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WEB APP HTML CSS JavaScript —

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1990 - 2004

- `□□□□`
- `js□□`
- `□□□□□`

**web2.0**  
**2004 - 2008**

- `□□□□□□□`
- `Ajax□□□□□□□`
- `□□:jQuery`

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2008 - 2015

- V8
- Node.js
- MVVM/MVC
- /SPA

□□□□□  
2015 - 2020

- 10개의 블록을 OS가 관리
- 10개의 블록을 관리

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2020 ~ ?

- 
- 
- 
- serverless
- lowcode/nocode
- WebAssembly



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The only constant in the world is change.

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- `ReactDOM.render(

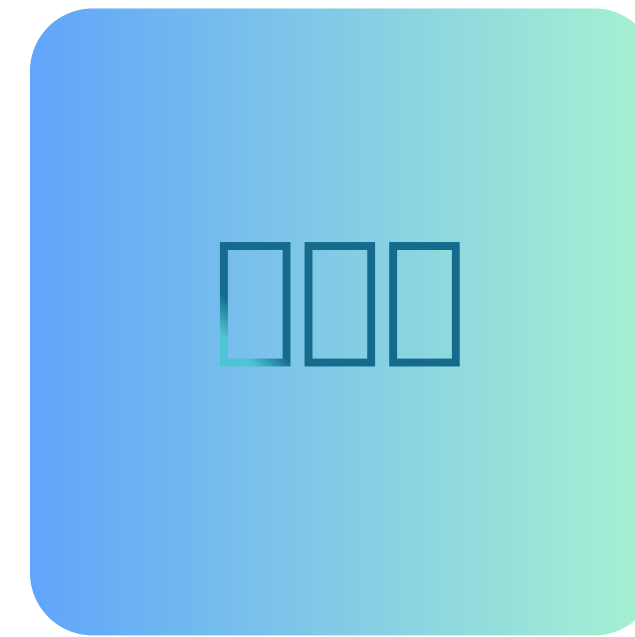
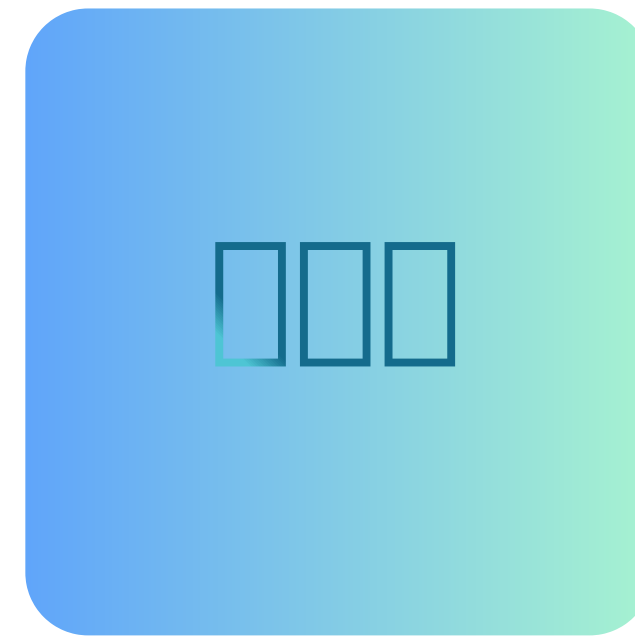
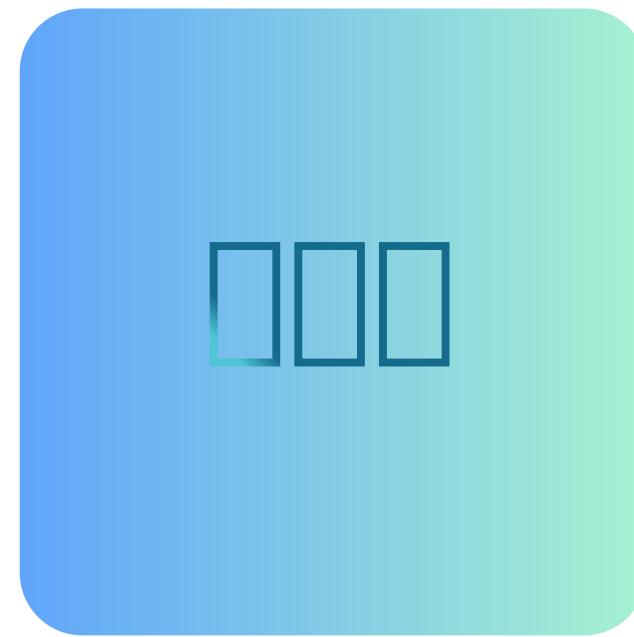
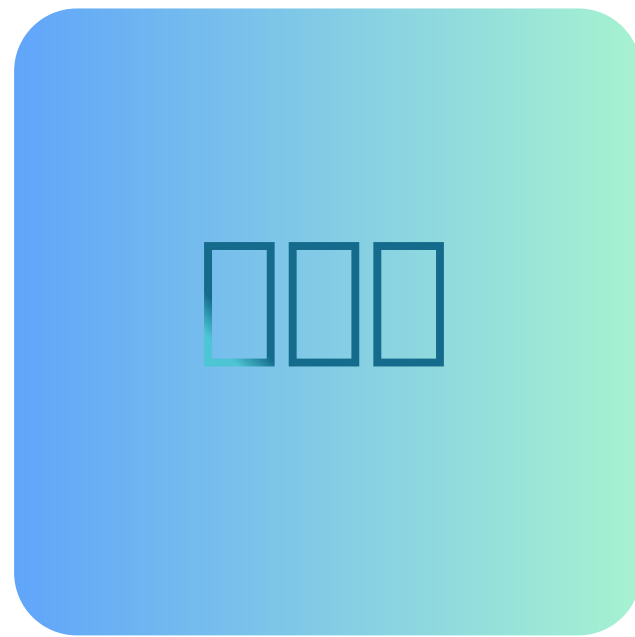
JS`
- `WebApp`
-



