POO en JS

Sistemas Web

Class declarations

```
class Rectangle {
  constructor(height, width) {
    this.height = height;
    this.width = width;
  }
}
```

Class Expressions

```
// unnamed
let Rectangle = class {
  constructor(height, width) {
    this.height = height;
    this.width = width;
  }
};
```

Methods

oopjs

```
1  class Rectangle {
2    constructor(height, width) {
3      this.height = height;
4      this.width = width;
5    }
6    // Getter
7    get area() {
8      return this.calcArea();
9    }
10   // Method
11   calcArea() {
12     return this.height * this.width;
13   }
14 }
15
16 const square = new Rectangle(10, 10);
17
18 console.log(square.calcArea()); // 100
19 console.log(square.area); // 100
```

Static methods and properties

```
class Point {
  constructor(x, y) {
    this.x = x;
    this.y = y;
  }

  static displayName = "Point";
  static distance(a, b) {
    const dx = a.x - b.x;
    const dy = a.y - b.y;

    return Math.hypot(dx, dy);
  }
}

const p1 = new Point(5, 5);
const p2 = new Point(10, 10);
p1.displayName; // undefined
p1.distance;    // undefined
p2.displayName; // undefined
p2.distance;    // undefined

console.log(Point.displayName);      // "Point"
console.log(Point.distance(p1, p2)); //
7.0710678118654755
```

Public field declarations

```
class Rectangle {
  height = 0;
  width;
  constructor(height, width) {
    this.height = height;
    this.width = width;
  }
}
```

Private field declarations

```
class Rectangle {
  #height = 0;
  #width;
  constructor(height, width) {
    this.#height = height;
    this.#width = width;
  }
}
```

Sub classing with **extends**

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Super class calls with **super**

```
class Animal {
  constructor(name) {
    this.name = name;
  }

  speak() {
    console.log(`${this.name} makes a noise.`);
  }
}

class Dog extends Animal {
  constructor(name) {
    super(name); // call the super class constructor and pass in the name
parameter
  }

  speak() {
    console.log(`${this.name} barks.`);
  }
}

const d = new Dog('Mitzie');
d.speak(); // Mitzie barks.
```