



第一节

vue-cli 安装

- <https://cn.vuejs.org/v2/guide/installation.html>
- <https://github.com/vuejs/vue-cli>

安装

- 安装**vue-cli**脚手架构建工具，**npm install @vue-cli -g**，安装完成之后输入 **vue -V**（注意这里是大写**npm install vue-cli**的“V”） 如果出现相应的版本号，则说明安装成功
- 在硬盘上找一个文件夹放工程用的,**cd** 目录路径
- **vue create test**项目名
- **cd** 命令进入创建的工程目录，首先**cd projectname**（这里是自己建工程的名字）；
- 启动项目，输入：**npm run serve**

目录结构

```
-- build // 项目构建(webpack)相关代码
|   |-- build.js // 生产环境构建代码
|   |-- check-version.js // 检查node、npm等版本
|   |-- dev-client.js // 热重载相关
|   |-- dev-server.js // 构建本地服务器
|   |-- utils.js // 构建工具相关
|   |-- webpack.base.conf.js // webpack基础配置
|   |-- webpack.dev.conf.js // webpack开发环境配置
|   |-- webpack.prod.conf.js // webpack生产环境配置
-- config // 项目开发环境配置
|   |-- dev.env.js // 开发环境变量
|   |-- index.js // 项目一些配置变量
|   |-- prod.env.js // 生产环境变量
|   |-- test.env.js // 测试环境变量
-- src // 源码目录
|   |-- components // vue公共组件
|   |-- store // vuex的状态管理
|   |-- App.vue // 页面入口文件
|   |-- main.js // 程序入口文件，加载各种公共组件
-- static // 静态文件，比如一些图片，json数据等
|   |-- data // 群聊分析得到的数据用于数据可视化
-- .babelrc // ES6语法编译配置
-- .editorconfig // 定义代码格式
-- .gitignore // git上传需要忽略的文件格式
-- README.md // 项目说明
-- favicon.ico
-- index.html // 入口页面
-- package.json // 项目基本信息
```

第二节

vue-router

vue-router是Vue.js官方的路由插件，它和**vue.js**是深度集成的，适合用于构建单页面应用(SPA)。**vue**的单页面应用是基于路由和组件的，路由用于设定访问路径，并将路径和组件映射起来。传统的页面应用，是用一些超链接来实现页面切换和跳转的。在**vue-router**单页面应用中，则是路径之间的切换，也就是组件的切换。

网站：<https://router.vuejs.org/zh-cn/>

安装：`npm install vue-router`

注意：在**vue-cli**中已经包含了**vue-router**，不需要再安装

```
"dependencies": {  
    "vue": "^2.5.2",  
    "vue-router": "^3.0.1"  
},
```

router-link

新建Test.vue组件，并在App.vue中配置



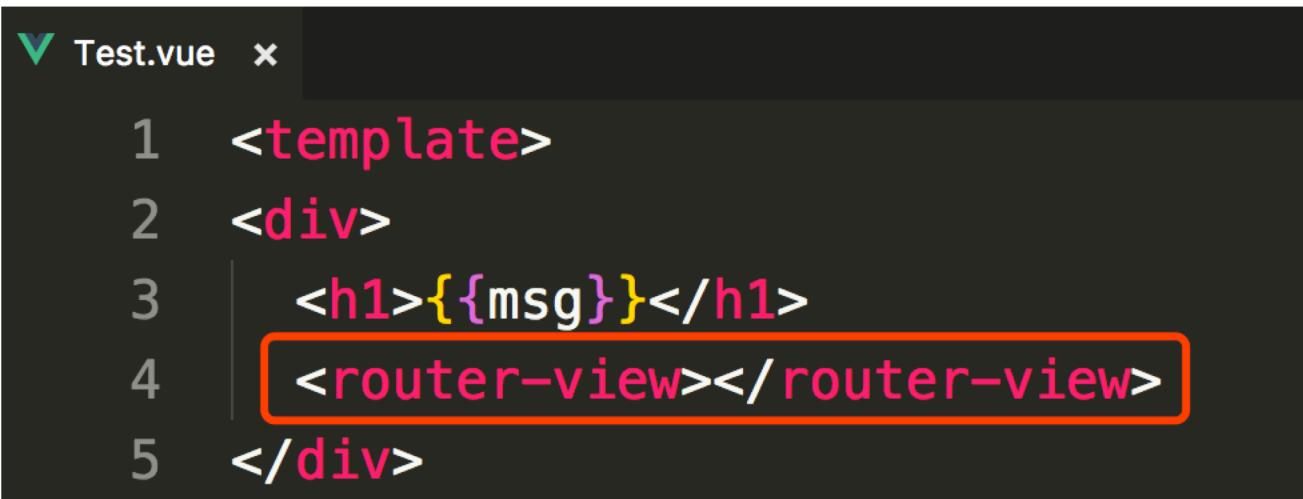
```
V App.vue X
1 <template>
2   <div id="app">
3     
4     <div>
5       <router-link to="/">首页</router-link>
6       <router-link to="/test">测试</router-link>
7     </div>
8     <router-view/>
9   </div>
10 </template>
```

