

TOPIC

1

JAVASCRIPT

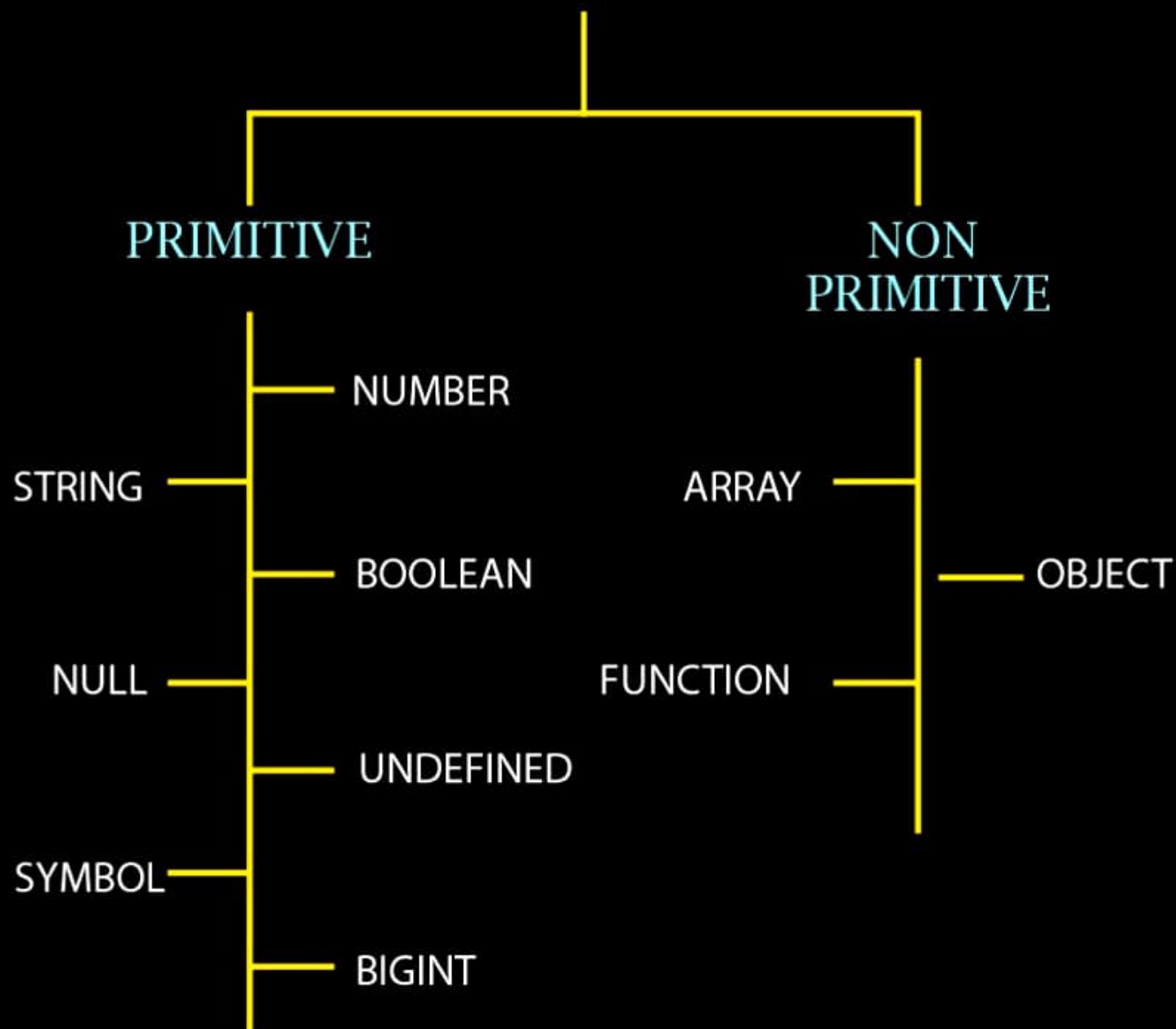


---

| DATATYPES

①

# JAVASCRIPT



## ◇ PRIMITIVE DATA TYPE

- In javascript, primitive data types are the basic building blocks of data.
- These are immutable, meaning their values cannot be changed once set.

## ◇ NUMBER

- Represents numeric data, including integers and floating-point numbers.
- **Return type** : number
- `let age = 25 // integer`  
`let price = 99.99 // floating-point number`
- `console.log(typeof age) // output : number`

## ◇ STRING

- Represents textual data enclosed within single or double quotes.
- **Return type** : string
- `let firstName = 'john'`  
`let greet = "hello"`
- `console.log (typeof firstName) // o/p : string`

## ◇ BOOLEAN

- Represents a logical entity with two values: **true** or **false**.
- **Return type** : boolean
- `let isTrue = true`  
`let isFalse = false`
- `console.log (typeof isTrue) // o/p : boolean`

## ◇ UNDEFINED

- Represents a variable that has been declared but **not assigned** a value.
- **Return type** : undefined
- `let user` // only declared not assigned
- `console.log(typeof user)` // o/p : undefined

## ◇ NULL

- Represents the intentional absence of an object value.
- **Return type** : object
- `let data = null`
- `console.log(typeof data)` // o/p : object

null is considered an **object** type due to **legacy** reasons.

## ◇ SYMBOL

- Represents a unique identifier.
- Symbols are often used to add properties to objects **without the risk of name collisions**.
- **Return type** : symbol
- `let newId = Symbol('id')`
- `console.log(typeof newId) // o/p: symbol`

## ◇ BIGINT

- Represents whole numbers **larger than the** Number type can represent.
- **Return type** : bigint
- `let num = 123456789012345678901234n`
- `console.log(typeof num) // o/p: bigint`

## ◆ NON-PRIMITIVE DATA TYPE

- These are **mutable**, meaning they can be changed after creation.

## ◆ OBJECT

- Represents a collection of **key-value pairs**.
- Objects can be created using **{}** or **new Object()**.
- **Return type** : object
- ```
let user = {  
  name: 'Alice',  
  age: 30  
}
```
- ```
console.log(user.name) // o/p: Alice
```
- ```
console.log(user.age) // o/p: 30
```



## ◇ ARRAY

- Represents a **list-like collection** of elements, where each element can be **accessed via an index**.
- **Return type** : object
- `let number = [1,2,3,4,5]`
- `console.log (number[2])`     `// o/p : 3`

## ◇ FUNCTION

- Represents a reusable block of code that can be **invoked by name**.
- **Return type** : object function
- `let myFunction = function() {  
    console.log ("hello world")  
}`
- `console.log (myFunction)`     `// o/p : hello world`