

WFDD WEEK3

<https://breeswish.org/blog/page/wfdd>

Review

- URI
- Relative URI
- HTML Entities
- CSS Selectors

Review: URI

`https://zh.wikipedia.org/zh/同济大学`

- **scheme:** https
- **host:** zh.wikipedia.org
- **port:** 443 (*https default*)
- **path:** /zh/同济大学

Review: URI

`https://localhost:8080/hello_world`

- **scheme:** https
- **host:** localhost
- **port:** 8080
- **path:** /hello_world

Review: URI

`http://127.0.0.1:2333/wfdd#title`

- `scheme`: `http`
- `host`: `127.0.0.1`
- `port`: `2333`
- `path`: `/wfdd`
- `fragment(hash)`: `#title`

Review: URI

`https://www.facebook.com/`

- **scheme:** https
- **host:** www.facebook.com
- **port:** 443 (*https default*)
- **path:** /

Review: URI

`http://dict.youdao.com/search?q=serendipitous&keyfrom=dict.index`

- **scheme:** http
- **host:** dict.youdao.com
- **port:** 80 (*http default*)
- **path:** /search
- **search:** ?q=serendipitous&keyfrom=dict.index

Review: Relative URI

Base: `https://example.com/hello/world/index.html`

`/example.html`

`https://example.com/example.html`

`//cdnjs.org/jquery`

`https://cdnjs.org/jquery`

`img.jpg`

`https://example.com/hello/world/img.png`

Review: Relative URI

Base: `https://example.com/hello/world/`

`/example.html`

`https://example.com/example.html`

`//cdnjs.org/jquery`

`https://cdnjs.org/jquery`

`img.jpg`

`https://example.com/hello/world/img.png`

Review: Relative URI

Base: `https://example.com/hello/world`

`/example.html`

`https://example.com/example.html`

`//cdnjs.org/jquery`

`https://cdnjs.org/jquery`

`img.jpg`

`https://example.com/hello/img.png`

Review: Relative URI

Base: `https://example.com/hello/world.html`

`/example.html`

`https://example.com/example.html`

`//cdnjs.org/jquery`

`https://cdnjs.org/jquery`

`img.jpg`

`https://example.com/hello/img.png`

Review: (*Common*) HTML Entities

Char	Entity Name	Description
(space)	 	non-breaking space
<	<	less-than mark
>	>	greater-than mark
&	&	ampersand

Review: (*Basic*) CSS Selectors

Select by property or tag name

Selector	Example	Description
<code>.class</code>	<code>.key</code>	选择 <code>class="key"</code> 的所有元素
<code>#id</code>	<code>#principal</code>	选择 <code>id="principal"</code> 的所有元素
<code>element</code>	<code>p</code>	选择所有 <code><p></code> 元素

- * `class="x"` means *x* in *classList*
- * `id="y"` means *id* is equal to *y*

Review: (*Basic*) CSS Selectors

Combine selector

Example	Description
<code>div.key</code>	选择 <code>class="key"</code> 的所有 <code><div></code> 元素
<code>.button.hover</code>	选择 <code>class="button"</code> 且 <code>class="hover"</code> 的所有元素
<code>div.a.b</code>	选择 <code>class="a"</code> 且 <code>class="b"</code> 的所有 <code><div></code> 元素

- * `class="x"` means *x* in *classList*
- * `id="y"` means *id* is equal to *y*

Review: (*Basic*) CSS Selectors

Select by relation

Selector	Example	Description
E E	div p	选择 <div> 元素内部所有 <p> 元素
E>E	.key>span	选择父元素符合 class="key" 的所有 元素

W3Task1: CSS Selector Review

编写 CSS 选择器来选中指定元素。完成所有5个任务。

请在 Chrome 下访问此页面完成任务：

https://breeswish.org/file/wfdd/week3_task1

(加载较慢，请耐心等待)

Share

Front-end Development

is difficult

is easy

Share

Front-end Development

is everything

is nothing

W2Task3: Step by Step Demo



A Piece of News

W3C Declares HTML5 Standard Complete



Find out more:

<http://techcrunch.com/2014/10/28/w3c-declares-html5-standard-done/>

<http://www.chinaw3c.org/html5-press.html>

the JavaScript Language

Part 1

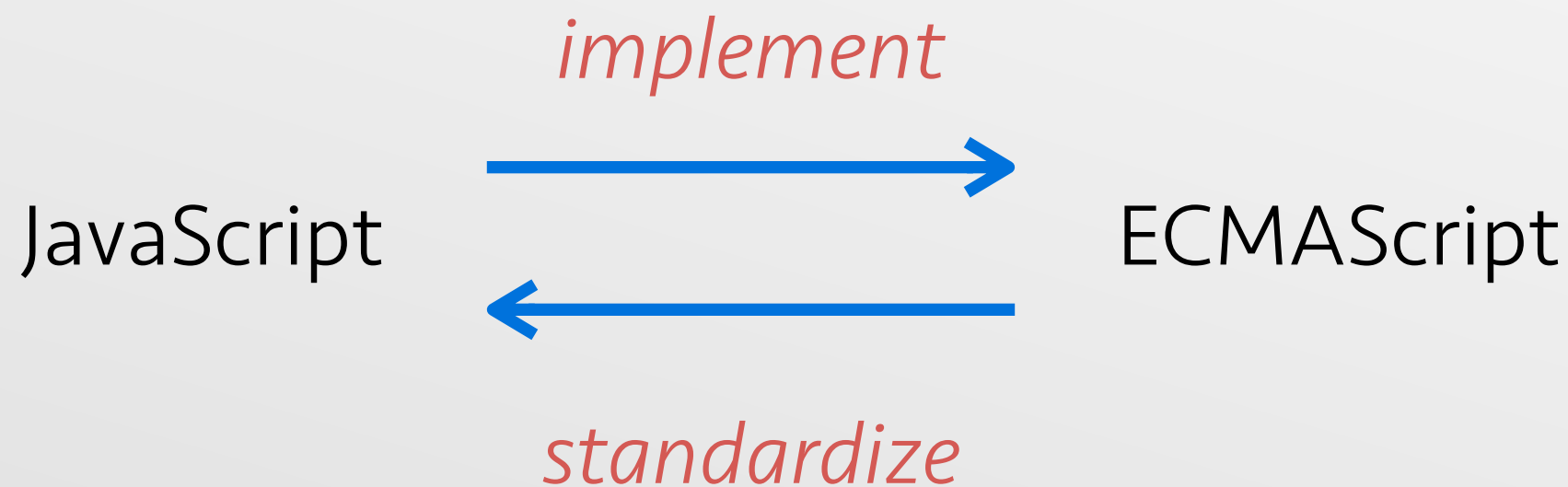
JavaScript

- Object-Oriented
- Scripting Language
- No Standalone Executing Environment
(*via Web Browser, NodeJS, ...*)

JavaScript & Java?

雷峰塔 & 雷锋

JavaScript & ECMAScript?



Find out more:

https://developer.mozilla.org/zh-CN/docs/Web/JavaScript/Guide/JavaScript_Overview

Comments

```
// Single line comment
```

```
/*  
this is a  
multi-line  
comment  
*/
```

Data Types

Number: 5, 16.5, ...

Boolean: true, false

String: "hello"

null: null

undefined: undefined

Array: [1, 2, 3]

Object: { x:1, y:2 }

Define Variables

```
var answer = 0;  
answer = 0x14CC27;  
answer = "Hello\nWorld";  
answer = 'Hello"World';  
answer = true;  
answer = null;  
answer = undefined;  
  
var answer2;  
// answer2 is equal to undefined
```

Compare

```
1 == "1" //true  
1 != "1" //false
```

Recommended:

```
1 === "1" //false  
1 !== "1" //true
```

Operators

`x++;`

`--x;`

`x += y;`

`x <<= y;`

`...`

Operators

```
var hw = "Hello" + " ";  
hw += 'World';  
hw += ' ';  
hw += 0x14CC27;  
hw += ' ';  
hw += 0x14CC27.toString(16).toUpperCase()  
//hw === "Hello World 1362983 14CC27"
```

```
var b1 = "1" + "2";  
// b1 === "12"
```

```
var b2 = parseInt("1.1") + parseFloat("2.5")  
// b2 === 3.5
```

Operators

```
var a1 = true && true;      // t && t returns true
var a2 = true && false;     // t && f returns false
var a3 = false && true;     // f && t returns false
var a4 = false && (3 == 4); // f && f returns false
var a5 = "Cat" && "Dog";    // t && t returns Dog
var a6 = false && "Cat";    // f && t returns false
var a7 = "Cat" && false;    // t && f returns false
```

```
var o1 = true || true;     // t || t returns true
var o2 = false || true;    // f || t returns true
var o3 = true || false;    // t || f returns true
var o4 = false || (3 == 4); // f || f returns false
var o5 = "Cat" || "Dog";   // t || t returns Cat
var o6 = false || "Cat";   // f || t returns Cat
var o7 = "Cat" || false;   // t || f returns Cat
```

Objects

```
var staff = {  
  name: "Wenxuan Shi",  
  age: 19.2,  
  education: [  
    { begin: 2013, end: 2017, name: "Tongji University"},  
    { begin: 2010, end: 2013, name: "4C" }  
  ]  
};
```

```
staff.education[0].current = true;  
staff['education'][1].current = false;
```


Conditional Statements: if

```
if (day_of_today == 'Friday') {  
    eatPizza();  
} else {  
    eatBeef();  
}
```

```
var grade = (score > 60 ? 'Pass' : 'Fail');
```

Conditional Statements: switch

```
switch(opcode) {  
    case 1:  
        doSomething();  
        break;  
    case 2:  
    case 3:  
        doSomethingElse();  
        break;  
    default:  
        doNothing();  
}
```

Loop Statements

for

```
var sum = 0;  
for (var i = 1; i < 100; ++i) {  
    sum += i;  
    if (sum > 200) break;  
}
```

do..while

```
var i = 0;  
do {  
    i++;  
    console.log(i);  
} while (i < 5);
```

Loop Statements

while

```
var s = 0, i = 0;
while (true) {
    s += ++i;
    if (s > 200) break;
}
```

for..in

```
var obj = {p1: 1, p2: 2, p3: 3};
for (var key in obj) {
    console.log(obj[key]);
}
// => 1 2 3
```

W3Task2: Prime Number

Output prime numbers in (1, 100)

```
console.log( )
```

Functions

```
function a_plus_b(a, b) {  
    return a + b;  
}
```

```
a_plus_b(1, 2) // => 3
```

```
var Foo = {  
    bar: function(x) { return x*x; }  
};
```

```
Foo.bar(2) // => 4
```

Closures

```
function foo(bar) {  
  function getBar() {  
    return bar;  
  }  
  return getBar();  
}
```

```
foo(123) // => 123
```

<The Birth & Death of JavaScript>

Chinese & English subtitle:

http://v.youku.com/v_show/id_XODAzOTY1MTM2.html

Discussion on Hacker News:

<https://news.ycombinator.com/item?id=7605687>