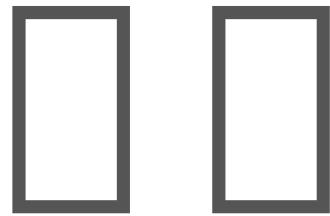




- - □□□□□□

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□×8□□□/□□□□□



WEB APP?

WEB APP ---

WEB APP

1990 - 2004

- HTML
- js
- DOM

web2.0
2004 - 2008

- DOM
- Ajax
- jQuery

2008 - 2015

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

2015 - 2020

- React
- NodeOS
- ReactOS
- Electron
- serverless
- lowcode/nocode
- WebAssembly

A horizontal row of six empty rectangular boxes with blue outlines. To the right of the last box is a large, stylized question mark.

The only constant in the world is change.

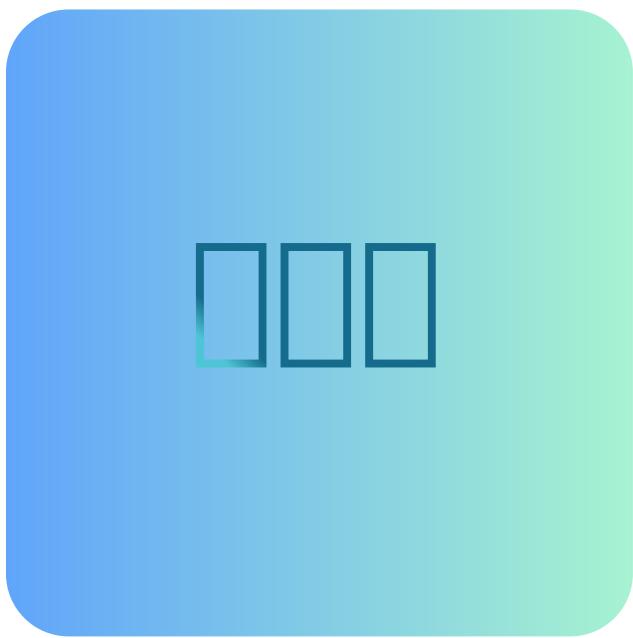
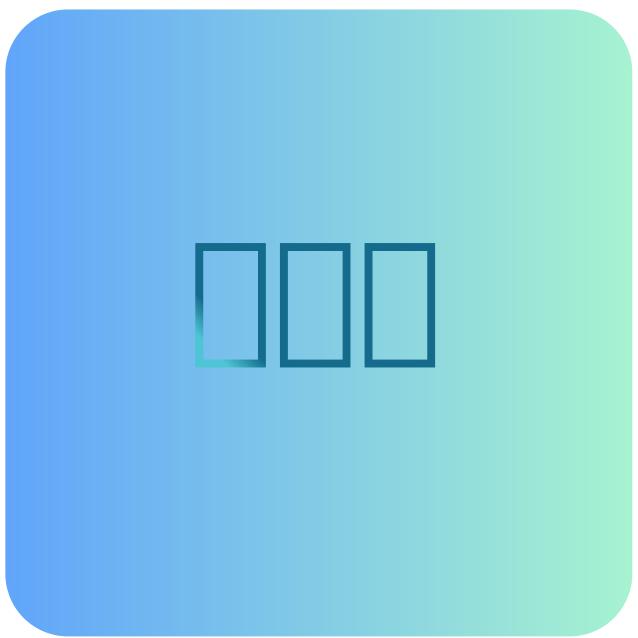
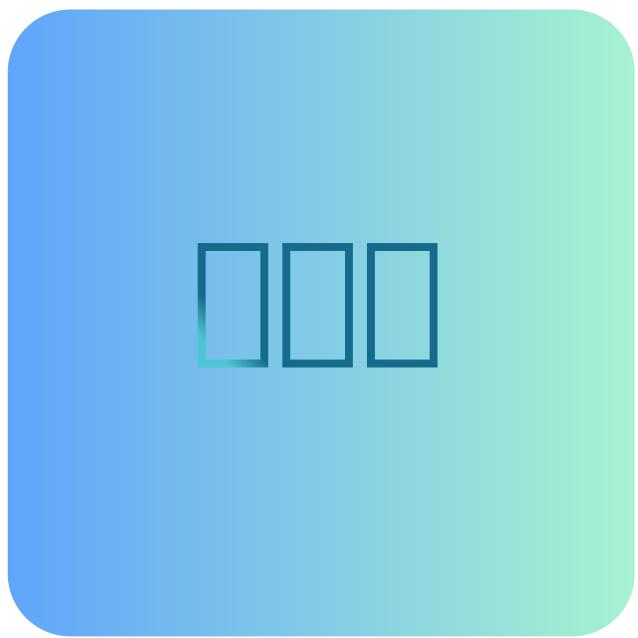
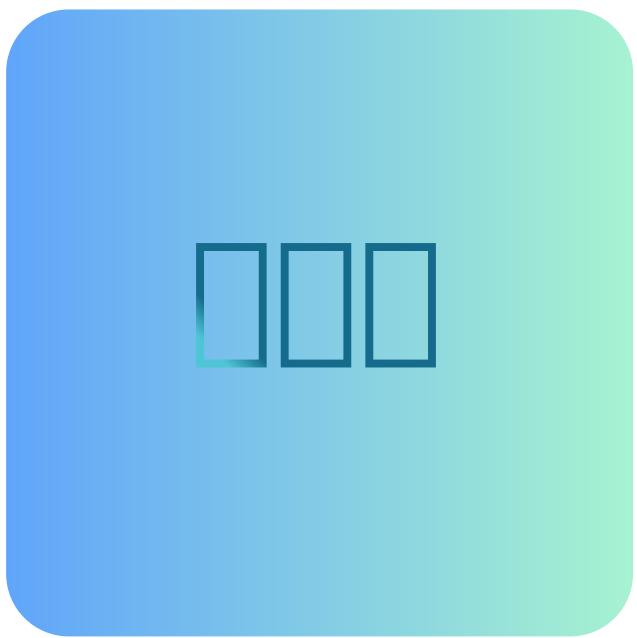
A horizontal sequence of 20 empty square boxes, each with a black border, arranged in a single row. This visual element is used for drawing a timeline.

