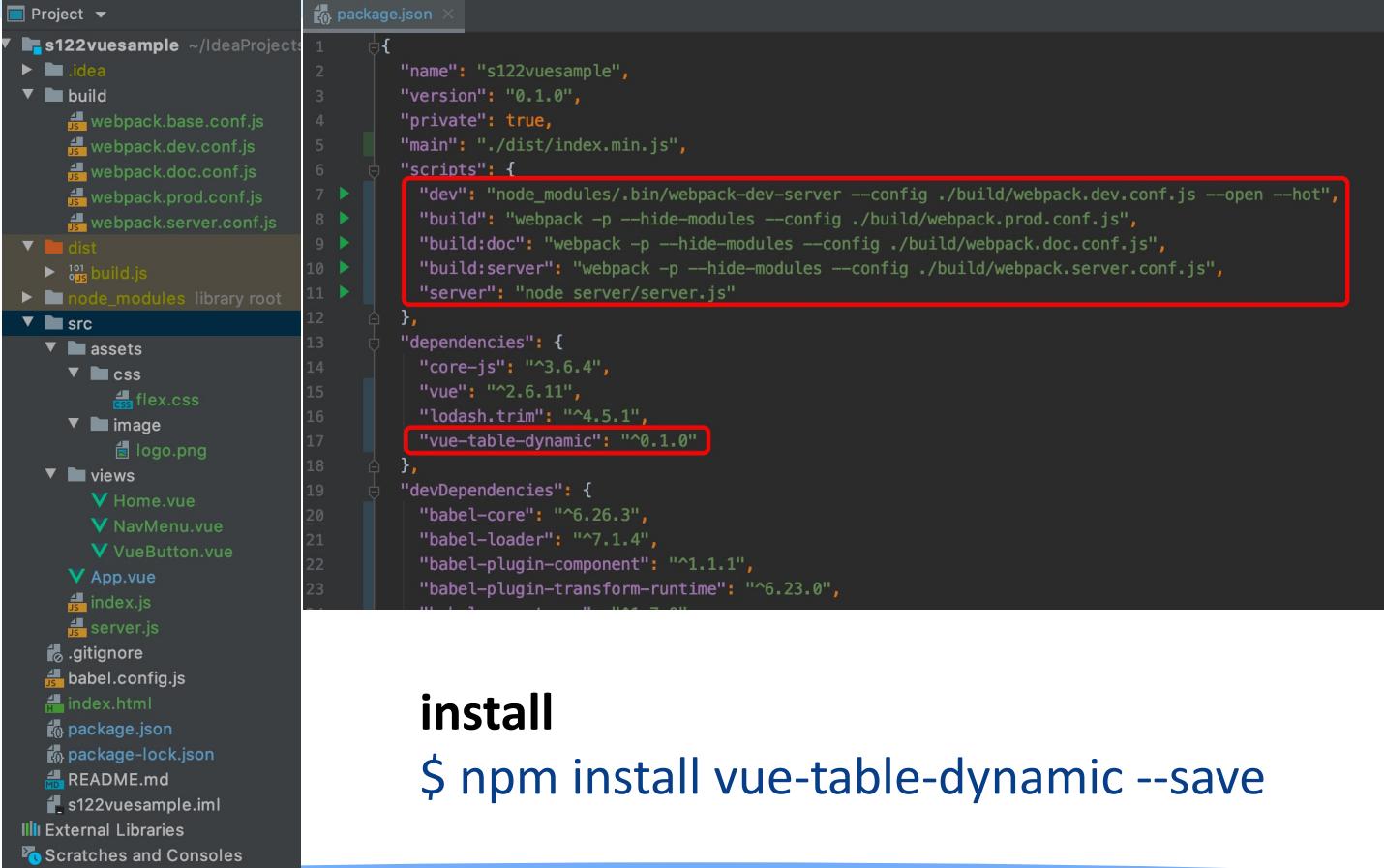
Install Vue Plugin



Create Vue Project



工程结构 & package.json



The screenshot shows a Java IDE interface with two main panes. The left pane displays the project structure under 'Project'. It includes a 'build' folder containing several webpack configuration files (base.conf.js, dev.conf.js, doc.conf.js, prod.conf.js, server.conf.js), a 'dist' folder with a build.js file, a 'node_modules' folder (labeled as 'library root'), and a 'src' folder containing 'assets' (css and image folders with flex.css and logo.png), and 'views' (Home.vue, NavMenu.vue, VueButton.vue, App.vue, index.js, server.js). The right pane shows the 'package.json' file with its code content.

```
1 {  
2   "name": "s122vuesample",  
3   "version": "0.1.0",  
4   "private": true,  
5   "main": "./dist/index.min.js",  
6   "scripts": {  
7     "dev": "node_modules/.bin/webpack-dev-server --config ./build/webpack.dev.conf.js --open --hot",  
8     "build": "webpack -p --hide-modules --config ./build/webpack.prod.conf.js",  
9     "build:doc": "webpack -p --hide-modules --config ./build/webpack.doc.conf.js",  
10    "build:server": "webpack -p --hide-modules --config ./build/webpack.server.conf.js",  
11    "server": "node server/server.js"  
12  },  
13  "dependencies": {  
14    "core-js": "^3.6.4",  
15    "vue": "^2.6.11",  
16    "lodash.trim": "^4.5.1",  
17    "vue-table-dynamic": "^0.1.0"  
18  },  
19  "devDependencies": {  
20    "babel-core": "^6.26.3",  
21    "babel-loader": "^7.1.4",  
22    "babel-plugin-component": "^1.1.1",  
23    "babel-plugin-transform-runtime": "^6.23.0",  
24    "vue-table-dynamic": "0.1.0"  
25  }  
}
```

install

\$ npm install vue-table-dynamic --save

```
<!DOCTYPE html>
<html>
  <head>
    <meta charset="utf-8">
    <meta content="width=device-width,initial-scale=1,
      user-scalable=no" name="viewport">
    <link rel="shortcut icon" type=image/x-icon href=favicon.png>
    <title>Vue Table Dynamic</title>
  </head>
  <body>
    <div id="app"></div>
    <script src="/dist/build.js"></script>
  </body>
</html>
```

```
import Vue from 'vue'
import App from './App.vue'
import './assets/css/flex.css'

// dev
// import VueTableDynamic from '../../src/index.js'
// prod
import VueTableDynamic from 'vue-table-dynamic'

Vue.use(VueTableDynamic)

Vue.config.productionTip = false

// eslint-disable-next-line no-new
new Vue({
  el: '#app',
  render: h => h(App)
})
```

```
<template>
  <div id="app">
    <home></home>
  </div>
</template>

<script>
  import Home from './views/Home.vue'

  export default {
    name: 'App',