子路由 (1)

① App.vue

```
<router-link to="/">首页</router-link>
<router-link to="/test">测试</router-link>
<router-link to="/test/test1">测试子路由1</router-link>
<router-link to="/test/test2">测试子路由2</router-link>
```

② Test.vue



The screenshot shows a code editor window with a dark theme. The title bar says "Test.vue". The code in the editor is:

```
1 <template>
2 <div>
3   <h1>{{msg}}</h1>
4   <router-view></router-view>
5 </div>
```

The line containing the `<router-view></router-view>` tag is highlighted with a red border.

子路由（2）

- ③ 新建Test1.vue 和 Test2.vue
- ④ index.js中配置子路由



The screenshot shows a code editor window with a dark theme. The file is named 'index.js'. The code defines a route object with a 'children' property, which is highlighted by a red rectangle. This indicates that the code is demonstrating how to define nested routes.

```
JS index.js ×
  15      component: Network
  16    },
  17    {
  18      path: '/test',
  19      name: 'Test',
  20      component: Test,
  21      children: [
  22        {
  23          path: 'test1',
  24          component: Test1
  25        },
  26        {
  27          path: 'test2',
  28          component: Test2
  29        }
  30      ]
  31    }
  32  ]
  33}
```

参数传递params

```
App.vue
Test1.vue
index.js

6 <router-link to="/test">测试</router-link>
7 <router-link :to="{name: 'test1', params: {name: 'xiecheng', age: 30}}">测试子路由1</router-link>
8 <router-link to="/test/test2">测试子路由2</router-link>
```

```
Test1.vue

2 <div>
3   <h1>{{msg}}</h1>
4   <h1>姓名: {{$route.params.name}}, 年龄: {{$route.params.age}}</h1>
5 </div>
6 </template>
```

参数传递query

```
<router-link :to="{path: '/detail', query:{id:25, name:'xx'}}>详情页</router-link>
```

```
<!-- query传过来的参数 在地址栏中会有参数 -->
```

```
{{$route.query.id}}  
{{$route.query.name}}
```