A horizontal row of ten empty rectangular boxes, each with a black border and a white interior, intended for children to draw or write in.

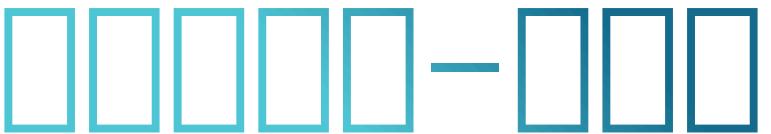
- JS
 - Web App
 - 

A horizontal sequence of eight empty rectangles with blue outlines. To the right of the eighth rectangle is a large, dark blue question mark.

1

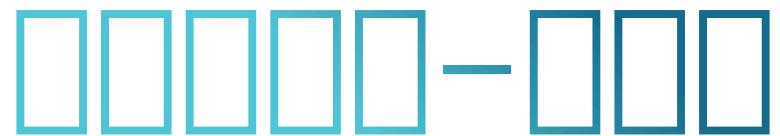


A horizontal row of 20 empty rectangular boxes, each with a thin black border, intended for handwritten responses.



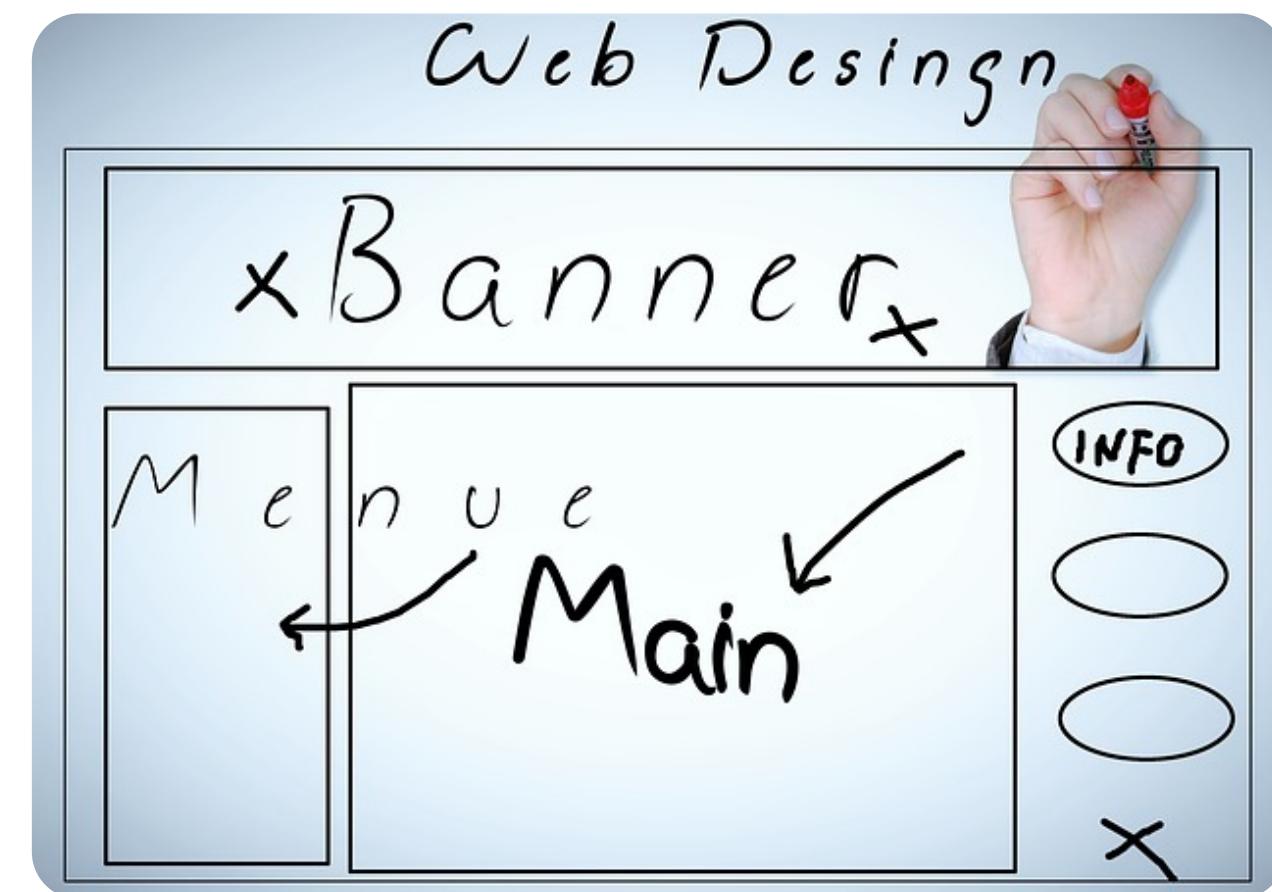
The screenshot shows two side-by-side web pages. On the left is the **Node.js v16.5.0 documentation**, specifically the 'Table of contents' page. It lists various modules and add-ons, with 'Modules: CommonJS modules' expanded to show sub-sections like 'Accessing the main module', 'Addenda: Package manager tips', and 'All together...'. On the right is the **webpack v5.45.1** documentation under the '概念' (Concepts) section. It defines webpack as a module bundler that builds a dependency graph from entry points and outputs bundles. The '概念' page includes a sidebar with links to 'webpack v4.0.0' and 'webpack 配置' (Configuration). A callout box on the Node.js page points to the 'All together...' section of the Node.js documentation.

