

Галопом по фронтенду

JS

CSS

Доквлад

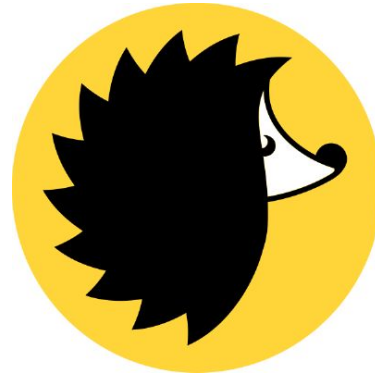
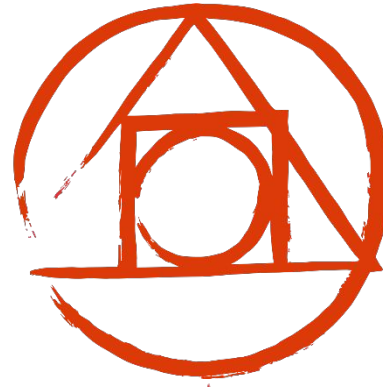
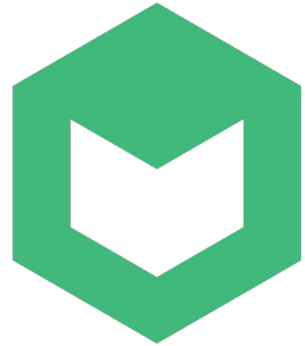
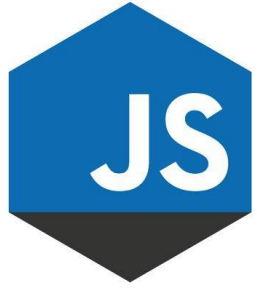
1/2



Кратковлад



Главные герои сегодняшнего вечера



webpack



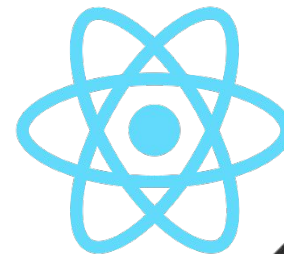
cssnano



Browsersync

Sass

BABEL



Популярные препроцессоры

Sass

{less}

stylus

CSS4

Что может sass?

- Переменные
- Наглядная вложенность
- Расширенная поддержка арифметики
- Импортирование из других файлов
- Наследование
- Миксины (функции)
- Директивы (циклы + if-else)

Сборка с одним файлом на входе

Вход

index.scss

```
@import "features/feature1.scss";  
@import "features/feature2.scss";
```