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[illegible]

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# webpack - 入门

webpack 是一个模块打包工具。它会将你的模块（第三方 + 你自己写的）打包成一个或多个 bundle。

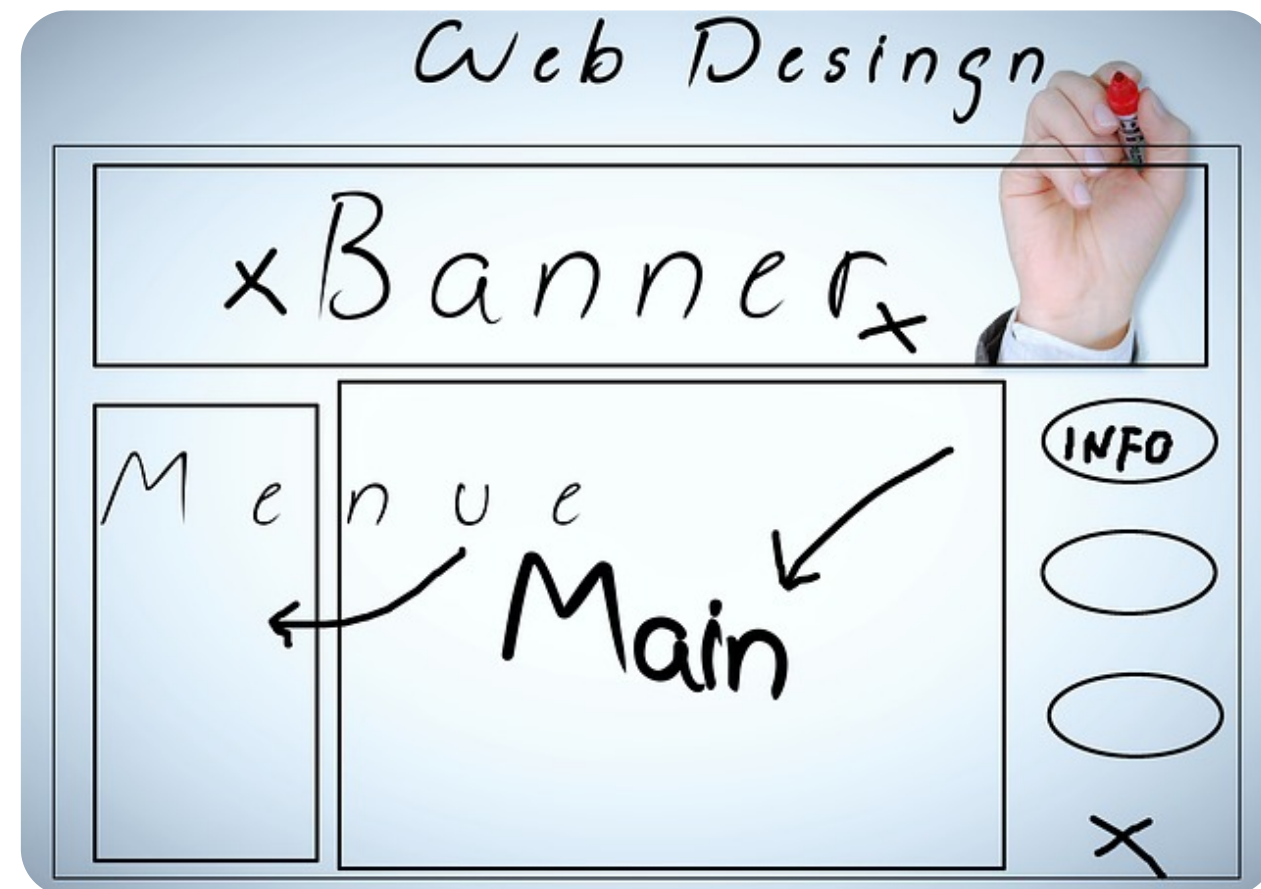


- JS 打包方案CommonJS、AMD、CMD 打包 ES6 Module 打包
- CSS 打包方案Sass、Less、Stylus、BEM、CSS Modules 打包方案BEM 打包方案CSS Modules 打包方案JS 打包方案打包方案JS 打包方案 CSS 打包方案 Vue 打包 style scoped 打包
- 打包方案打包方案打包方案打包方案打包方案打包方案打包方案打包方案CSS 打包方案打包方案JS 打包方案打包方案