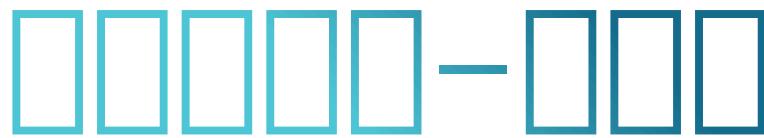
- JS 模块 CommonJS | AMD | CMD | ES6 Module
- CSS 模块 Sass | Less | Stylus | BEM | CSS Modules | SCSS | LESS | BEM | CSS Modules | SASS
- JS 模块 CSS JS | CSS | Vue | style scoped
- CSS 模块 CSS JS | CSS | SCSS | LESS | BEM | CSS Modules | SASS



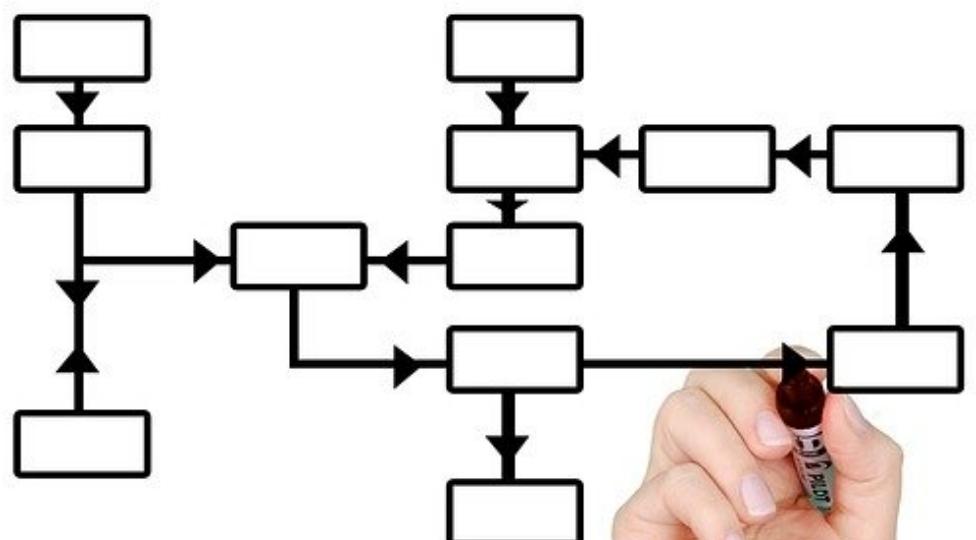
UI/UX设计

- 布局
- 颜色
- 字体





A horizontal row of 20 empty rectangular boxes, each with a thin black border, intended for children to write their names in.

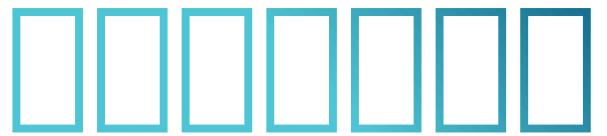


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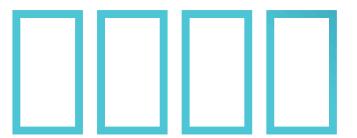
{ □□□□□□□□□□□□□□□□□