feature1.scss

```
*{  
  color: red !important;  
  display: flex;  
}
```

feature2.scss

```
h1 {  
  font-size: 26px !important;  
}
```

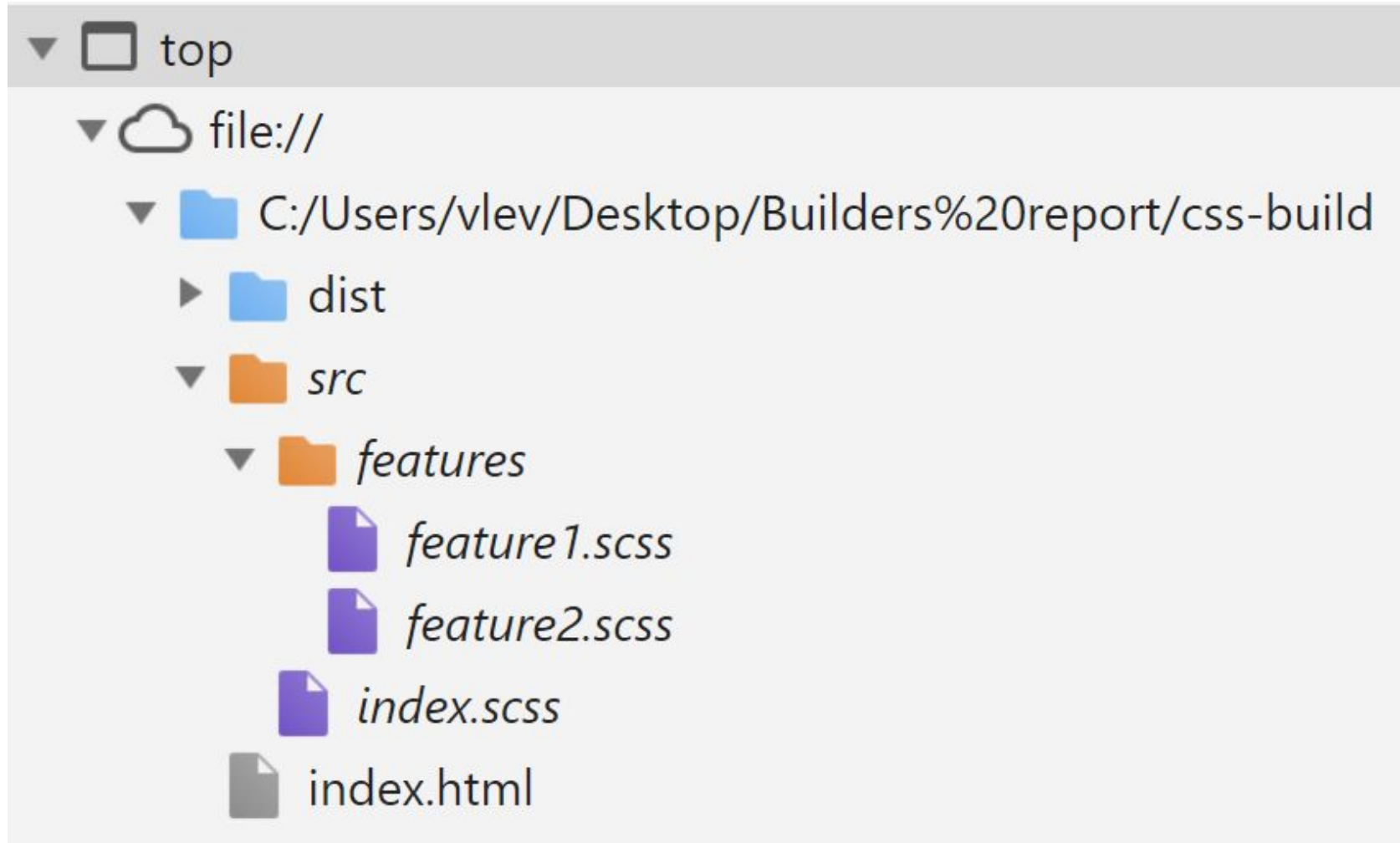
Компилируется
libsass

Выход

index.css

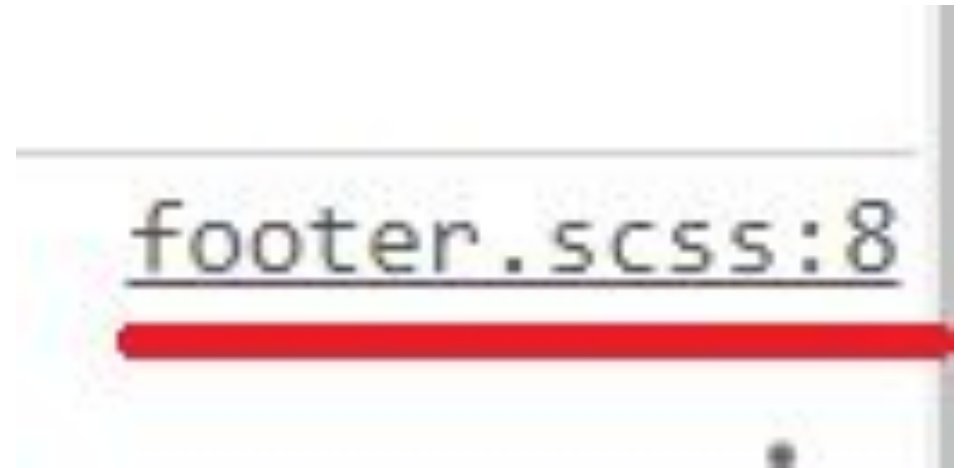
```
h1 {  
  font-size: 26px !important  
}  
  
a {  
  transition: transform 4s  
}
```