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A horizontal number line with arrows at both ends, labeled from 0 to 100 in increments of 10. A blue arrow starts at the number 50 and points to the number 60.

[illegible]

- 项目初始化;
- 项目代码规范制定(ESLint+StyleLint 等);
- 项目部署;
- 项目代码规范制定(BEM+Sass+Less+Stylus+CSS Modules 等);
- git flow 项目分支管理;
- code review;

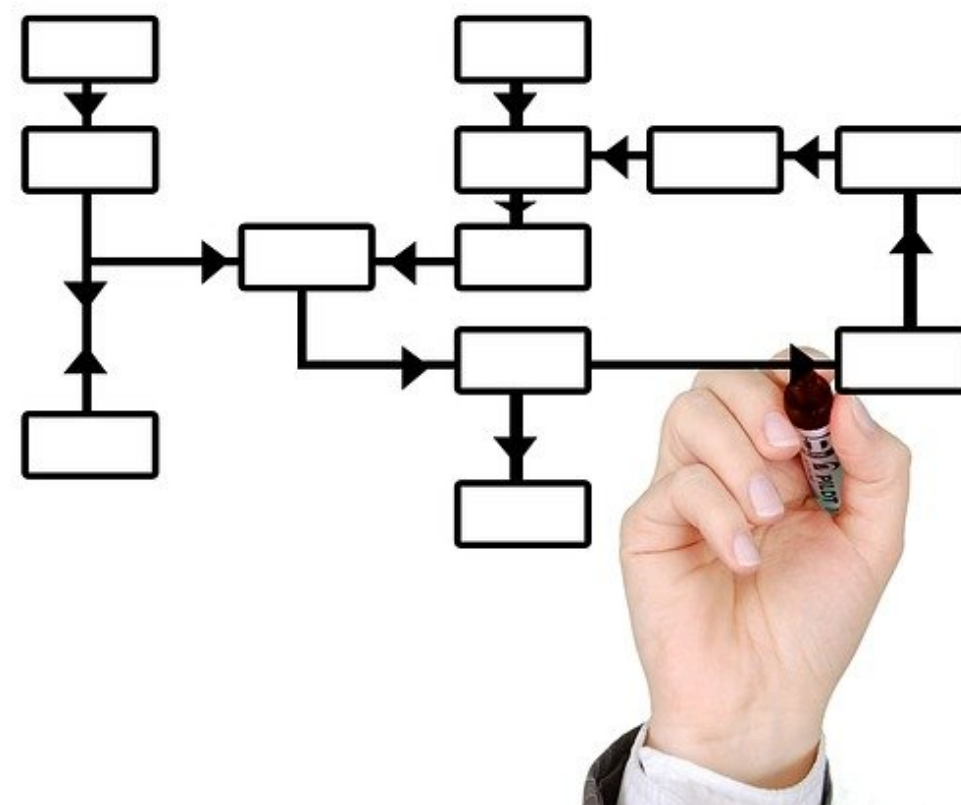
- [illegible]

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- `BEM` `Sass` `Less` `Stylus` `CSS Modules` `...`;

- git flow □□□□□□□□□□□□□□□□□□;

- code review;