利用URL传参

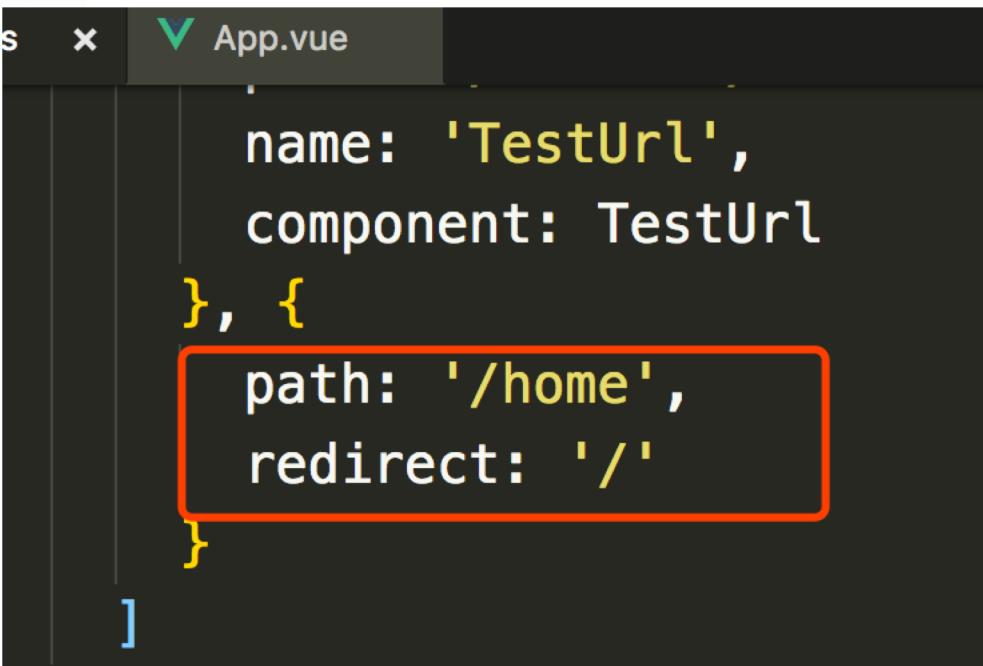
- 创建TestUrl.vue 并在index.js中引入

```
JS index.js x
35
36 }, {
37   path: '/testurl/:userId(\d+)/:userName',
38   name: 'TestUrl',
39   component: TestUrl
40 }
```

```
V App.vue x
<router-link :to="{name:'test1',params:{name:'xiecheng', age: 30} }>测试子路由1</router-link>
<router-link to="/test/test2">测试子路由2</router-link>
<router-link to="/testurl/5/zhangsan">测试URL传参</router-link>
<p>{$route.name}</p>
</div>
```

```
V TestUrl.vue x
1 <template>
2   <div>
3     <h1>用户ID: {{$route.params.userId}}</h1>
4     <h1>用户名称: {{$route.params.userName}}</h1>
5   </div>
6 </template>
```

重定向



A screenshot of a code editor showing a portion of `App.vue`. The code defines a route named 'TestUrl' with component 'TestUrl'. It then defines another route with path '/home' and redirect '/'. This second route definition is highlighted with a red rectangle.

```
name: 'TestUrl',
component: TestUrl
}, {
  path: '/home',
  redirect: '/'
]
```



A screenshot of a code editor showing a portion of `App.vue`. It contains a `<router-link>` component with `to="/testurl/5/zhangsan"` and a comment "测试URL传参". Below it is another `<router-link>` component with `to="/home"` and the word "redirect". This second `<router-link>` component is highlighted with a red rectangle. The template also includes a `<p>{{ $route.name }}</p>` component.

```
<router-link to="/testurl/5/zhangsan">测试URL传参</router-link>
<router-link to="/home">redirect</router-link>
<p>{{ $route.name }}</p>
```

重定向带参数

```
JS index.js x
42     redirect: '/'
43 }, {
44     path: '/redirectparam/:userId(\d+)/:userName',
45     redirect: '/testurl/:userId(\d+)/:userName'
46 }
```

```
V App.vue x
<router-link to="/home">redirect</router-link>
<router-link to="/redirectparam/6/lisi">redirectparam</router-link>
```

alias别名

```
JS index.js  x  
  
46      }, {  
47        path: '/test1',  
48        component: Test1,  
49        alias: '/abc'  
50      }
```

```
V App.vue  x  
  
<router-link to="/redirectparam/6/lisi">redirectpa  
<router-link to="/abc">alias</router-link>
```

- **redirect:** 仔细观察URL, redirect是直接改变了url的值, 把url变成了真实的path路径。
- **alias:** URL路径没有变, 这种情况更友好, 让用户知道自己访问的路径, 只是改变了<router-view>中的内容。