    methods: {
    },
    components: { Home }
  }
</script>
```

```
<template>
  <div class="home">
    <header>
      <nav-menu></nav-menu>
    </header>
    <aside>
      <vuescroll :ops="scrollBarOpts" ref="vuescroll">
        <vue-button class="aside-btns" size="mini" @click="addRow">Add Row</vue-button>
        <vue-button class="aside-btns" size="mini" @click="deleteRow">Delete Row</vue-button>
        <vue-button class="aside-btns" size="mini" @click="addColumn">Add Column</vue-button>
        <vue-button class="aside-btns" size="mini" @click="deleteColumn">Delete Column</vue-button>
        <div class="aside-line"></div>
        <vue-button class="aside-btns" size="mini" @click="fixedHeader">Fixed Header</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleHeader">Toggle Header</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleBorder">Toggle Border</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleStripe">Toggle Stripe</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleHighlight">Toggle Highlight</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleSelect">Toggle Select</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleSearch">Toggle Search</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleFilter">Toggle Filter</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleSort">Toggle Sort</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toggleEdit">Toggle Edit</vue-button>
        <div class="aside-line"></div>
        <vue-button class="aside-btns" size="mini" @click="togglePagination">Toggle Pagination</vue-button>
        <vue-button class="aside-btns" size="mini" @click="toPage">To Random Page</vue-button>
        <div class="aside-line"></div>
        <vue-button class="aside-btns" size="mini" @click="changeColumnWidth">Change Column Width</vue-button>
        <vue-button class="aside-btns" size="mini" @click="changeHeaderHeight">Change Header Height</vue-button>
        <vue-button class="aside-btns" size="mini" @click="changeRowHeight">Change Row Height</vue-button>
      </vuescroll>
    </aside>
    <section>
      <vuescroll :ops="scrollBarOpts" ref="vuescroll">
        <vue-table-dynamic
          :params="params"
          @select="onSelect"
          @select-all="onSelectAll"
          @selection-change="onSelectionChange"
          @row-click="onRowClick"
          @cell-click="onCellClick"
          @download="onDownload"
          ref="table"
        >
      </vue-table-dynamic>
    </vuescroll>
  </section>
  <vue-msg :timeout="2000" :top="100" :right="20" ref="vueMsg"></vue-msg>
</div>
</template>
```