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



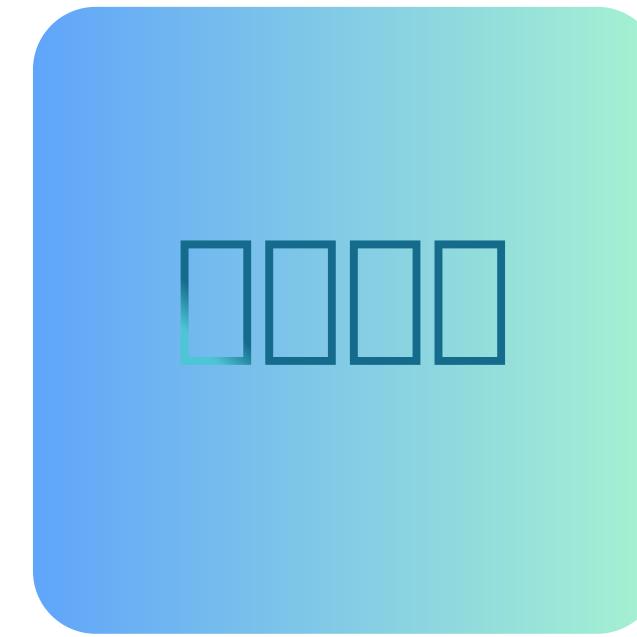
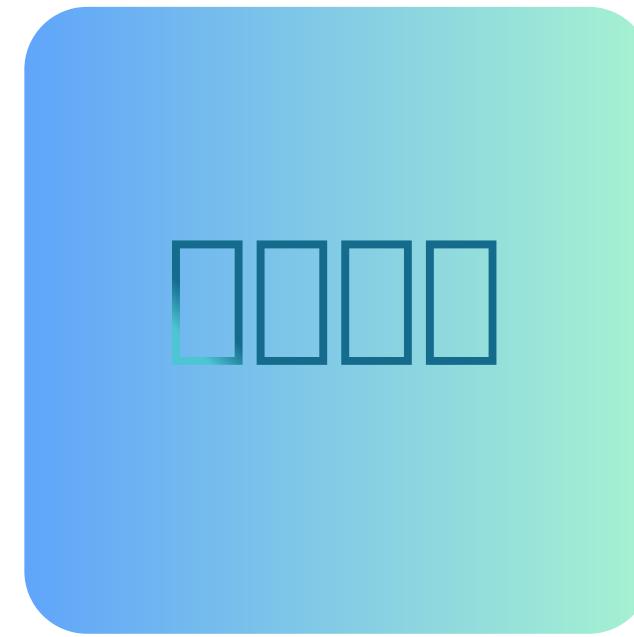
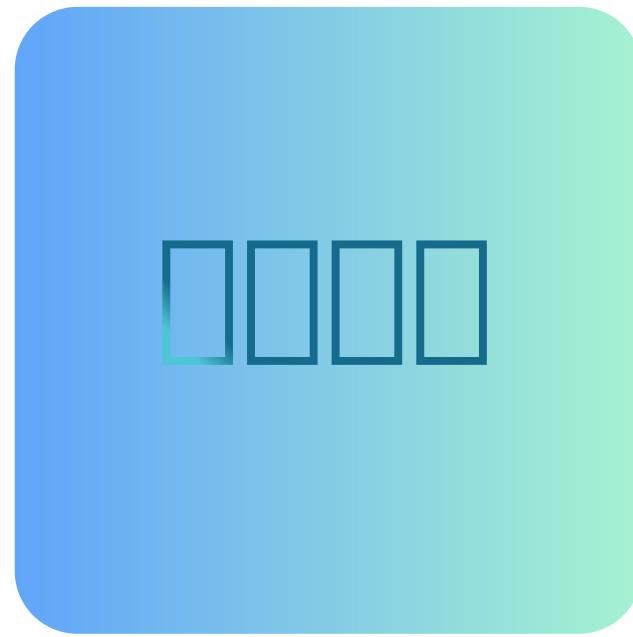
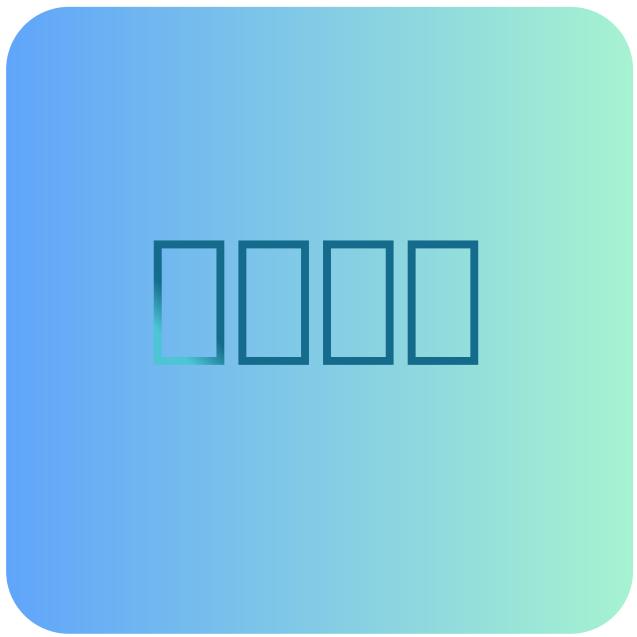


- 亂數
- 亂數 $\times 0 \times 1 \times \dots \times n$ web



Well begun is half done.

■■■■■■■■■■ ■— ■■■





□□□□□□□□□VUE / REACT / ANGULAR / ...□?

Angular

React

Vue



2010□

2013□

2014



TypeScript

□□□□JavaScript□□□

JavaScript/HTML/TypeScript



Incremental DOM

Virtual DOM

Virtual DOM



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□□Web□□SPA□□

□□□Web SPA□□

- Incremental DOM

DOM

1

1

```
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, c)));
      }
    },
    encapsulation: 2
  });
  return TodosComponent;
}());
```

- Virtual DOM

DOM DOM DOM DOM

ORIGINAL DIV DOM

```
> var div = document.createElement('div')
var str = ''
for (var key in div){
  str += key + '\n'
}
"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 onmousewheel onpause onplay onplaying onprogress onratechange
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 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 getElementsByTagNames 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 "
```