路由过度动画

- **fade-enter**: 进入过渡的开始状态，元素被插入时生效，只应用一帧后立刻删除。
- **fade-enter-active**: 进入过渡的结束状态，元素被插入时就生效，在过渡过程完成后移除。
- **fade-leave**: 离开过渡的开始状态，元素被删除时触发，只应用一帧后立刻删除。
- **fade-leave-active**: 离开过渡的结束状态，元素被删除时生效，离开过渡完成后被删除。

```
App.vue
```

```
<transition name="fade" mode="out-in">
  <router-view/>
  <!-- <router-view name="view1"/>
  <router-view name="view2"/> -->
</transition>
```

```
App.vue
```

```
}
```

```
.fade-enter {
  opacity: 0;
}
```

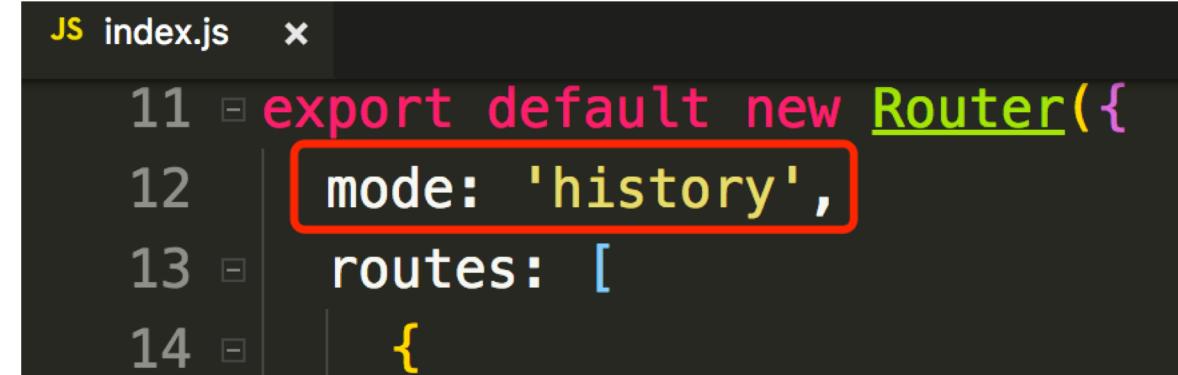
```
.fade-leave {
  opacity: 1;
}
```

```
.fade-enter-active {
  transition: opacity 0.5s;
}
```

```
.fade-leave-active {
  opacity: 0;
  transition: opacity 0.5s;
}
```

