JavaScript Classes

Classes are introduced JavaScript with ECMAScript 2015 (also known as ES6)

Classes in JavaScript are templates for JavaScript Objects.

Syntax

Use the keyword `class` to create a class. Always add a method named `constructor()`:

```
class ClassName {
  constructor() { ... }
}
```

Example

```
class Car {
  constructor(name, year) {
    this.name = name;
    this.year = year;
  }
}
```

The example above creates a class named "Car". The class has two initial properties: "name" and "year".

Using a Class

When you have a class, you can use the class to create objects:

Example

```
const myCar1 = new Car("Ford", 2014);
const myCar2 = new Car("Audi", 2019);
```

The example above uses the **Car class** to create two **Car objects**.

The constructor method is called automatically when a new object is created.

The Constructor Method

The constructor method is a special method:

- It has to have the exact name "constructor"
- It is executed automatically when a new object is created
- It is used to initialize object properties

If you do not define a constructor method, JavaScript will add an empty constructor method.

Class Methods

Class methods are created with the same syntax as object methods. Use the keyword `class` to create a class. Always add a `constructor()` method. Then add any number of methods.

Syntax

```
class ClassName {
  constructor() { ... }
  method_1() { ... }
  method_2() { ... }
  method_3() { ... }
}
```

Create a Class method named "age", that returns the Car age:

Example

```
class Car {
  constructor(name, year) {
    this.name = name;
    this.year = year;
  }
  age() {
    const date = new Date();
    return date.getFullYear() - this.year;
  }
}

const myCar = new Car("Ford", 2014);
document.getElementById("demo").innerHTML = "My car is " + myCar.age()
+ " years old.";
```

You can send parameters to Class methods:

Example

```
class Car {
  constructor(name, year) {
    this.name = name;
    this.year = year;
  }
  age(x) {
    return x - this.year;
  }
}

const date = new Date();
let year = date.getFullYear();

const myCar = new Car("Ford", 2014);
document.getElementById("demo").innerHTML=
"My car is " + myCar.age(year) + " years old.";
```