Sourcemaps



Sourcemaps

```
Styles  Computed  Event Listeners  >>
Filter  :hov .cls +
element.style {
}
#copyright {
  ✓ font-size: 17px;
}
.text-white {
  color: #fff!important;
}
.text-center {
  text-align: center!important;
}
.pb-4, .py-4 {
  padding-bottom: 1.5rem!important;
}
.pt-4, .py-4 {
  padding-top: 1.5rem!important;
}
*, ::after, ::before {
  box-sizing: border-box;
}
div {
  display: block;
}
  footer.scss:8
  text.scss:40
  text.scss:21
  spacing.scss:23
  spacing.scss:15
  reboot.scss:24
  user agent stylesheet
```



Sourcemaps

```
{  
  "version": 3,  
  "file": "index.css",  
  "sources": [  
    "../src/index.scss",  
    "../src/features/feature1.scss",  
    "../src/features/feature2.scss"  
  ],  
  "names": [],  
  "mappings":  
  "ACAA,AAAA,CAAC,AAAC,CACE,KAAK,CAAE,eAAe,CACtB,OAA  
O,CAAE,IAAI,CAChB,ACHD,AAAA,EAAE,AAAC,CACC,SAAS,CAA  
E,eAAe,CAC7B,AFCD,AAAA,CAAC,AAAC,CACE,UAAU,CAAE,YA  
Cd,CAAC"  
}
```

Звёздочки и восклицания

facebook / react

Watch 6,654 Star 126,231 Fork 22,897

Code Issues 463 Pull requests 175 Projects 0 Wiki Insights



Browsersync (★ 10561 ! 424)



Stylelint (★ 6315 ! 121)

visual.css

```
2:12 ✖ Unexpected invalid hex color "#4f"  
4:1 ⚠ Expected ".foo.bar" to have a specificity no more than "0,1,0"  
6:13 ✖ Unexpected unit "px" for property "margin"  
7:17 ✖ Expected single space after ",", in a single-line function
```

```
color-no-invalid-hex  
selector-max-specificity  
declaration-property-unit-blacklist  
function-comma-space-after
```



Stylelint






```
{  
  "extends": "stylelint-config-standard",  
  "plugins": [  
    "stylelint-scss"  
  ],  
  "rules": {  
    "color-hex-case": "lower",  
    "color-hex-length": "short",  
    "color-no-invalid-hex": true  
  }  
}
```



PostCSS (★ 20391 ! 15)



Autoprefixer (★ 16755 ! 12)

Browser	Vendor Prefix
 Firefox	-moz-
 Safari	-webkit-
 Chrome	-webkit-
 Opera	-o-
 Internet Explorer	-ms



Autoprefixer

src/index.css

```
.item {  
  display: flex;  
  flex-flow: row wrap;  
}
```

dist/index.css

```
.item {  
  display: -webkit-flex;  
  display: -ms-flexbox;  
  display: -webkit-box;  
  display: flex;  
  -webkit-flex-flow: row wrap;  
  -ms-flex-flow: row wrap;  
  flex-flow: row wrap;  
}
```



Browserlist (★ 5212 ! 13)

[production staging]

> 1%

ie 10

[development]

last 1 chrome version

last 1 firefox version



browserlist






A page to display compatible browsers from a browserslist string.

[Show Browsers](#)

Mobile Browsers

 Chrome for Android 70	33.72%
 Firefox for Android 63	0.18%
 QQ Browser 1.2	0%
 UC Browser for Android 11.8	4.23%
 Android Browser 67	0%
 Android Browser 4.4.3-4.4.4	0.42%
 Baidu Browser 7.12	0%
 Blackberry Browser 10	0.02%

Desktop Browsers


 Chrome 71	11.99%
 Chrome 70	12.88%
 Edge 18	0%
 Edge 17	1.63%
 Firefox 64	1.66%
 Firefox 63	1.64%
 IE 11	2.21%
 IE 10	0.07%



CSSNano (★ 2946 ! 36)

```
/* normalize selectors */
h1::before, h1:before {
  /* reduce shorthand even further */
  margin: 10px 20px 10px 20px;
  /* reduce color values */
  color: #ff0000;
  /* remove duplicated properties */
  font-weight: 400;
  font-weight: 400;
  /* reduce position values */
  background-position: bottom right;
  /* normalize wrapping quotes */
  quotes: '«' "»";
```



A man with dark hair, wearing a grey suit jacket, a blue shirt, and a green tie, is shown from the chest up. He has a thoughtful expression, looking slightly to his left. The background is a dark blue wall with a faint world map. In the foreground, there is a game show interface with a question and four multiple-choice options.