10

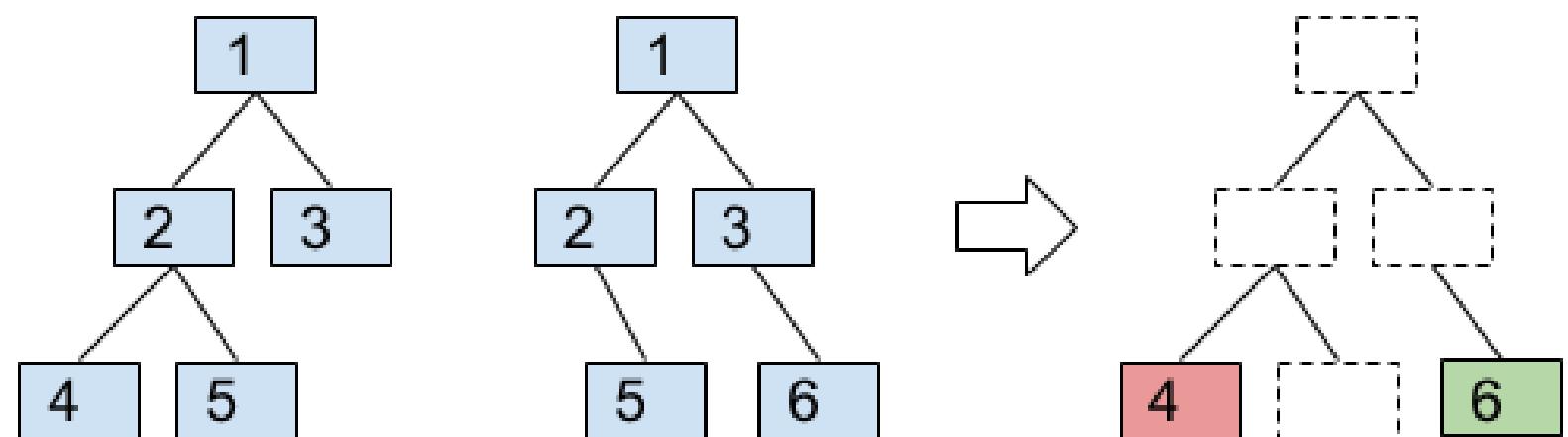


DOM DOM web
ReactNative Weex.



The diagram illustrates the Document Object Model (DOM) structure of a web page. It consists of two rows of rectangular boxes representing nodes. The top row contains 20 boxes, with the word "DOM" centered in the 11th box from the left. The bottom row contains 18 boxes, with the word "DOM" centered in the 9th box from the left. This visual representation shows how the DOM tree is organized, with the root node ("DOM") at the center.

Virtual DOM DIFF



- React or Vue ?

JavaScript 基础 - 第一章

Four empty rectangular boxes arranged horizontally, intended for handwritten responses.

Jquery

Six empty rectangular boxes arranged horizontally, intended for handwritten responses.

Four empty rectangular boxes arranged horizontally, intended for the student to write their answers.

Four empty rectangular boxes arranged horizontally, intended for handwritten responses.

三

A row of five empty rectangular boxes, each with a black double-line border, intended for handwritten responses.

1

Four empty rectangular boxes for writing, arranged horizontally.

Github

Six empty rectangular boxes arranged horizontally, intended for handwritten responses.

ANSWER

4/10

Angular



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

1. Vue Cli

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

2.

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

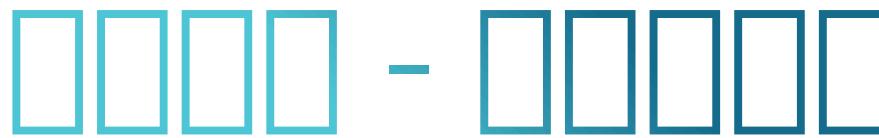
- nodejs npm npm

□□□□□ - □□□□□

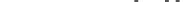
convention over configuration □□□□□

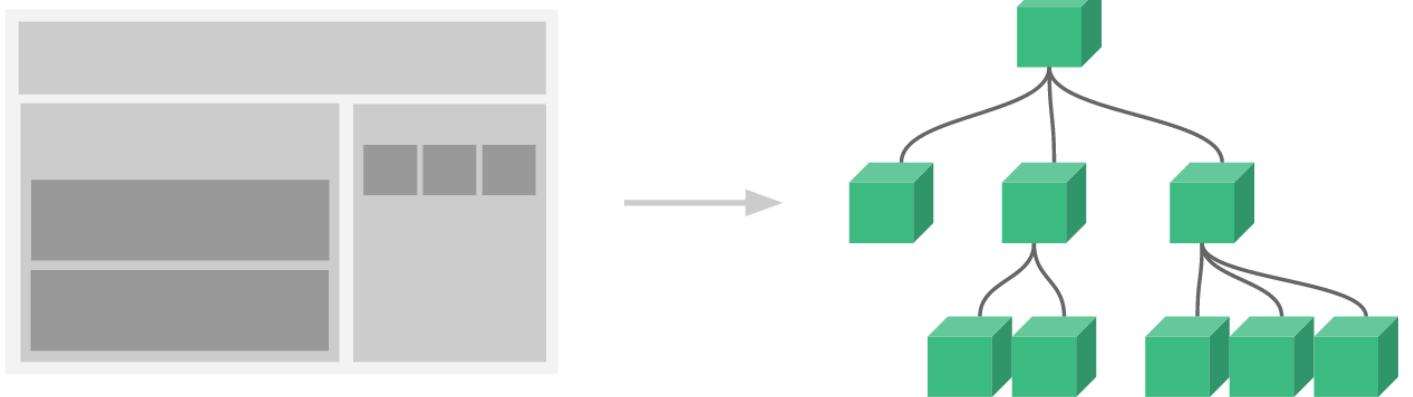
- □□□□□

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



A vertical brace is positioned to the left of a horizontal row of twelve empty rectangular boxes.

- 
 -  fintech 



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

A horizontal row of 25 empty rectangular boxes, likely for children to write their names in during a classroom activity.