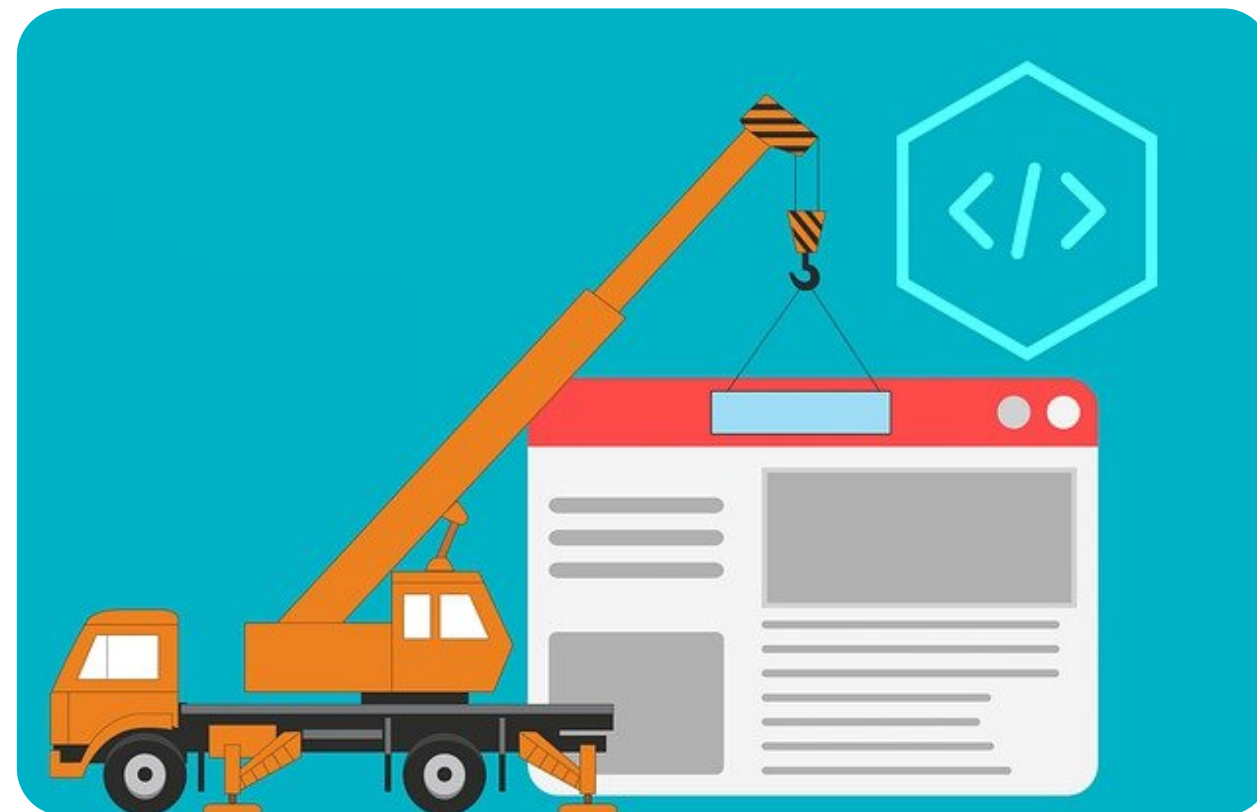




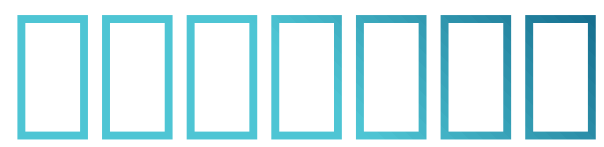
# 前端工程化-部署

前端工程化-部署

- webpack/parcel/ESbuild;
- CI/CD;
- 部署;







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Well begun is half done.

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□□□□□□□□VUE / REACT / ANGULAR / ...□?

	Angular	React	Vue
□□□□	2010□	2013□	2014
□□□□	TypeScript	□□□□JavaScript□□□	JavaScript/HTML/TypeScript
□□	Incremental DOM	Virtual DOM	Virtual DOM
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# Incremental DOM

Incremental DOM

Angular

```
@Component({
  selector: 'todos-cmp',
  template: `
    <div *ngFor="let t of todos|async">
      {{t.description}}
    </div>
  `,
})
class TodosComponent {
  todos: Observable<Todo[]> = this.store.pipe(select('todos'))
  constructor(private store: Store<AppState>) {}
}
```

React

```
var TodosComponent = /** @class */ (function () {
  function TodosComponent(store) { /* store component */ }
  TodosComponent.ngComponentDef = defineComponent({
    type: TodosComponent,
    selectors: [["todos-cmp"]],
    factory: function TodosComponent_Factory(t) {
      return new (t || TodosComponent)(directiveInject(Store));
    }, consts: 2, vars: 3,
    template: function TodosComponent_Template(rf, ctx) {
      if (rf & 1) { // create dom
        pipe(1, "async");
        template(0, TodosComponent_div_Template_0, 2, 1, null);
      } if (rf & 2) { // update dom
        elementProperty(0, "ngForOf", bind(pipeBind1(1, 1, ctx.todos)));
      }
    }, encapsulation: 2
  });
  return TodosComponent;
})();
```