src/views/Home.vue

The screenshot shows a code editor with two tabs: 'Home.vue' and 'VueButton.vue'. The 'Home.vue' tab is active, displaying the following code:

```
52 import NavMenu from './NavMenu.vue'
53 import VueButton from './VueButton.vue'
54 import VueMsg from 'vue-msgs'
55 import vuescroll from 'vuescroll'
56 import { saveAs } from 'file-saver'
57 import { table, getBorderCharacters } from 'table'
58 const cloneDeep = require('lodash.clonedeep')
59
60 const random = (length) => {
61   if (!length > 0 && length < 10) length = 5
62   let num = parseInt(` ${Date.now()} + Math.random() * 10000000`)
63   return num.toString(radix: 16).slice(0 - length)
64 }
65
66 const defaultTableParams = {
67   data: [
68     ['Index', 'Data1', 'Data2', 'Data3']
69   ],
70   header: 'row',
71   height: '',
72   headerHeight: 30,
73   rowHeight: 30,
74   // wordWrap: 'break-word',
75   // whiteSpace: 'normal',
76   // textOverflow: 'clip',
77   border: true,
78   stripe: true,
79   showCheck: true,
80   enableSearch: true,
81   columnWidth: [{column: 0, width: 100}],
82   sort: [0, 1],
83   edit: {},
84   highlight: {},
85   filter: [
86     {column: 0,
87      content: [{text: '> 3', value: 3}, {text: '> 5', value: 5}, {text: '> 7', value: 7}],
88      method: (value, tableCell) => { return tableCell.data > value }
89   },
90   {column: 2,
91    content: [{text: '1-Cell', value: '1-Cell'}, {text: '2-Cell', value: '2-Cell'}, {text: '3-Cell', value: '3-Cell'}],
92    method: (value, tableCell) => { return String(tableCell.data).toLocaleLowerCase().includes(String(value).toLocaleLowerCase()) }
93  },
94  pagination: true,
95  // pageSize: 20,
96  // pageSizes: [5, 15, 30, 50, 100]
97 }
98
99 for (let i = 0; i < 150; i++) {
100   defaultTableParams.data.push([i+1, `${random()}-Cell`, `${random()}-Cell`, `${random()}-Cell`])
101 }
```

```
export default {
  name: 'Home',
  data() {
    return {
      params: cloneDeep(defaultTableParams),
      scrollBarOpts: {
        scrollPanel: { scrollingX: false },
        bar: { background: '#DFDFDF', opacity: 0.8 }
      },
      widthIncrement: 1,
      heightIncrement: 1,
      rowHeightIncrement: 1
    }
  },
}
```

```
methods: {
  addRow () {
    let rowNum = this.params.data.length
    let columnNum = this.params.data[0].length

    if (rowNum >= 200) {
      return this.showMsg('warning', 'The number of rows cannot be more than 200.')
    }

    let newRow = [rowNum]
    for (let i = 1; i < columnNum; i++) {
      newRow.push(`${random()}-Cell`)
    }

    this.params.data.push(newRow)
  },

  deleteRow () {
    let rowNum = this.params.data.length

    if (rowNum <= 1) {
      return this.showMsg('warning', 'The number of rows cannot be less than 1.')
    }

    this.params.data.pop()
  },
}
```

```
toggleHeader () {
  let curr = tableHeaderTypes.indexOf(this.params.header)
  if (curr < 0 || curr === (tableHeaderTypes.length - 1))
    return this.params.header = tableHeaderTypes[0]

  this.params.header = tableHeaderTypes[curr + 1]
},

fixedHeader () {
  if (this.params.height) {
    this.params.height = ''
  } else {
    this.params.height = 170
  }
},
```

```
toggleBorder () {
  this.params.border = !this.params.border
},
toggleStripe () {
  this.params.stripes = !this.params.stripes
},
toggleHighlight () {
  if (Object.keys(this.params.highlight).length > 0) {
    this.params.highlight = {}
  } else {
    this.params.highlight = { column: [-1] }
  }
},
toggleSelect () {
  this.params.showCheck = !this.params.showCheck
},
toggleSearch () {
  this.params.enableSearch = !this.params.enableSearch
},
```

```
VueButton.vue ×  
1  <template>  
2    <button class="vue-button"  
3      ref="vbutton"  
4      @click="handleClick"  
5      :disabled="disabled || loading"  
6      :type="nativeType"  
7      :class="["  
8        type ? 'vue-button--' + type : '',  
9        size ? 'vue-button--' + size : '',  
10       {  
11         'is-disabled': disabled,  
12         'is-loading': loading,  
13         'is-activated': activated  
14       }  
15     ]">  
16      <i :class="icon" v-if="icon"></i>  
17      <span v-if="$slots.default" :class="{hidden: loading, show: !loading}"><slot></slot></span>  
18      <div class="vue-button-loading" v-if="loading">  
19        <i class="iconfont iconloading loading-item"></i>  
20      </div>  
21    </button>  
22  </template>
```