Vue

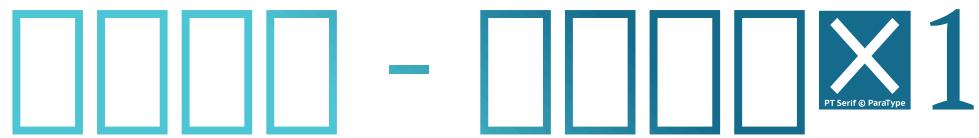


table -

- # ■ pros

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

- A horizontal row of five empty rectangular boxes, likely for handwriting practice or filling in information.

4 of 4

- \Box \Diamond \Box \Box \Diamond \Diamond \Box ; \Diamond \Box \Diamond \Diamond \Box \Box

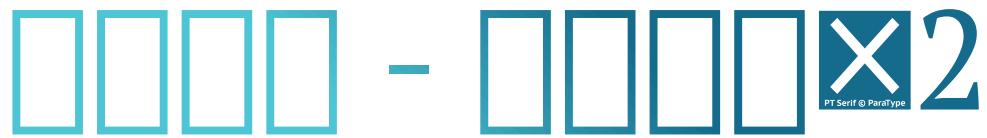


table -

- A horizontal row of seven small square icons, each containing a vertical rectangle, representing a sequence of seven steps or stages.

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

- A horizontal sequence of five empty rectangular boxes, each with a black border, followed by a small dark gray square.

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

4/10

- `prop` “`myPropName`”;
 - `update:myPropName`



table -

- A horizontal bar chart consisting of 15 empty rectangular boxes of varying widths, representing data points or categories.

```
/* 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>
```

-

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

□□□ - □□□

□□□□□□□□□□□□

-

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

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

-

```
/* 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;
```

□□□ - □□□□X1

□□□□□□□□□□□□□

- □□□

```
/* 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,
    }
  }]
}
```

- □□□□□□

```
/* CommonsChunkPlugin
 * vue.config.js
 * package.json □□□□□□□□□ vendor.js □□□ */
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
    );
  }
}),
/* □□□□□□□□□ */
new webpack.optimize.CommonsChunkPlugin({
  name: 'manifest',
  chunks: ['vendor']
})
```

□□□□ - □□□□X2

□□□□□□□□□□□□□□

- ES6 □□ ES5 □□□□

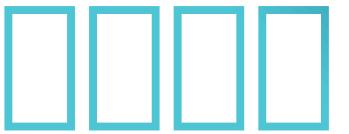
```
/* babel-plugin-transform-runtime
 * .babelrc */
"plugins": [
  "transform-runtime"
]
```

- BABEL □□□□ ES6 □□□□ ES5 □□□□□□□□□□□□□□
□□□□□□□□
- □□REQUIRE('BABEL-
RUNTIME/HELPERS/CREATECLASS') □□□□□□□□□□
□□

- gzip□□□

```
/* compression-webpack-plugin@5.0.1
 * vue.config.js
 * □□□□.gz□□□ */
const CompressionPlugin = require("compression-webpack-plugi
configureWebpack: {
  plugins: [
    new CompressionPlugin({
      filename: "[path].gz",
      algorithm: "gzip",
      test: /\.js$|\.css$|\.html$/,
      threshold: 10240, // //□□□□□□□□,□□□□
      minRatio: 0.8,
      deleteOriginalAssets: false
    })
  ]
}
```