## □□□□ - Virtual DOM

DOM DOM DOM

## ORIGINAL DIV DOM

```
> var div = document.createElement('div')
var str = ''
for (var key in div){
  str += key + ' '
}
< "align title lang translate dir dataset hidden tabIndex accessKey draggable spellcheck contentEditable isContentEditable
offsetParent offsetTop offsetLeft offsetWidth offsetHeight style innerText outerText webkitdropzone onabort onblur
oncancel oncanplay oncanplaythrough onchange onclick onclose oncontextmenu oncuechange ondblclick ondrag ondragend
ondragenter ondragleave ondragover ondragstart ondrop ondurationchange onemptied onended onerror onfocus oninput
oninvalid onkeydown onkeypress onkeyup onload onloadeddata onloadedmetadata onloadstart onmousedown onmouseenter
onmouseleave onmousemove onmouseout onmouseover onmouseleave onmouseover onmouseover onmouseover onmouseover onmouseover
onreset onresize onscroll onseeked onseeking onselect onshow onstalled onsubmit onsuspend ontimeupdate ontoggle
onvolumechange onwaiting click focus blur onautocomplete onautocompleteerror namespaceURI prefix localName tagName id
className classList attributes innerHTML outerHTML shadowRoot scrollTop scrollLeft scrollWidth scrollHeight clientTop
clientLeft clientWidth clientHeight onbeforecopy onbeforecut onbeforepaste oncopy oncut onpaste onsearch onselectstart
onwheel onwebkitfullscreenchange onwebkitfullscreenerror previousElementSibling nextElementSibling children
firstElementChild lastElementChild childElementCount hasAttributes getAttribute getAttributeNS setAttribute
setAttributeNS removeAttribute removeAttributeNS hasAttribute hasAttributeNS getAttributeNode getAttributeNodeNS
setAttributeNode setAttributeNodeNS removeAttributeNode closest matches webkitMatchesSelector getElementsByTagName
getElementsByClassName getElementsByTagName insertAdjacentElement insertAdjacentText insertAdjacentHTML
createShadowRoot getDestinationInsertionPoints requestPointerLock getClientRects getBoundingClientRect scrollIntoView
scrollIntoViewIfNeeded animate remove webkitRequestFullscreen webkitRequestFullscreen querySelector querySelectorAll
ELEMENT_NODE ATTRIBUTE_NODE TEXT_NODE CDATA_SECTION_NODE ENTITY_REFERENCE_NODE ENTITY_NODE PROCESSING_INSTRUCTION_NODE
COMMENT_NODE DOCUMENT_NODE DOCUMENT_TYPE_NODE DOCUMENT_FRAGMENT_NODE NOTATION_NODE DOCUMENT_POSITION_DISCONNECTED
DOCUMENT_POSITION_PRECEDING DOCUMENT_POSITION_FOLLOWING DOCUMENT_POSITION_CONTAINS DOCUMENT_POSITION_CONTAINED_BY
DOCUMENT_POSITION_IMPLEMENTATION_SPECIFIC nodeType nodeName baseURI isConnected ownerDocument parentNode parentElement
childNodes firstChild lastChild previousSibling nextSibling nodeValue textContent hasChildNodes normalize cloneNode
isEqualNode isSameNode compareDocumentPosition contains lookupPrefix lookupNamespaceURI isDefaultNamespace insertBefore
appendChild replaceChild removeChild addEventListener removeEventListener dispatchEvent "
```

