

极客大学前端进阶训练营

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前手机淘宝前端负责人

重学前端

JavaScript

JavaScript

- Atom
- Expression
- Statement
- Structure
- Program/Module

Atom

Grammar

- Literal
- Variable
- Keywords
- Whitespace
- Line Terminator

Runtime

- Types
- Execution Context

Types

- Number
- String
- Boolean
- Object
- Null
- Undefined
- Symbol

Number

- IEEE 754 Double Float
 - Sign (1)
 - Exponent (11)
 - Fraction (52)



Number—Grammar

- *DecimalLiteral*

- *0*
- *0.*
- *.2*
- *1e3*

`0.toString();`
`0.toString();`

- *BinaryIntegerLiteral*

- *0b111*

- *OctalIntegerLiteral*

- *0o10*

- *HexIntegerLiteral*

- *0xFF*

Number—Practice

- Safe Integer
- Float Compare

```
Number.MAX_SAFE_INTEGER.toString(16)  
"1fffffffffffff"
```

```
Math.abs(0.1 + 0.2 - 0.3) <= Number.EPSILON
```

String

- Character
- Code Point
- Encoding

a

97

0	1	1	0	0	0	0	1
---	---	---	---	---	---	---	---

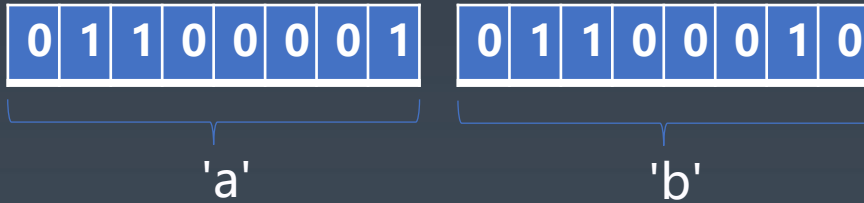
String

- ASCII
- Unicode
- UCS
- GB
 - GB2312
 - GBK(GB13000)
 - GB18030
- ISO-8859
- BIG5

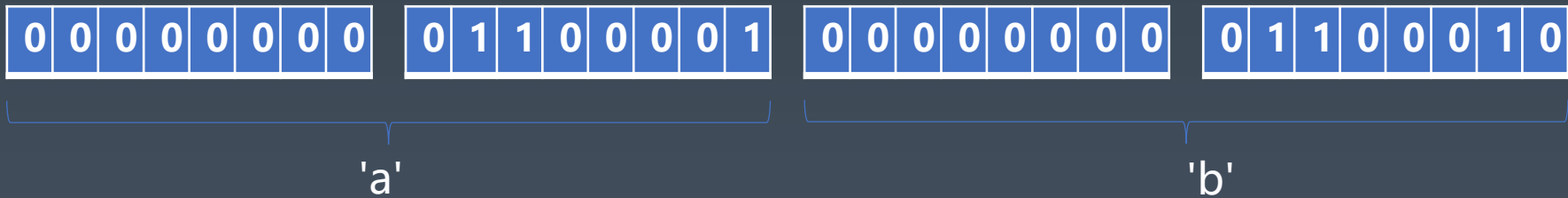
String—Encoding

- UTF

UTF8



UTF16



String—Encoding

- UTF

UTF8



UTF16



String—Homework

```
function UTF8_Encoding(string){  
    //return new Buffer();  
}
```

String—Grammar

"abc"

'abc'

`abc`

String—Grammar Challenge

A regular Expression to match string literal.

String—Grammar Answer

```
"(?:[^\n\\r\u2028\u2029]|\\(?:[\"\\bfnrtv\n\r\u2028\u2029]|r\n)|\\x[0-9a-fA-F]{2}|\\u[0-9a-fA-F]{4}|\\[^\u0000-9ux\"\\bfnrtv\n\\r\u2028\u2029])*"

```

```
'(?:[^\n\\r\u2028\u2029]|\\(?:[\"\\bfnrtv\n\r\u2028\u2029]|r\n)|\\x[0-9a-fA-F]{2}|\\u[0-9a-fA-F]{4}|\\[^\u0000-9ux'\"\\bfnrtv\n\\r\u2028\u2029])*'

```

String—Grammar—Template

`ab\${x}abc\${y}abc`

- `ab\${
- }abc\${
- }abc`

Boolean

- true
- false
- 真的没啥好讲的.....

Null & Undefined

- null
- undefined
- void 0;

```
function f(){  
    var undefined = 1;  
    console.log(undefined);  
}
```

```
function f(){  
    var null = 0;  
    console.log(null);  
}
```

THANKS! |  极客大学