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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

- Grammar Tree vs Priority
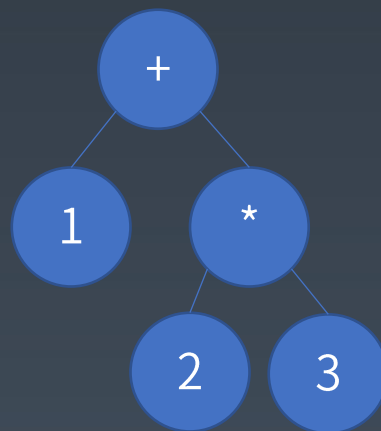
- Left hand side & Right hand side

Runtime

- Type Convertion

- Reference

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Grammar

- Tree vs Priority

  - + -
  - * /
  - ()

```
      ( + )
     /     \
   ( 1 )  ( * )
          /   \
       ( 2 ) ( 3 )
```

1 + 2 * 3

Expressions

- Member
  - a.b
  - a[b]
  - foo`string`
  - super.b
  - super['b']
  - new.target
  - new Foo()

- New
  - new Foo

Example:
new a()()
new new a()

Reference

- Object
- Key

- delete
- assign

Expressions

- Call
  - foo()
  - super()
  - foo()['b']
  - foo().b
  - foo()`abc`

Example:
new a()['b']

Expressions

- Left Handside & Right Handside

Example:

a.b = c;

a+b = c

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Expressions

- Update
  - a ++
  - a --
  - -- a
  - ++ a

Example:
++ a ++
++ (a ++)

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Expressions

- Update
  - a ++
  - a --
  - -- a
  - ++ a

Example:
++ a ++
++ (a ++)

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Expressions

- Unary
  - delete a.b
  - void foo()
  - typeof a
  - + a
  - - a
  - ~ a
  - ! a
  - await a

Expressions

- Exponental
  - **

Example:
3 ** 2 ** 3
3 ** (2 ** 3)

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Expressions

- Multiplicative
  - * / %
- Additive
  - + -
- Shift
  - << >> >>>
- Relationship
  - < > <= >= instanceof in

Expressions

- Equality
  - ==
  - !=
  - ===
  - !==
- Bitwise
  - & ^ |

Expressions

- Logical
  - &&
  - ||
- Conditional
  - ? :

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Type Convertion

- a + b
- "false" == false
- a[o] = 1;

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Type Convertion

	Number	String	Boolean	Undefined	Null	Object	Symbol
Number	-		0 false	×	×	Boxing	×
String		-	"" false	×	×	Boxing	×
Boolean	true 1 false 0	'true' 'false'	-	×	×	Boxing	×
Undefined	NaN	'Undefined'	false	-	×	×	×
Null	0	'null'	false	×	-	×	×
Object	valueOf	valueOf toString	true	×	×	-	×
Symbol	×	×	×	×	×	Boxing	-

Unboxing

- ToPremitive
- toString vs valueOf
- Symbol.toPrimitive

```
var o = {
    toString() { return "2" },
    valueOf() { return 1 },
    [Symbol.toPrimitive]() { return 3 }
}
```

```
var x = {}          console.log("x" + o)
x[o] = 1
```

Boxing

类型	对象	值
Number	new Number(1)	1
String	new String("a")	"a"
Boolean	new Boolean(true)	true
Symbol	new Object(Symbol("a"))	Symbol("a")

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Exercise

StringToNumber

NumberToString

THANKS！ | G 极客大学