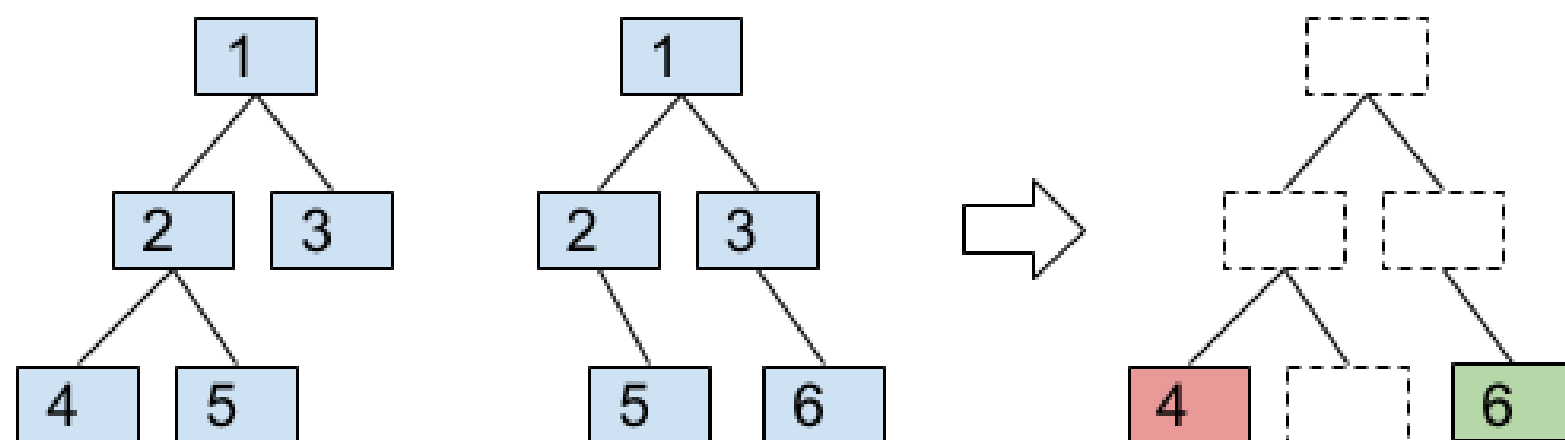
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DOM  
DOM web  
ReactNative Weex.



# Virtual DOM DIFF





# □□□□ - React or Vue ?

# ○○○○○○○○JavaScript ○○○ – ○○○○○

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# jQuery

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5/5/2019

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# Github

Page 10 of 10

Page 10

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Angular



# 前端 - 基础

Talk is cheap. Show me the code. — Linus Torvalds

## 1. 安装 Vue Cli

```
npm install -g @vue/cli
```

## 2. 创建项目

```
vue create fintech-financeRecon-portal
```

- 安装 nodejs 和 npm



# 📁📁📁📁 - 📁📁📁📁

convention over configuration 📁📁📁📁

## ■ 📁📁📁📁

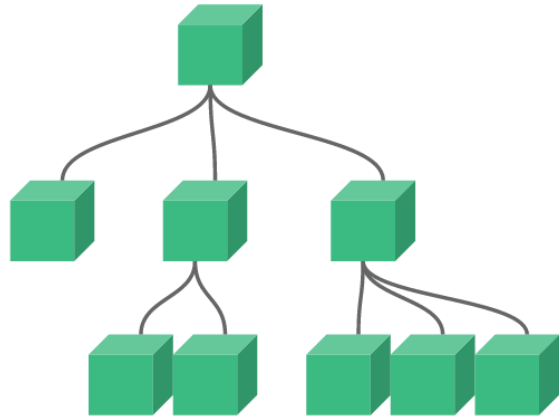
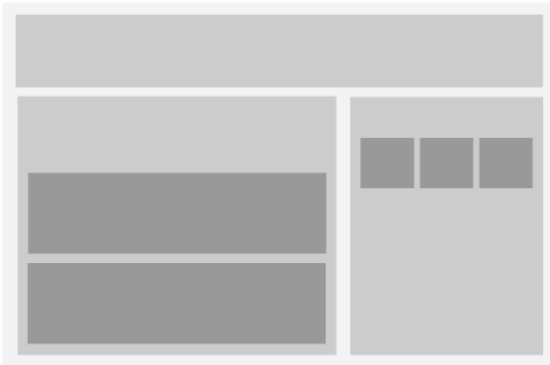
```
├─ README.md      // 📄 📄 📄
├─ package.json   // 📄 📄 📄 📄
├─ src
│   ├─ App.vue    // 📄 📄 📄
│   ├─ api        // api 📄
│   ├─ assets     // 📄 📄 📄
│   ├─ components // 📄 📄 📄 📄
│   │   └─ Charts
│   ├─ config     // 📄 📄 📄 📄
│   │   └─ defaultSettings.js
│   ├─ main.js    // js 📄
│   ├─ router.js  // 📄 📄 📄
│   ├─ store      // 📄 📄 📄
│   ├─ utils      // 📄
│   │   └─ axios.js
│   │   └─ utils.js
│   └─ views      // 📄
│       └─ 404.vue
└─ .env.dev       // 📄 📄 📄 📄
```



# UI - 設計

UI設計の目的は、ユーザーが使いやすい製品を開発することです。

- 目的



- 設計の目的は、fintechのユーザー体験を向上させることです。

+---+-----+		
	hbTablePage	
+---+-----+		
M	search-bar	
E	action-bar	
N	data-table	
U		
+---+-----+		