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



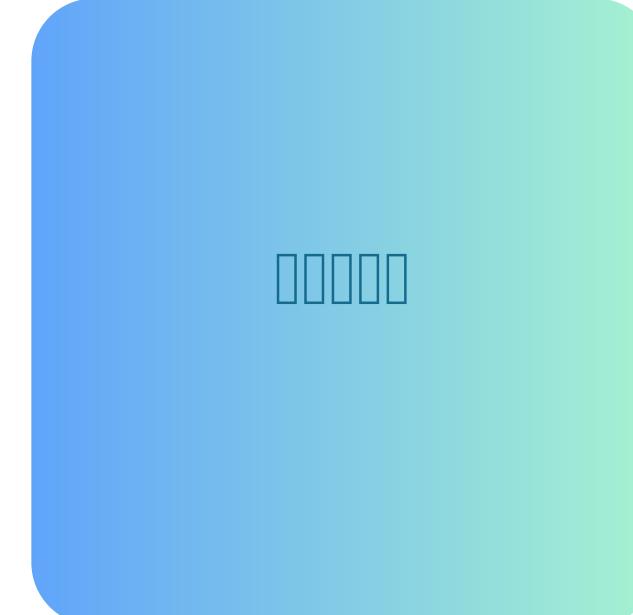
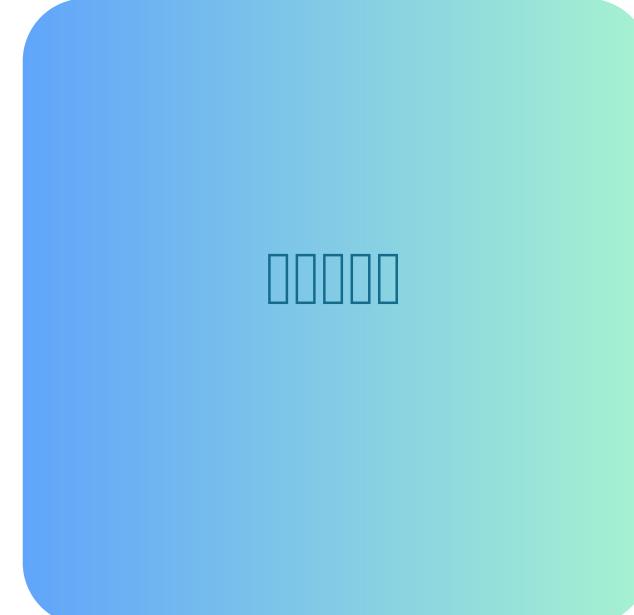
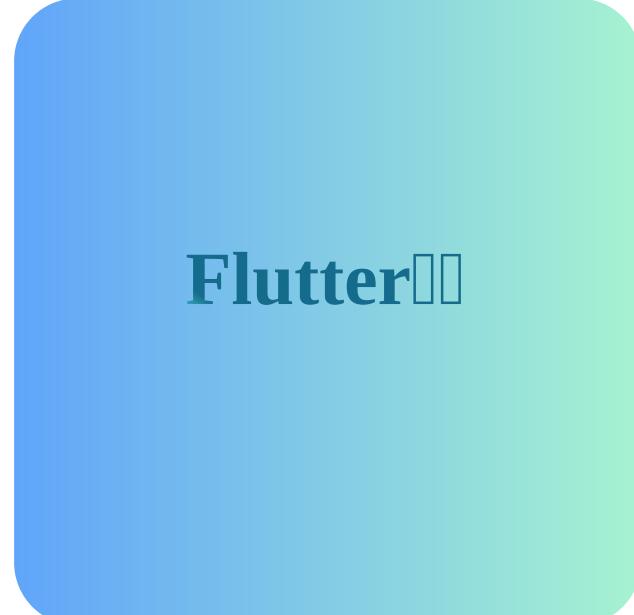
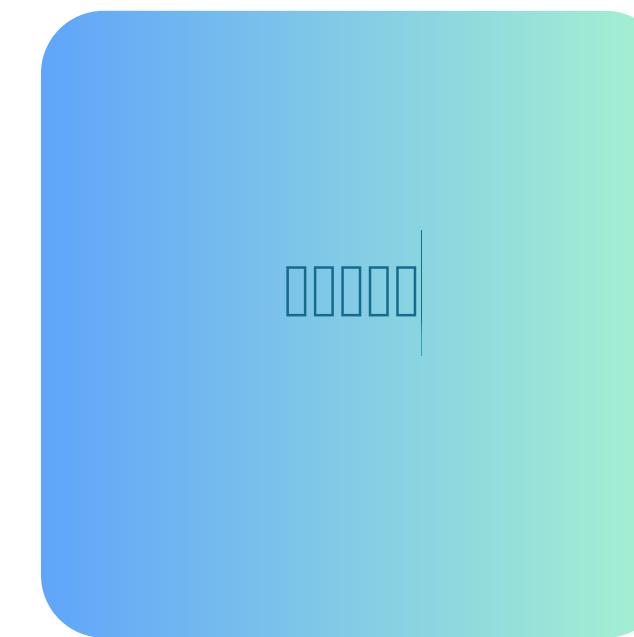
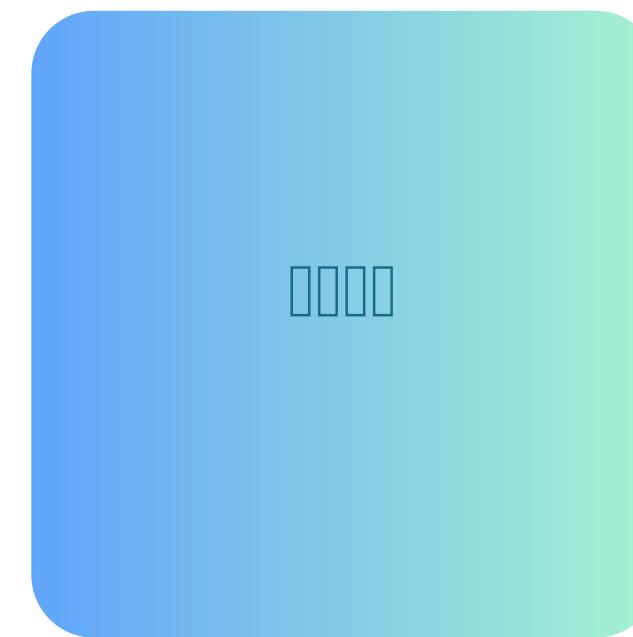
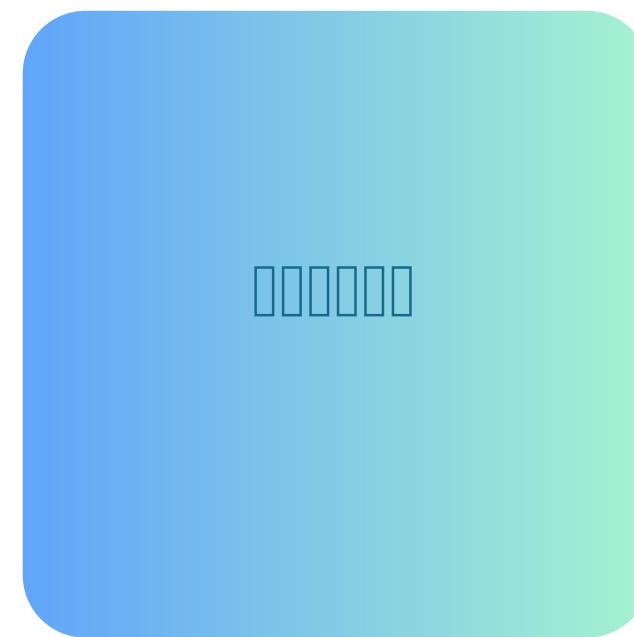
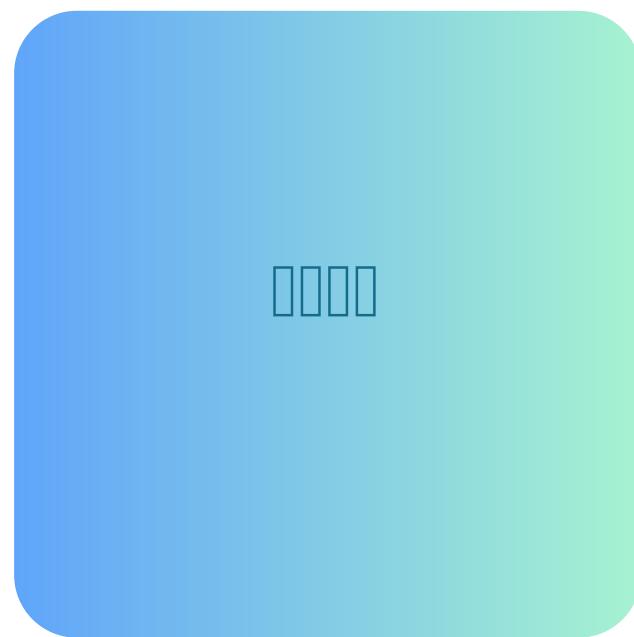
〔 〕

