# Javascript Datatypes

JavaScript has 8 main data types categorized as primitive and non-primitive:

1. **Primitive Data Types:** These hold a single immutable value (can't be changed once created). There are 7 primitive types:

   - **Number:** Numeric values, including integers and floating-point.

     ```
     let x = 42;
     let pi = 3.14;
     ```

   - **String:** Text wrapped in single, double, or backticks.

     ```
     let name = "John";
     let greeting = 'Hello';
     ```

   - **Boolean:** Logical true or false.

     ```
     let isActive = true;
     ```

   - **Undefined:** A variable declared but not assigned a value.

     ```
     let age;
     console.log(age); // undefined
     ```

   - **Null:** Represents intentional absence of any object value.

     ```
     let data = null;
     ```

   - **Symbol:** Used to create unique identifiers.

     ```
     let sym = Symbol("id");
     ```

   - **BigInt:** For integers beyond the safe integer range of Number.

     ```
     let big = 1234567890123456789012345678901234567890n;
     ```

2. **Non-primitive Data Type:**

   - **Object:** Collections of properties (key-value pairs), including arrays, functions, dates, etc.

     ```
     let person = { firstName: "Alice", age: 25 };
     ```

```
let arr = [1, 2, 3];
```

You can use the `typeof` operator to check a variable's data type (except `null` returns `"object"` as a known JS quirk).

This categorization helps in understanding how values behave and are stored in memory in JavaScript programs. [1] [2] [3] [4] [5] [6]

Let me know if you want code examples or explanations for any specific data types.

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1. https://www.w3schools.com/js/js_datatypes.asp

2. https://developer.mozilla.org/en-US/docs/Glossary/Primitive

3. https://www.geeksforgeeks.org/javascript/primitive-and-non-primitive-data-types-in-javascript/

4. https://developer.mozilla.org/en-US/docs/Web/JavaScript/Guide/Data_structures

5. https://javascript.info/types

6. https://www.programiz.com/javascript/data-types