UI設計の目的は、ユーザーが使いやすい製品を開発することです。

UI設計の目的は、Vueのユーザー体験を向上させることです。



# Table - 1

Table -

## pros

```
/* TablePage.vue */
props: {
  dataTable: {
    columns: [],
    rowKey: "",
  },
  dataListFun: {
    type: Function,
  },
},
```

## 

```
/* TablePage.vue */
loadData() {
  this.dataListFun(
    this.pagination.pageNum,
    this.pagination.pageSize,
    this.searchCondition
  ).then((res) => {
    if (res.code == RESULT_CODE.SUCCESS) {
      this.data = res.data.rows;
    }
  });
},
```

## 

- prop prop ; prop



# Table - Table2

Table - Table2

Table - Table2

## Table

```
/**
 * TablePage.vue
 * Table
 * this.$emit('myEvent')
 */
onSelectChange(selectedRowKeys, selectedRows) {
  this.$emit('ON_SELECTED_DATA', this.selectedData);
}
```

## Table2

```
/* Page.vue */
<template>
  <div>
    <hbTablePage
      @ON_SELECTED_DATA="onSelectedData"
    >
    </hbTablePage>
  </div>
</template>
```

## Table

- Table prop "Table" Table
- Table update:myPropName Table



# Table - 3

Table component with slots for search bar and action bar

## Table component - Slots

### Table component slots

```
/* TablePage.vue */
<div v-if="$slots.searchBar">
  <slot name="searchBar"></slot>
  <a-divider dashed style="margin: 12px 0px" />
</div>
<div v-if="$slots.actionBar">
  <slot name="actionBar"></slot>
</div>
```

### Table component

```
/* Page.vue */
<template>
  <div>
    <hbTablePage>
      <template v-slot:searchBar>
        <hbTableSearchBar />
      </template>
      <template v-slot:actionBar>
        <hbTableActionBar />
      </template>
    </hbTablePage>
  </div>
</template>
```



# 路由 - 路由

路由配置

## 路由

```
/* router.js
* 路由配置 */
{
  path: '/userLogin',
  name: 'userLogin',
  component: resolve => require(['@/views/user/Login'],
    resolve),
}
```

```
/* router.js
* 路由配置 */
{
  path: '/userLogin',
  name: 'userLogin',
  component: =>import(
    /* webpackChunkName: "userLogin" */
    '../views/userLogin.vue')
}
```

## 路由

```
/* babel-plugin-component
* .babelrc */
{
  "presets": [["es2015", { "modules": false }]],
  "plugins": [
    "component",
    {"libraryName": "ant-design-vue",
     "styleLibraryName": "theme-chalk"}]
  ]
}
```

```
/* main.js or page.vue */
import Vue from 'vue';
import { Button, message } from 'ant-design-vue';

Vue.use(Button);
Vue.prototype.$message = message;
```



# webpack - 1

webpack 配置

## ■ 配置

```
/* image-webpack-loader
 * vue.config.js */
{
  test: /\.?(png|jpe?g|gif|svg)(\?.*)?$/,
  use:[{
    loader: 'url-loader',
    options: {
      limit: 10000,
      name: utils.assetsPath('img/[name].[hash:7].[ext]')
    }
  },{
    loader: 'image-webpack-loader',
    options: {
      bypassOnDebug: true,
    }
  }]
}
```

## ■ 配置

```
/* CommonsChunkPlugin
 * vue.config.js
 * package.json 配置 vendor.js 文件 */
new webpack.optimize.CommonsChunkPlugin({
  name: 'vendor',
  minChunks: function(module, count) {
    return (
      module.resource &&
      /\.js$/.test(module.resource) &&
      module.resource.indexOf(
        path.join(__dirname, '../node_modules')
      ) === 0
    );
  }
}),
/* 配置 */
new webpack.optimize.CommonsChunkPlugin({
  name: 'manifest',
  chunks: ['vendor']
})
```



# webpack - 2

webpack 配置

## ■ ES6 转 ES5 配置

```
/* babel-plugin-transform-runtime
 * .babelrc */
"plugins": [
  "transform-runtime"
]
```

## ■ BABEL 转 ES6 转 ES5 配置

## ■ 转 ES6 转 ES5 配置

## ■ gzip 配置

```
/* compression-webpack-plugin@5.0.1
 * vue.config.js
 * 配置 .gz 文件 */
const CompressionPlugin = require("compression-webpack-plugin")
configureWebpack: {
  plugins: [
    new CompressionPlugin({
      filename: "[path].gz",
      algorithm: "gzip",
      test: /\.js$|\.css$|\.html$/,
      threshold: 10240, // 压缩文件的大小, 单位字节
      minRatio: 0.8,
      deleteOriginalAssets: false
    })
  ]
}
```

```
/* nginx.conf
 * nginx 配置 gzip */
gzip on; # 配置 gzip
...
```





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- □□□□:

1. □□vue cli□□□□□□□□□□

2. □□□□□□□□□□□□□□□□

3. □□□□□□□□□□□□□□□□□□□□;

□□VueJs□□□□□□□□□ <https://vuejs.org/>.