- 〔 〕×0×1〔 〕
- 〔 〕:
 1. 〔 〕vue cli〔 〕
 2. 〔 〕
 3. 〔 〕;

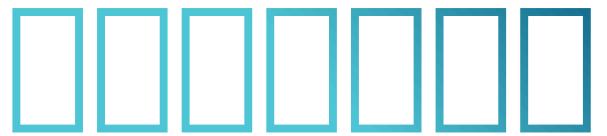
〔 〕VueJs〔 〕<https://vuejs.org/>.

Where to Go From Here?

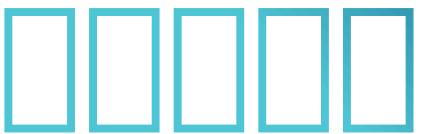
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|



.....

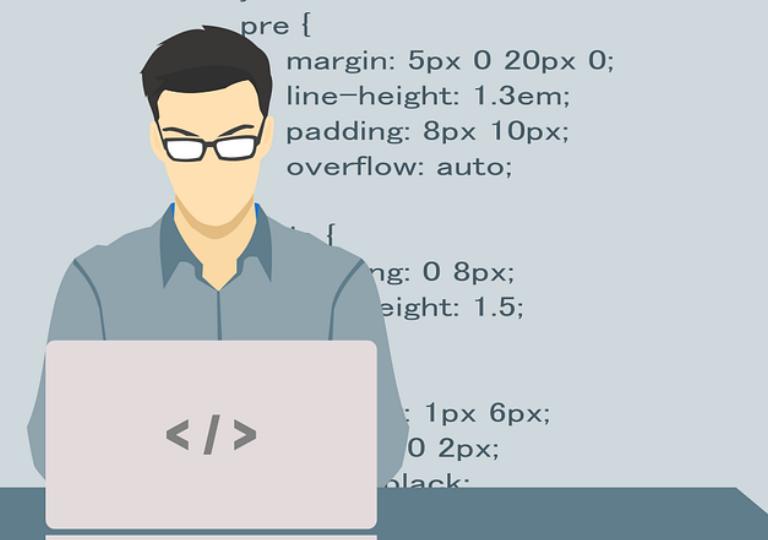


- 前端框架
- 前端框架(reactjs\vuejs\angularjs)\jquery\前后端分离
- 前端SPA\前后端分离



- ×0vuejs×vuejs×web×;
- vuejs×vuejs×vuejs×

```
content: "";
content: none;
}
table {
border-collapse: collapse;
border-spacing: 0;
}
button, input, select, textarea { margin: 0 }
:focus { outline: 0 }
a:link { -webkit-tap-highlight-color: #FF5E99 }
img, video, object, embed {
max-width: 100%;
height: auto!important;
}
iframe { max-width: 100% }
blockquote {
font-style: italic;
font-weight: normal;
font-family: Georgia,Serif;
font-size: 15px;
padding: 0 10px 20px 27px;
position: relative;
margin-top: 25px;
}
blockquote:after {
position: absolute;
content: '';
border-left: 1px solid black;
border-bottom: 1px solid black;
border-right: 1px solid black;
border-top: 1px solid black;
border-top-left-radius: 10px;
border-top-right-radius: 10px;
width: 0;
height: 0;
left: -10px;
top: 0;
}
blockquote p { margin-bottom: 10px }
strong, b { font-weight: bold }
em, i, cite {
font-style: normal;
font-family: arial;
}
small { font-size: 100% }
figure { margin: 10px 0 }
code, pre {
font-family: monospace,consolas,sans-serif;
font-weight: normal;
font-style: normal;
}
pre {
margin: 5px 0 20px 0;
line-height: 1.3em;
padding: 8px 10px;
overflow: auto;
}
pre code {
margin: 0 8px;
font-size: 1.5;
}
pre code pre {
margin: 0 8px;
font-size: 1px 6px;
border: 0 2px;
background-color: black;
color: white;
}
```



THANK YOU !



One More Thing

 <https://sli.dev>