src/views/VueButton.vue

```
VueButton.vue ×  
23  <script>  
24  export default {  
25      name: 'VueButton',  
26      props: {  
27          type: { type: String, default: 'default' },  
28          size: { type: String, default: 'small' },  
29          icon: { type: String, default: '' },  
30          nativeType: { type: String, default: 'button' },  
31          loading: { type: Boolean, default: false },  
32          disabled: { type: Boolean, default: false },  
33          activated: { type: Boolean, default: false }  
34      },  
35      methods: {  
36          handleClick (event) {  
37              this.$emit( event: 'click', event)  
38          },  
39          focus () {  
40              if (this.$refs && this.$refs.vbutton) {  
41                  this.$refs.vbutton.focus()  
42              }  
43          }  
44      }  
45  }  
46  </script>  
47
```

```
V NavMenu.vue ×
19  <script>
20    import logoImg from '../assets/image/logo.png'
21
22  export default {
23    name: 'NavMenu',
24    data () {
25      return {
26        logoImg,
27        logoText: 'Vue Table Dynamic',
28        menus: [
29          {
30            key: 'github',
31            name: 'GitHub',
32          }
33        },
34        methods: {
35          onClick (item) {
36            if (item.key === 'github') {
37              window.open( url: 'https://github.com/TheoXiong/vue-table-dynamic', target: '_blank')
38            }
39          }
40        }
41      }
42    </script>
43
44    <style lang="scss" scoped>
```

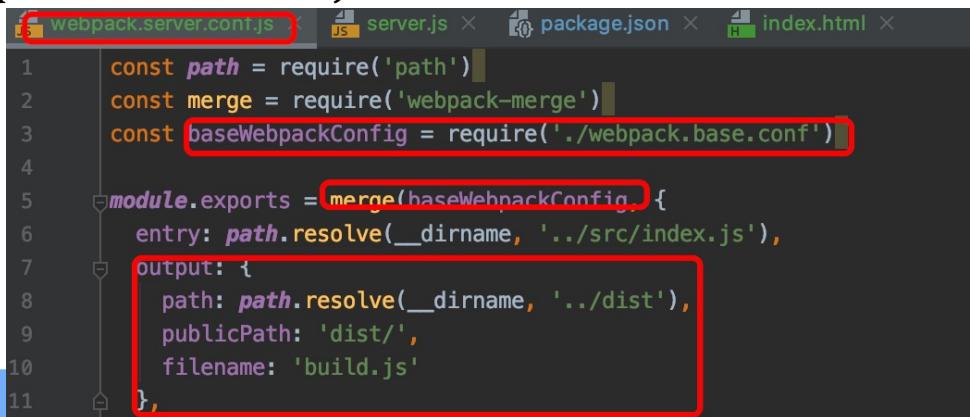
Webpack configurations

- build/ webpack.base.conf.js

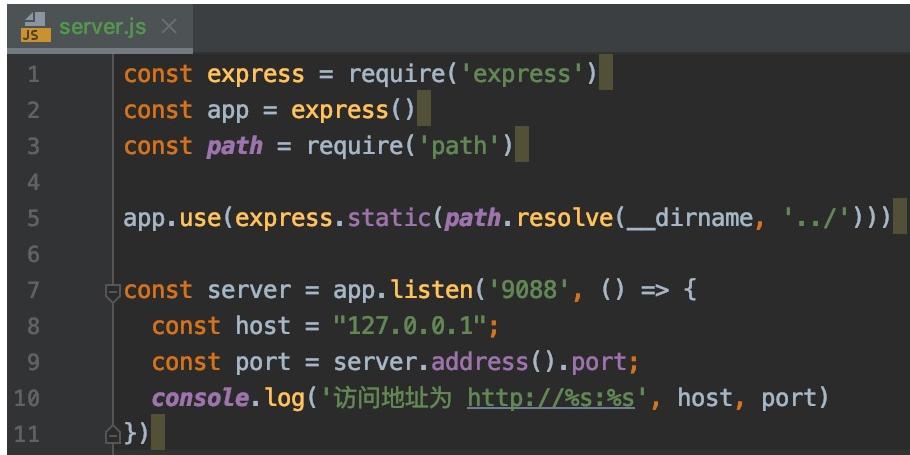


```
JS webpack.base.conf.js ×
1 const path = require('path')
2 const { VueLoaderPlugin } = require('vue-loader')
3
4 module.exports = {
5   module: {
6     rules: [
7       {
8         test: /\.scss$/,
9         use: ['vue-style-loader', 'css-loader', 'sass-loader']
10      },
11    }
12 }
```