mode & 404

- **history**去掉URL上的井号
- 默认值: **hash**



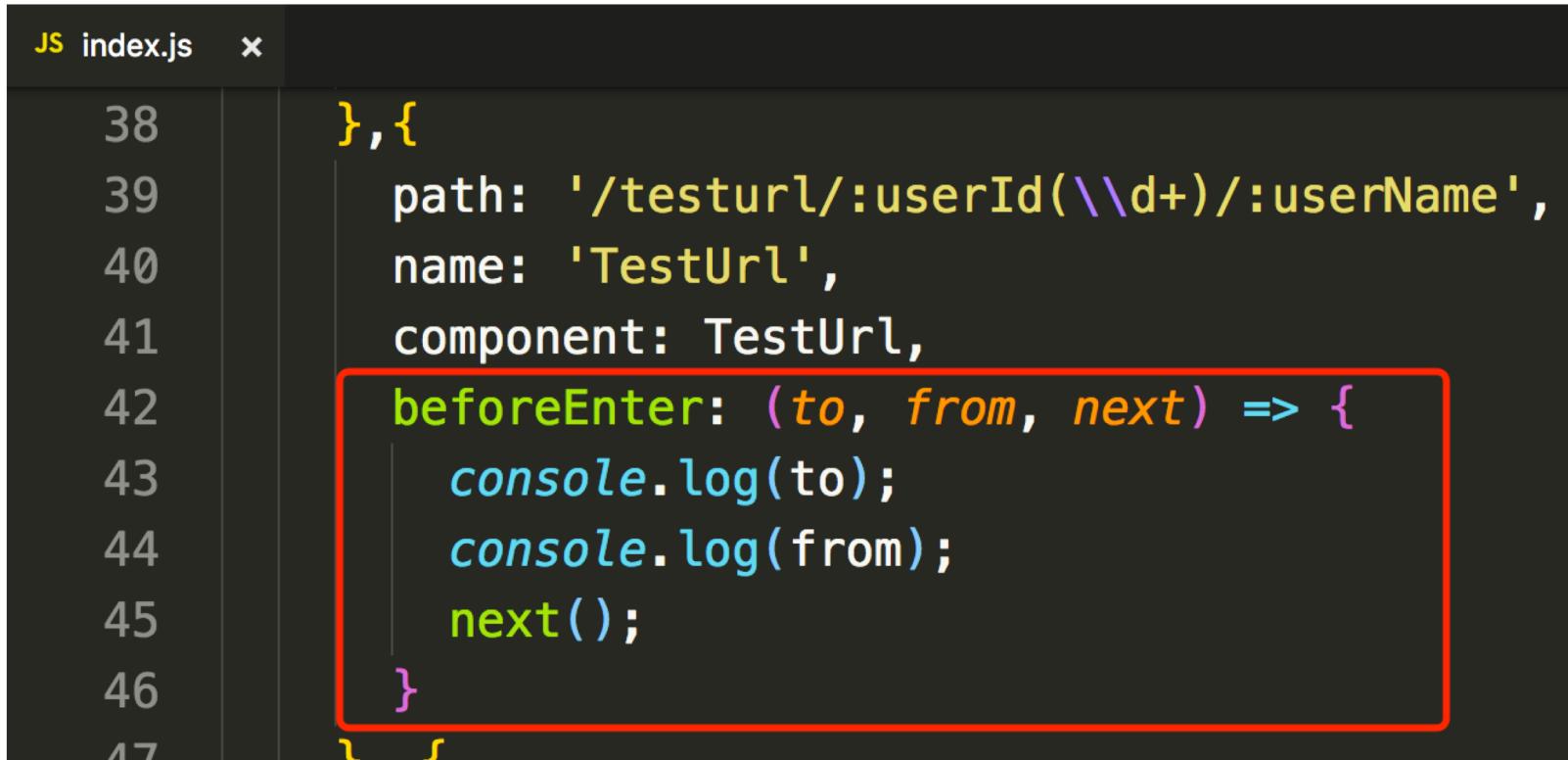
```
JS index.js ×
11 export default new Router({
12   mode: 'history',
13   routes: [
14     {
```

- 处理404 新建Error.vue



```
{
  path: '/*',
  component: error
}
```

路由钩子函数（1）



```
JS index.js x
38 }, {
39   path: '/testurl/:userId(\d+)/:userName',
40   name: 'TestUrl',
41   component: TestUrl,
42   beforeEnter: (to, from, next) => {
43     console.log(to);
44     console.log(from);
45     next();
46   }
47 }
```

在index.js配置文件中配置，可以配置**beforeEnter**钩子

to: 路由将要跳转的路径信息，信息是包含在对象里边的。

from: 路径跳转前的路径信息，也是一个对象的形式。

next: 路由的控制参数，**next(true)**和**next(false)**。

路由钩子函数（2）

在模板中配置：

- **beforeRouteEnter**: 在路由进入前的钩子函数。
- **beforeRouteLeave**: 在路由离开前的钩子函数。

```
▼ HelloWorld.vue ×  
 9  name: 'HelloWorld',  
10  data () {  
11    return {  
12      msg: 'Welcome to Your Vue.js App'  
13    }  
14  },  
15  beforeRouteEnter: (to, from, next) => {  
16    console.log("准备进入路由模板");  
17    next();  
18  },  
19  beforeRouteLeave: (to, from, next) => {  
20    console.log("准备离开路由模板");  
21    next();  
22  }  
23 }  
24 </script>
```

编程式导航

V App.vue x

```
2 <div id="app">
3   
4   <div>
5     <button @click="goBack">后退</button>
6     <button @click="goForward">前进</button>
7     <button @click="goHome">返回首页</button>
8   </div>
```