What is the world's most popular language?

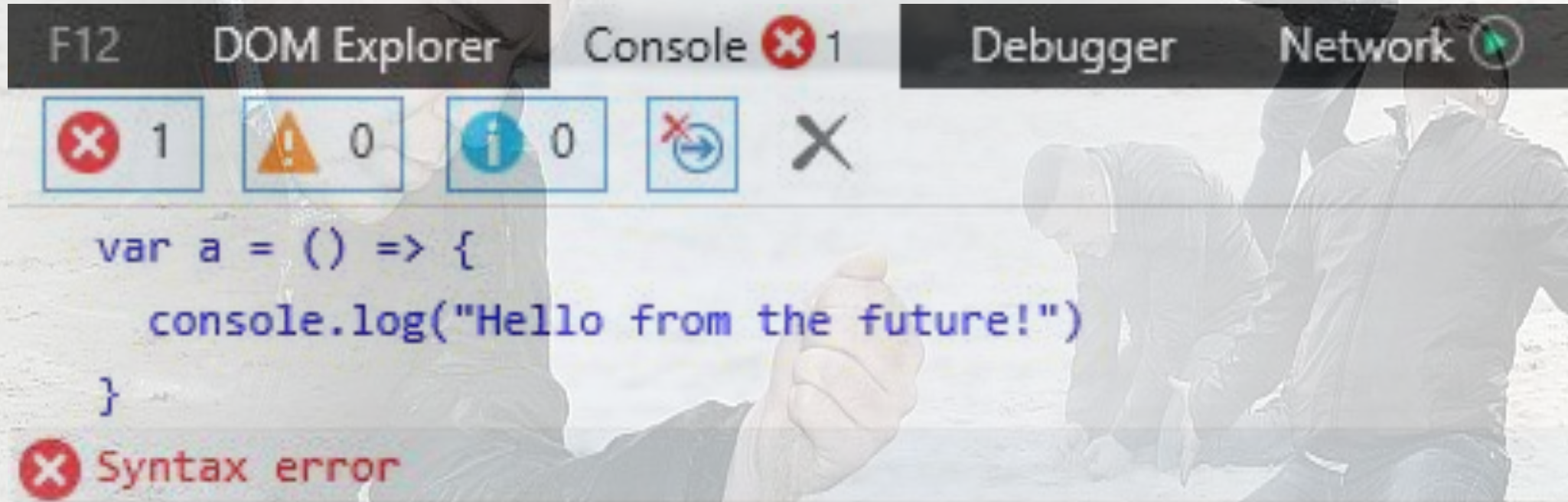
•A: French

•B: English

•C: Spanish

•D: JavaScript

Babel



The image shows a browser's developer console with the following elements:

- Top bar: F12, DOM Explorer, Console (with a red 'x' icon and '1'), Debugger, Network (with a green checkmark icon).
- Summary row: A red 'x' icon with '1', an orange warning icon with '0', a blue 'i' icon with '0', a blue refresh icon with a red 'x', and a black 'X' icon.
- Code block:

```
var a = () => {  
  console.log("Hello from the future!")  
}
```
- Error message: A red 'x' icon followed by the text "Syntax error".

Babel (★ 32275 ! 678)



KRAFTUAERK

BABEL

Babel

БЫЛО

```
var a = () => {  
  console.log("Hello from the future!")  
}
```

БУДЕТ

```
var a = function () {  
  console.log("Hello from the future!");  
};
```



Основные preset(ы)

- @babel/preset-env
- @babel/preset-flow
- @babel/preset-react
- @babel/preset-typescript



Babel

БЫЛО

```
var a = () => {  
  console.log("Hello!");  
};
```

```
var b = new Promise();
```

БУДЕТ

```
var a = function a() {  
  console.log("Hello!");  
};
```

```
var b = new Promise();
```