- build/webpack.server.conf.js



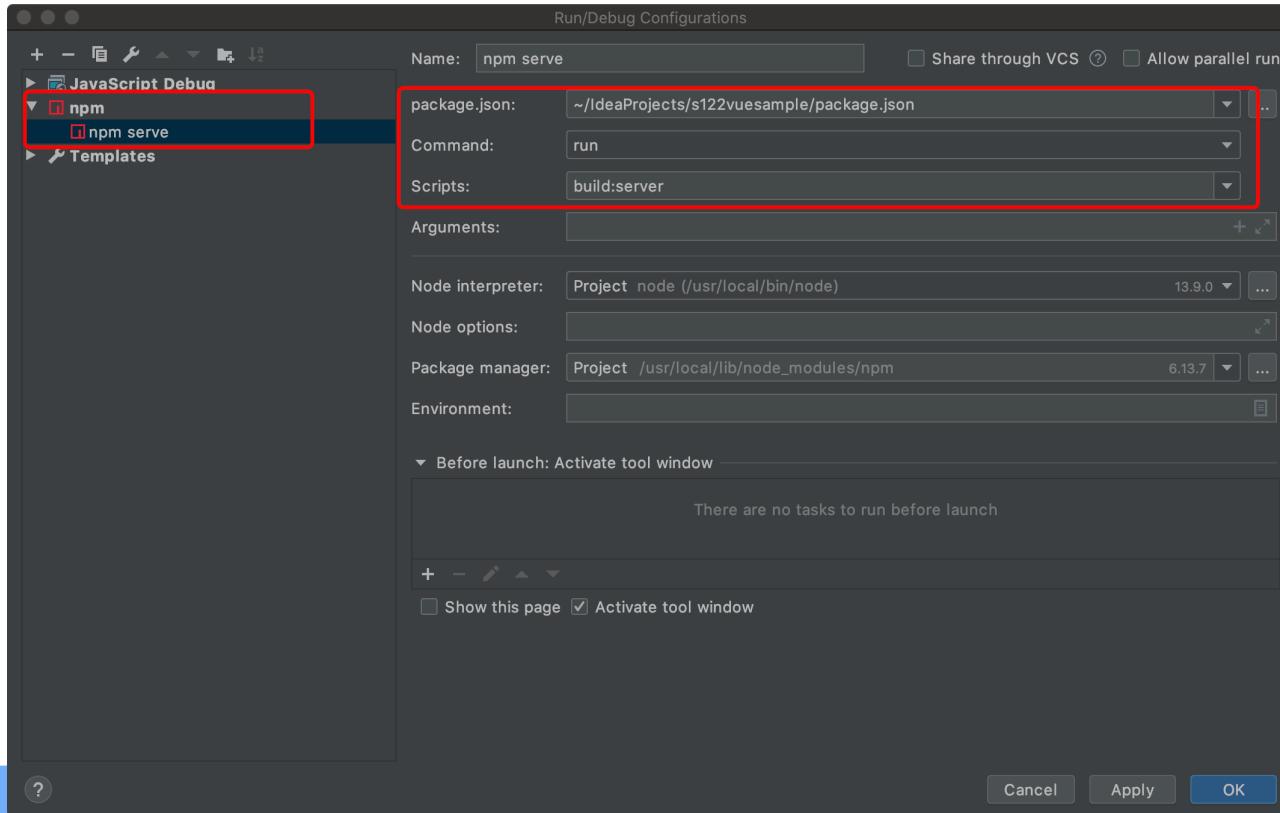
```
JS webpack.server.conf.js × JS server.js × JSON package.json × HTML index.html ×
1 const path = require('path')
2 const merge = require('webpack-merge')
3 const baseWebpackConfig = require('./webpack.base.conf')
4
5 module.exports = merge(baseWebpackConfig, {
6   entry: path.resolve(__dirname, '../src/index.js'),
7   output: {
8     path: path.resolve(__dirname, '../dist'),
9     publicPath: 'dist/',
10    filename: 'build.js'
11  }
12 })
```