# Where to Go From Here?

Flutter

Flutter

Flutter

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Flutter

Flutter

Flutter

.....



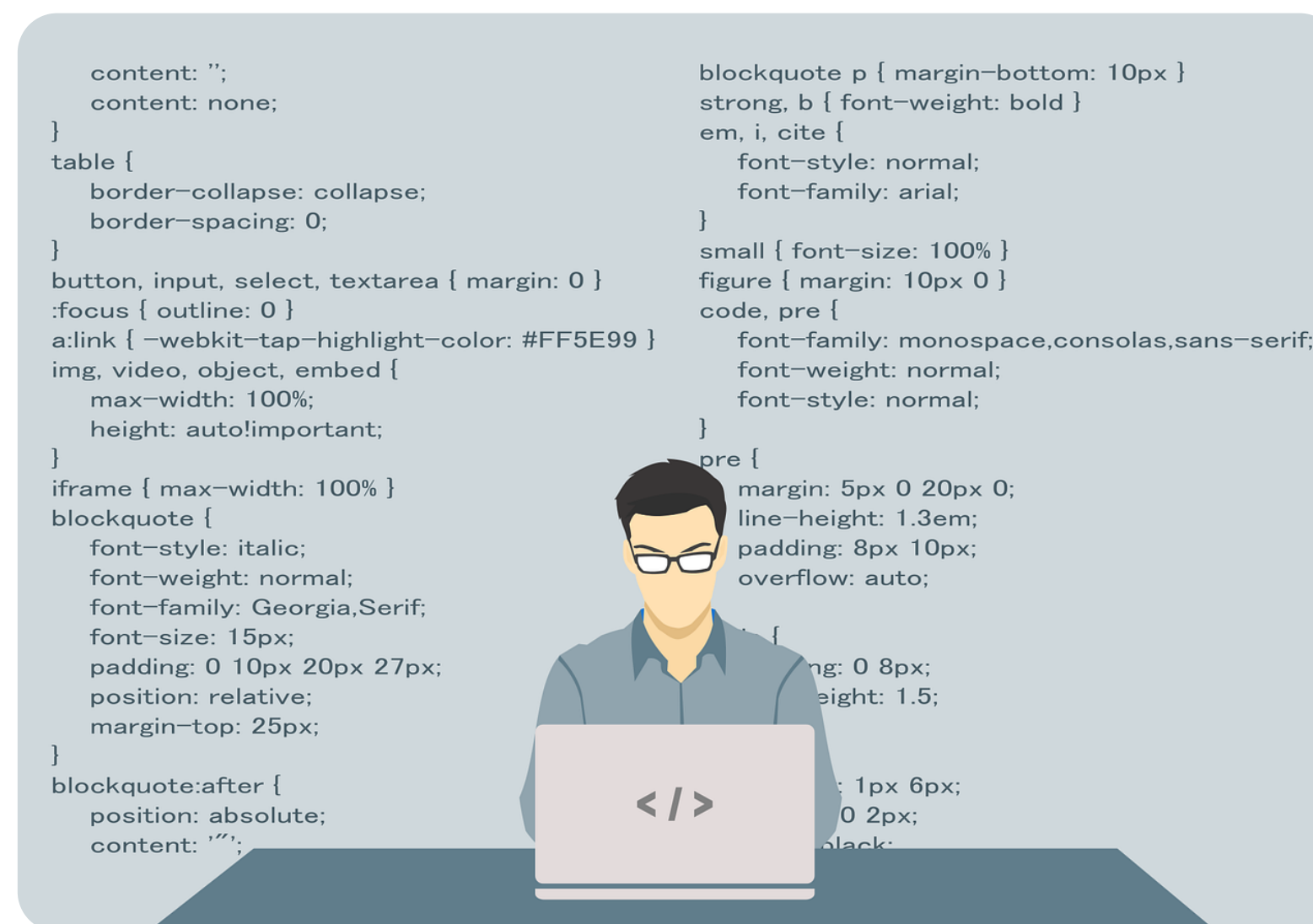
# 前端技术栈

- 基础库 (jQuery, ES5, ES6)
- 框架 (reactjs, vuejs, angularjs) / jquery
- SPA (Single Page Application)





- `0vuejsweb`;
- `vuejs`





THANK YOU !

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# One More Thing

□□□□□□□□□□<https://sli.dev>