Babel

БЫЛО

```
var a = () => {  
  console.log("Hello!");  
};  
  
var b = new Promise();
```

БУДЕТ

```
require("core-js/modules/es6.promise");  
  
var a = function a() {  
  console.log("Hello!");  
};  
  
var b = new Promise();
```

Preset react

index.jsx

```
const element = (  
  <div>  
    <h1>Hello!</h1>  
  </div>  
)
```

index.js

```
var element = React.createElement(  
  "div",  
  null,  
  React.createElement("h1", null, "Hello!")  
)
```

Stage-x плагины

БЫЛО

```
const tvShow = +100_500;
```

СТАЛО

```
var tvShow = +100500;
```

ESLint (★ 13545 ! 97)

index.js

```
var x = 5;
```

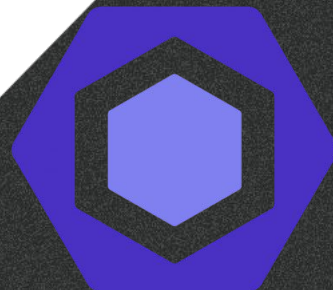
РЕЗУЛЬТАТ

<text>

```
1:1  error  Unexpected var, use let or const instead    no-var
1:5  error  'x' is assigned a value but never used     no-unused-vars
1:11 error  Newline required at end of file but not found eol-last
```

✘ 3 problems (3 errors, 0 warnings)

2 errors and 0 warnings potentially fixable with the `--fix` option.



Typescript (★ 46298 ! 3436)



Typescript

index.ts

```
function greeting(message: string): void {  
  console.log(message);  
}
```

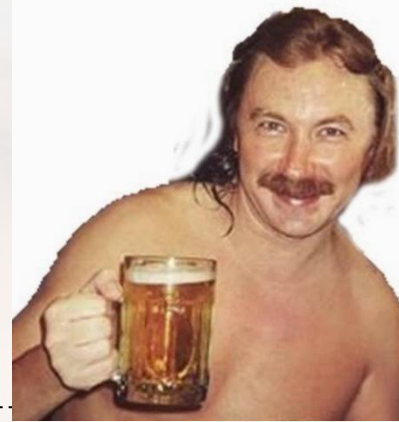
index.js

```
function greeting(message) {  
  console.log(message);  
}
```

Typescript + babel =

index.ts

```
function greeting(message: string): void {  
  console.log(message);  
}  
  
const promise = new Promise(() => {  
  console.log(42);  
});
```



index.js

```
require("core-js/modules/es6.promise");  
  
function greeting(message) {  
  console.log(message);  
}  
  
var promise = new Promise(function () {  
  console.log(42);  
});
```


Webpack (★ 47643 ! 456)

Основные концепции:

- Entry
- Output
- Loaders
- Plugins
- Mode
- Browser Compatibility

WEBPACK: BABEL

**WEBPACK: BABEL
+ REACT**

**WEBPACK: BABEL
+ TS**

**WEBPACK: BABEL
+ TS + REACT**



Webpack

index.js

```
console.log("hello-world");
```



Webpack

```
!(function(e) {
  var t = {};
  function r(n) {
    if (t[n]) return t[n].exports;
    var o = (t[n] = { i: n, l: !1, exports: {} });
    return e[n].call(o.exports, o, o.exports, r), (o.l = !0), o.exports;
  }
  (r.m = e),
  (r.c = t),
  (r.d = function(e, t, n) {
    r.o(e, t) || Object.defineProperty(e, t, { enumerable: !0, get: n });
  }),
  (r.r = function(e) {
    "undefined" != typeof Symbol &&
    Symbol.toStringTag &&
    Object.defineProperty(e, Symbol.toStringTag, { value: "Module" }),
    Object.defineProperty(e, "__esModule", { value: !0 });
  }),
  (r.o = function(e, t) {
    return Object.prototype.hasOwnProperty.call(e, t);
  })
});
```



Webpack

index.js

```
console.log("hello-world");  
const x = new Promise();
```



Что мы говорим готовым решениям?



create-react-app
ng-cli
gulp



Демонстрационный проект

- <https://github.com/discomaps/discomaps.github.io>

Спасибо за внимание



Форма обратной связи