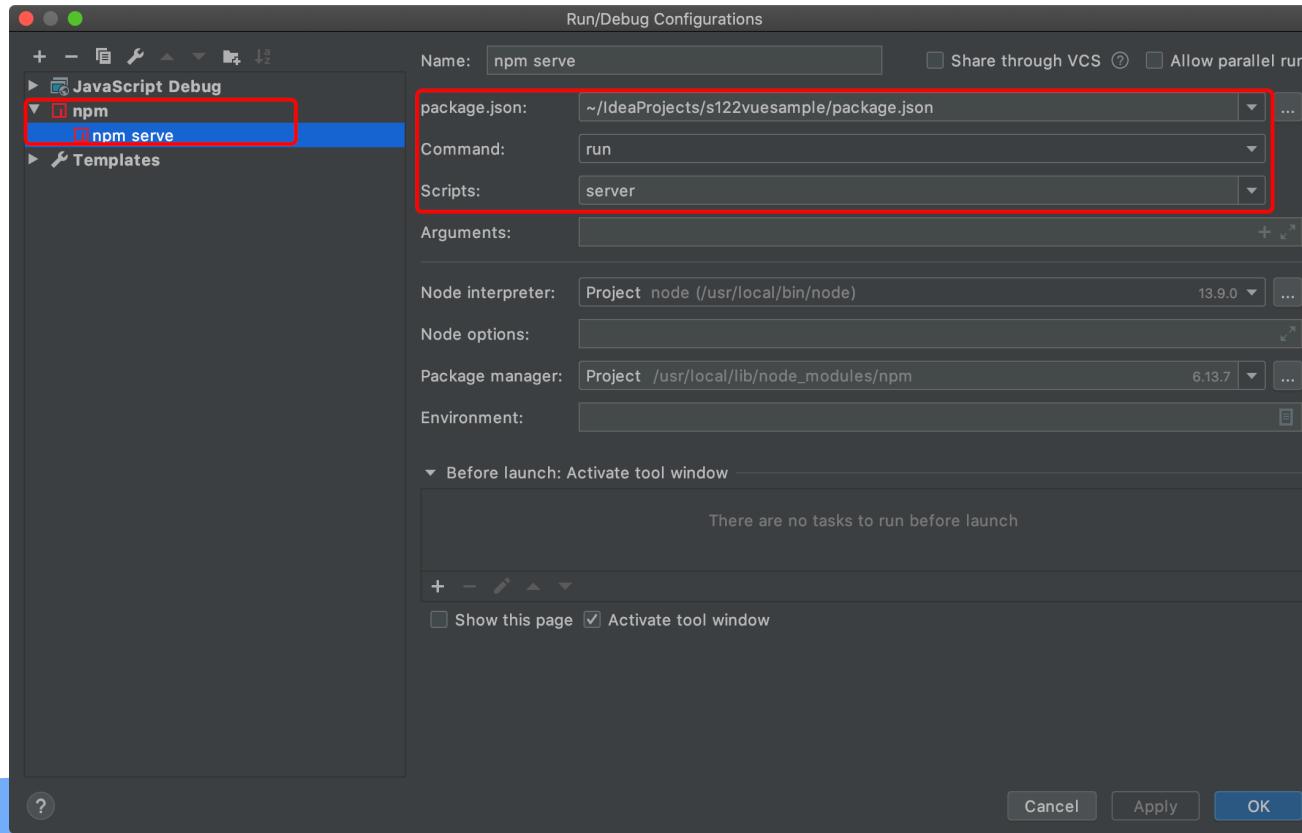
```
JS server.js ×
1 const express = require('express')
2 const app = express()
3 const path = require('path')
4
5 app.use(express.static(path.resolve(__dirname, '../')))
6
7 const server = app.listen('9088', () => {
8     const host = "127.0.0.1";
9     const port = server.address().port;
10    console.log('访问地址为 http://%s:%s', host, port)
11})
```

Build & Run

- npm run build:server



- npm run server



A Vue Component of Dynamic Table

Vue Table Dynamic

GitHub

Add Row
Delete Row
Add Column
Delete Column

Fixed Header
Toggle Header
Toggle Border
Toggle Stripe
Toggle Highlight
Toggle Select
Toggle Search
Toggle Filter
Toggle Sort
Toggle Edit
Toggle Pagination

Change Column Width

<input type="checkbox"/>	Index ▼ ▲	Data1 ▼	Data2 ▼	Data3
<input type="checkbox"/>	87	90fac-Cell	960bf-Cell	cd02e-Cell
<input type="checkbox"/>	76	8fb3-Cell	6d932-Cell	6dc17-Cell
<input type="checkbox"/>	146	8c1c1-Cell	c1432-Cell	34d59-Cell
<input type="checkbox"/>	93	8b085-Cell	84e6f-Cell	4407d-Cell
<input type="checkbox"/>	26	875e2-Cell	24c57-Cell	3b295-Cell
<input type="checkbox"/>	126	8271b-Cell	34586-Cell	30736-Cell
<input checked="" type="checkbox"/>	141	823a5-Cell	fe027-Cell	a9861-Cell
<input type="checkbox"/>	117	817b3-Cell	344bc-Cell	623dd-Cell
<input type="checkbox"/>	64	80915-Cell	e36f5-Cell	b67e6-Cell
<input type="checkbox"/>	98	7b9e2-Cell	8e9a6-Cell	feb17-Cell
<input checked="" type="checkbox"/>	36	7b85a-Cell	d8b53-Cell	8bd8b-Cell
<input type="checkbox"/>	88	78f6d-Cell	3a852-Cell	9f334-Cell
<input type="checkbox"/>	56	78ebf-Cell	41799-Cell	c08c0-Cell
<input type="checkbox"/>	101	73410-Cell	dfc92-Cell	aaeb2-Cell
<input type="checkbox"/>	63	6e848-Cell	7dcc4-Cell	5ecaa-Cell