V App.vue x

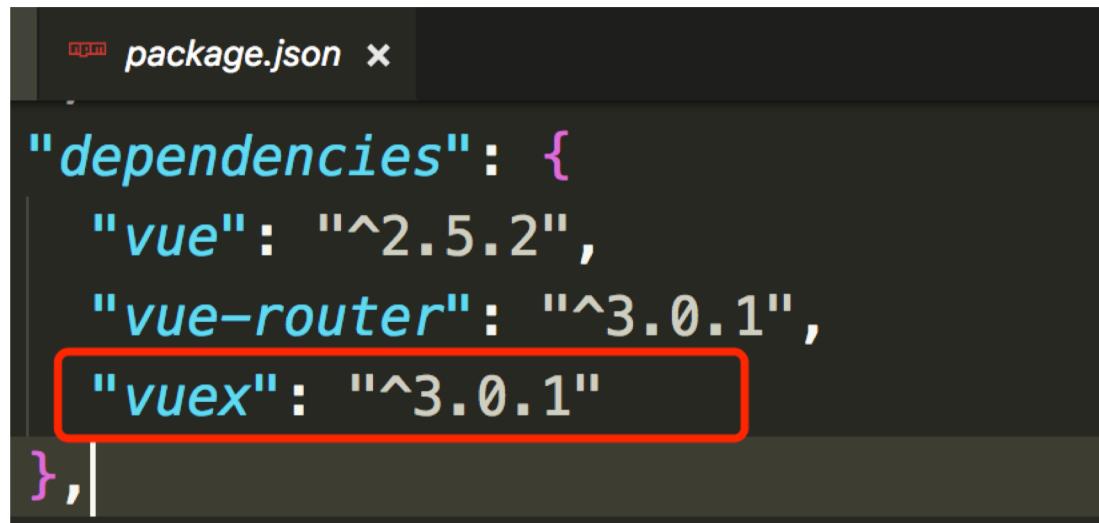
```
30 <script>
31   export default {
32     name: "app",
33     methods: {
34       goBack(){
35         this.$router.go(-1);
36       },
37       goForward(){
38         this.$router.go(1);
39       },
40       goHome(){
41         this.$router.push('/');
42       }
43     }
44   };
```

第三节

vuex

- **Vuex** 是一个专为 **Vue.js** 应用程序开发的状态管理模式。它采用集中式存储管理应用的所有组件的状态，并以相应的规则保证状态以一种可预测的方式发生变化。
- <https://vuex.vuejs.org/zh-cn/intro.html>
- <https://github.com/vuejs/vuex>

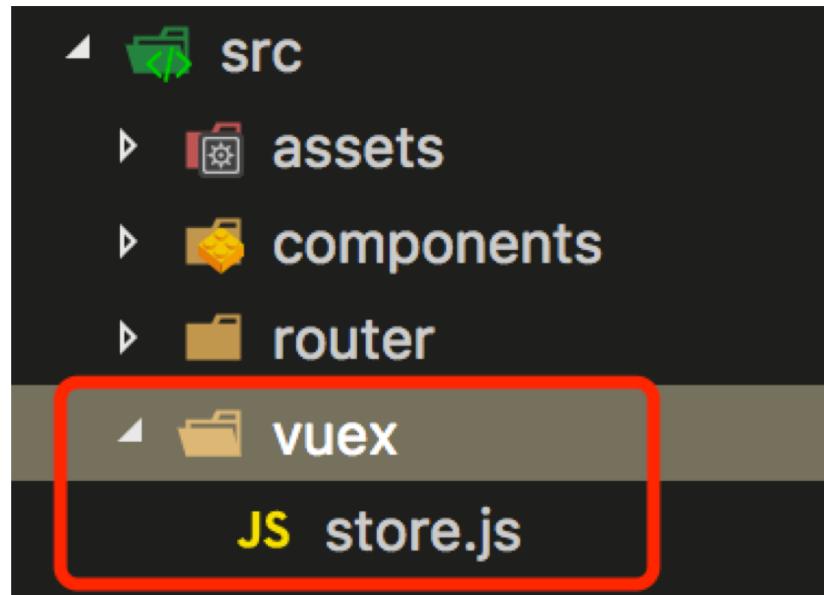
- **npm install vuex --save**



```
npm package.json x

"dependencies": {
  "vue": "^2.5.2",
  "vue-router": "^3.0.1",
  "vuex": "^3.0.1"
},|
```

