JavaScript Data Types

In JavaScript, data types can be broadly categorized into primitive and non-primitive (reference).

Primitive Data Types

Primitive data types are the most basic data types in JavaScript. They are immutable, meaning their values cannot be changed once they are created. JavaScript provides seven primitive data types.

1. String
2. Number
3. Boolean
4. Undefined
5. Null
6. Symbol
7. Bigint

Non-Primitive (Reference) Data Types

Non-primitive data types, also known as reference types, include objects. These types are mutable and are accessed by reference.

1. Object

So, JavaScript has 8 Datatypes

1. String
2. Number
3. Boolean
4. Bigint
5. Undefined
6. Null
7. Symbol
8. Object

String:

Represents a sequence of characters.

```
let name = "Alice";
let greeting = 'Hello, world!';
```

Number:

Represents both integer and floating-point numbers.

```
let age = 25; // Integer
let price = 19.99; // Floating-point number
```

Boolean:
Represents a logical entity and can have two values: true or false.

```
let isStudent = true;
let isRaining = false;
```

Bigint:
Represents whole numbers larger than $2^{53} - 1$.

```
let bigNumber = BigInt(12345678901234567890123456789);
console.log(bigNumber); // Output: 12345678901234567890123456789n
```

Undefined:
Represents an uninitialized variable.

```
let unassignedVariable;
console.log(unassignedVariable); // Output: undefined
```

Null:
Represents the intentional absence of any object value.

```
let emptyValue = null;
console.log(emptyValue); // Output: null
```

Symbol:
Represents a unique identifier.

```
let sym1 = Symbol();
let sym2 = Symbol();
console.log(sym1 === sym2); // Output: false
```

Object:
Represents a collection of properties, each with a key and a value with curly braces{}.

```
let person = {
  name: "John",
  age: 30,
  isEmployed: true
};
console.log(person); // Output: { name: 'John', age: 30, isEmployed: true }
```