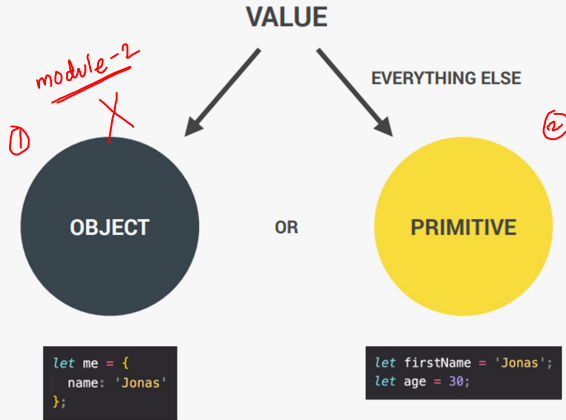


# OBJECTS AND PRIMITIVES



\* *let* year = 2001; *let* name = "Amrta"; *let* age = 10; *let* s = "abcd";

*data types are for values not variables.*

*mentioning data types for variables*

## THE 7 PRIMITIVE DATA TYPES

*3 main datatypes*

1. **Number:** Floating point numbers 🖱 Used for decimals and integers

```
let age = 23;
```

2. **String:** Sequence of characters 🖱 Used for text

```
let firstName = 'Jonas';
```

3. **Boolean:** Logical type that can only be true or false 🖱 Used for taking decisions

```
let fullAge = true;
```

✓ **Undefined:** Value taken by a variable that is not yet defined ('empty value')

```
let children;
```

5. **Null:** Also means 'empty value'

*both are similar (empty)*

✗ **Symbol (ES2015):** Value that is unique and cannot be changed [Not useful for now]

✗ **BigInt (ES2020):** Larger integers than the Number type can hold

*we will not come across these much*

👉 **JavaScript has dynamic typing** We do **not** have to manually define the data type of the value stored in a variable. Instead, data types are determined **automatically**.

*Value has type, NOT variable!*

based  
upon  
datatype

`int a = 10;`  
`string s = "abcd";`

- C++/Java doesn't automatically know about the datatype of value
- = variables are attached to datatypes

`int a = 10;`

`a = 20;`

~~`a = "xyz";`~~

a can only hold integer (int)

`let a = 10;` → Number  
`let s = "abcd";` → string

- automatically knows
- values are attached to datatypes

`let a = 10;`

`a = 20;`

`a = "xyz";` ✓

a can hold anything  
because datatypes are  
for values.

# other ways to declare a variable :

① let year = 2001;

② const year = 2001;

③ var year = 2001; X

→ cannot be changed  
→ cannot be empty / undefined.

① Always, I prefer using const.

② If you feel that the value of a variable needs to be changed then only use let.

→ Assume var, let works the same for now,  
differences are in scopes (later in functions lecture)

→ var is not at all used in present time. only use let / const.

9:05 PM — 9:20 PM  
BREAK



# \* operator precedence :

const curYear = 2024

curYear - 1991 > curYear - 2018

• BODMAS •

true - on - 1  
false - off - 0

①  $2024 - 1991 > 2024 - 2018$

$33 > 2024 - 2018$

$false - 2018$

$0 - 2018$   
 $= -2018$

②  $2024 - 1991 > 2024 - 2018$

$2024 - 1991 > 6$

$2024 - true$

$2024 - 1$   
 $= 2023$

①  $2024 - 1991 > 2024 - 2018$

$33 > 2024 - 2018$  ②

③  $33 > 5$

true

( $\rightarrow$  associativity  $L \rightarrow R$ )