15/page ▼ < 1 ... 3 4 5 6 7 ... 10 >

- From
 - Vue Router
 - <https://router.vuejs.org/installation.html#direct-download-cdn>
 - <https://github.com/vuejs/vue-router/tree/dev/examples>
- Vue Router is the official router for Vue.js.
 - It deeply integrates with **Vue.js** core to make building Single Page Applications with Vue.js a breeze.
 - Features include:
 - Nested route/view mapping
 - Modular, component-based router configuration
 - Route params, query, wildcards
 - View transition effects powered by Vue.js' transition system
 - Fine-grained navigation control
 - Links with automatic active CSS classes
 - HTML5 history mode or hash mode, with auto-fallback in IE9
 - Customizable Scroll Behavior

- Direct Download / CDN

```
<script src="/path/to/vue.js"></script>
<script src="/path/to/vue-router.js"></script>
```

- npm

```
npm install vue-router
```

```
import Vue from 'vue'
import VueRouter from 'vue-router'

Vue.use(VueRouter)
```

- Dev Build

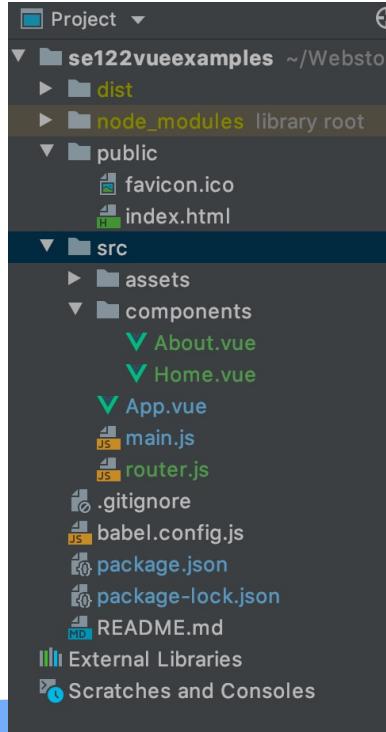
```
git clone https://github.com/vuejs/vue-router.git node_modules/vue-router
cd node_modules/vue-router
npm install
npm run build
```

- 基本概念

- route : 一条路由, 例如
 - `{home按钮=>home内容}`是一条路由, `{about按钮=>about内容}`是另一条路由;
 - routes : 一组路由, 把每一条路由组合起来, 形成一个数组,
 - 例如`[{home按钮=>home内容}, {about按钮=>about内容}]`;
 - router : 一种机制, 管理路由

Vue Router Sample

- vue-router 基本使用
- https://blog.csdn.net/qq_31967569/article/details/91546294



```
Home.vue
<template>
  <div>
    <h1>home</h1>
    <p>{{msg}}</p>
  </div>
</template>
<script>
  export default {
    data () {
      return {
        msg: "我是home 组件"
      }
    }
  }
</script>
```

```
About.vue
<template>
  <div>
    <h1>about</h1>
    <p>{{msg}}</p>
  </div>
</template>
<script>
  export default {
    data () {
      return {
        msg: "我是about 组件"
      }
    }
  }
</script>
```

Vue Router Sample

App.vue

```
<template>
  <div id="app">
    
    <header>
      <!-- router-link 定义点击后导航到哪个路径下 -->
      <router-link to="/home">Home</router-link>
      <router-link to="/about">About</router-link>
    </header>
    <!-- 对应的组件内容渲染到router-view中 -->
    <router-view></router-view>
  </div>
</template>

<script>
  export default {
    ...
  }
</script>
```

router.js

```
import Vue from "vue";
import VueRouter from "vue-router";

// 引入组件
import home from "./components/Home.vue";
import about from "./components/About.vue";
```

```
// 要告诉 vue 使用 vueRouter
Vue.use(VueRouter);
```

```
const routes = [
  {
    path: "/home",
    component: home
  },
  {
    path: "/about",
    component: about
  },
  // 重定向
  {
    path: '/',
    redirect: '/home'
  }
]
```

```
var router = new VueRouter({
  routes
})
export default router;
```

Vue Router Sample

main.js

```
import Vue from 'vue'  
import App from './App.vue'  
  
// 引入路由  
import router from "./router.js" // import  
router 的router一定要小写，不要写成  
Router, 否则报 can't match的报错  
new Vue({  
  el: '#app',  
  router, // 注入到根实例中  
  render: h => h(App)  
})
```