计数器 (1)



JS store.js x

```
1 import Vue from 'vue';
2 import Vuex from 'vuex';
3 Vue.use(Vuex);

5 const state = {
6   count: 1
7 };

9 const mutations = {
10   add(state) {
11     state.count++;
12   },
13   reduce(state) {
14     state.count--;
15   }
16 };
17
18 export default new Vuex.Store({
19   state,
20   mutations
21 })
```

计数器（2）

```
Count.vue ×  
1 <template>  
2   <div>  
3     <h1>计数器: {{$store.state.count}}</h1>  
4     <button @click="$store.commit('add')">加1</button>  
5     <button @click="$store.commit('reduce')">减1</button>  
6   </div>  
7 </template>  
8 <script>  
9 import store from '@/vuex/store'  
10 export default {  
11   data() {  
12     return {};  
13   },  
14   store  
15 };  
16 </script>
```

state访问状态对象

- ① 通过**computed**的计算属性直接赋值

```
computed:{  
    count(){  
        return this.$store.state.count;  
    }  
}
```

- ② 通过**mapState**的对象来赋值

```
import {mapState} from 'vuex';
```

```
computed:mapState({  
    count:state=>state.count  
})
```

- ③ 通过**mapState**的数组来赋值

```
computed:mapState(["count"])
```

这三种做法的好处是，
可以直接使用插值的形式了 `{{count}}`

mutations修改状态--传值

JS store.js

```
9 const mutations = {
10   add(state, num) {
11     state.count += num;
12   },
13   reduce(state) {
14     state.count--;
15   }
16};
```

Count.vue

```
3 <h1>计数器: {{count}}</h1>
4 <button @click="$store.commit('add', 10)">加1</button>
5 <button @click="$store.commit('reduce')">减1</button>
```

mutations修改状态--直接调用方法

```
Count.vue x
4      <button @click="$store.commit('add', 10)">加1</button>
5      <button @click="reduce">减1</button>
```

```
Count.vue x
10     import { mapState, mapMutations } from "vuex";
```

```
Count.vue x
25     methods: mapMutations(["add", "reduce"])
```

getters计算过滤操作

JS store.js ×

```
18 const getters = {  
19     count: function (state) {  
20         return state.count += 100;  
21     }  
22 }
```

Count.vue ×

```
9 import store from "@/vuex/store";  
10 import { mapState, mapMutations, mapGetters } from "vuex";
```

Count.vue ×

```
24     computed: {  
25         ...mapState(["count"]),  
26         ...mapGetters(["count"])  
27     },
```

actions异步修改状态

https://www.zhihu.com/question/48759748/answer/112823337?from=profile_answer_card

JS store.js x

```
23
24 const actions ={
25   addAction({commit}){
26     commit('add',10);
27   },
28   reduceAction({commit}){
29     commit('reduce');
30   }
31 }
```

Count.vue x

```
6 <p>
7   <button @click="addAction">+</button>
8   <button @click="reduceAction">-</button>
9 </p>
```

Count.vue x

```
32 | methods: {
33 |   ...mapMutations(["add", "reduce"]),
34 |   ...mapActions(["addAction", "reduceAction"])
35 |
36 };
```

module模块组

```
JS store.js ×  
36  
37 const moduleA = {  
38   state,  
39   mutations,  
40   getters,  
41   actions  
42 }  
43 export default new Vuex.Store({  
44   modules: {  
45     a: moduleA  
46   }  
47 })
```

```
▼ Count.vue ×  
<h1>{{store.state.a.count}}</h1>
```



A wide-angle aerial photograph of the Shanghai skyline at dusk. The city is illuminated by numerous skyscrapers and streetlights, with the distinctive spherical structure of the Oriental Pearl Tower standing out on the right. The Huangpu River flows through the center, reflecting the city lights. The sky is a mix of blue and orange, suggesting the transition from day to night.

Thank you

谢

谢

观

看