

# JavaScript-Objects

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## Objects in JavaScript

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In JavaScript, an **object** is a collection of key-value pairs. Each key is unique and corresponds to a specific value.

### Creating Objects

There are several ways to create objects in JavaScript:

#### Using the `Object` Constructor

```
let person = new Object();
person.name = 'John Doe';
person.age = 30;
```

#### Using Literal Syntax

```
let person = {
  name: 'John Doe',
  age: 30
};
```

Both of these examples create an object with two properties: `name` and `age`.

### Properties

**Properties** are the key-value pairs that make up an object. They can be accessed using dot notation (e.g., `person.name`) or bracket notation (e.g., `person['name']`).

#### Accessing Properties

```
let person = {
  name: 'John Doe',
  age: 30
};

console.log(person.name); // John Doe
console.log(person.age); // 30
```

## Updating Properties

```
let person = {
  name: 'John Doe',
  age: 30
};

person.age = 31;
console.log(person.age); // 31
```

## Methods

**Methods** are functions that belong to an object. They can be defined using the `function` keyword or the shorthand syntax `() => { ... }`.

## Defining Methods

```
let person = {
  name: 'John Doe',
  age: 30,

  sayHello: function() {
    console.log('Hello, my name is ' + this.name);
  },

  printAge: () => console.log(this.age)
};

person.sayHello(); // Hello, my name is John Doe
person.printAge(); // 30
```

## Object Methods

Objects have several built-in methods that can be used to manipulate them. Here are a few examples:

**`Object.keys()`**: Returns an array of the object's property names.

```
let person = {
  name: 'John Doe',
  age: 30
};

console.log(Object.keys(person)); // ['name', 'age']
```

**Object.values ()** : Returns an array of the object's property values.

```
let person = {
  name: 'John Doe',
  age: 30
};

console.log(Object.values(person)); // ['John Doe', 30]
```

**Object.assign ()** : Copies properties from one or more objects to another.

```
let person1 = {
  name: 'John Doe',
  age: 30
};

let person2 = {};

Object.assign(person2, person1);

console.log(person2); // {name: 'John Doe', age: 30}
```

I hope this helps! Let me know if you have any questions or need further clarification.

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*Curated by Brajesh Kumar*