[Home](#)

[About](#)

home

我是home 组件

[Home](#)

[About](#)

about

我是about组件

Dynamic Route Matching

router.js

```
const routes = [
  {
    path: "/home",
    component: home
  },
  {
    path: "/about",
    component: about
  },
  /*新增user路径，配置了动态的id*/
  {
    path: "/user/:id",
    component: user
  },
  // 重定向
  {
    path: '/',
    redirect: '/home'
  }
]
```

localhost:8080/#/user/123



[Home](#)
[About](#)
[User123](#)
[User456](#)

User

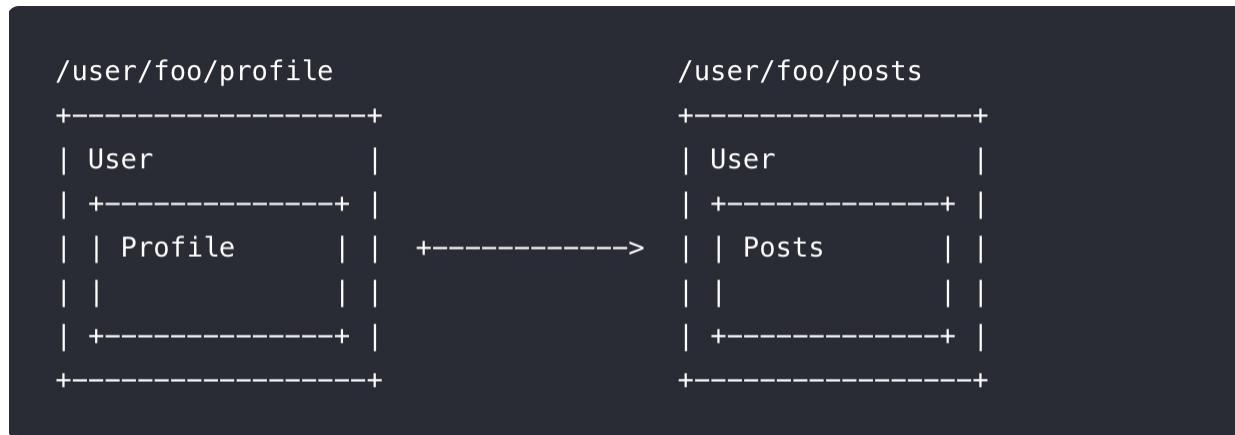
我是user组件, 动态部分是123

Dynamic Route Matching

user.vue

```
<template>
  <div>
    <h1>User</h1>
    <div>我是user组件, 动态部分是{{dynamicSegment}}</div>
  </div>
</template>
<script>
  export default {
    data() {
      return {
        dynamicSegment: ''
      }
    },
    watch: {
      $route(to, from) {
        // to表示的是你要去的那个组件, from 表示的是你从哪个组件过来的,
        // 它们是两个对象, 你可以把它打印出来, 它们也有一个param 属性
        console.log(to);
        console.log(from);
        this.dynamicSegment = to.params.id
      }
    }
  }
</script>
```

- Real app UIs are usually composed of components that are nested multiple levels deep.
 - It is also very common that the segments of a URL corresponds to a certain structure of nested components



Nested Routes

Home.vue

```
<template>
  <div>
    <h1>home</h1>
    <p>{{msg}}</p>
    <!-- router-link 的to属性要注意，路由是先进入到home
        然后才进入相应的子路由如 phone，所以书写时要把 home 带上 -->
    <p>
      <router-link to="/home/phone">手机</router-link>
      <router-link to="/home/tablet">平板</router-link>
      <router-link to="/home/computer">电脑</router-link>
    </p>
    <router-view></router-view>
  </div>
</template>
<script>
  export default {
    data () {
      return {
        msg: "我是home 组件"
      }
    }
  }
</script>
```

Nested Routes

router.js

```
const routes = [
  {
    path: "/home",
    // 下面这个属性也不少，因为，我们是先进入home页面，才能进入子路由
    component: home,
    // 子路由
    children: [
      {
        path: "phone",
        component: phone
      },
      {
        path: "tablet",
        component: tablet
      },
      {
        path: "computer",
        component: computer
      },
      // 当进入到home时，下面的组件显示
      {
        path: "",
        component: phone
      }
    ]
}
```

localhost:8080/#/home/phone



Home
About
User123
User456

home

我是home 组件
手机平板电脑

Phone

我是phone组件

localhost:8080/#/home/tablet



Home
About
User123
User456

home

我是home 组件
手机平板电脑

Tablet

我是Tablet组件



- *Web*开发技术
- *Web Application Development*

Thank You!