REVIEW: PRIMITIVES, OBJECTS AND THE JAVASCRIPT ENGINE

PRIMITIVES

👉 Number
👉 String
👉 Boolean
👉 Undefined
👉 Null
👉 Symbol
👉 BigInt

PRIMITIVE TYPES

JS ENGINE

STORED IN

CALL STACK

HEAP

STORED IN

OBJECTS

👉 Object literal
👉 Arrays
👉 Functions
👉 Many more...

REFERENCE TYPES
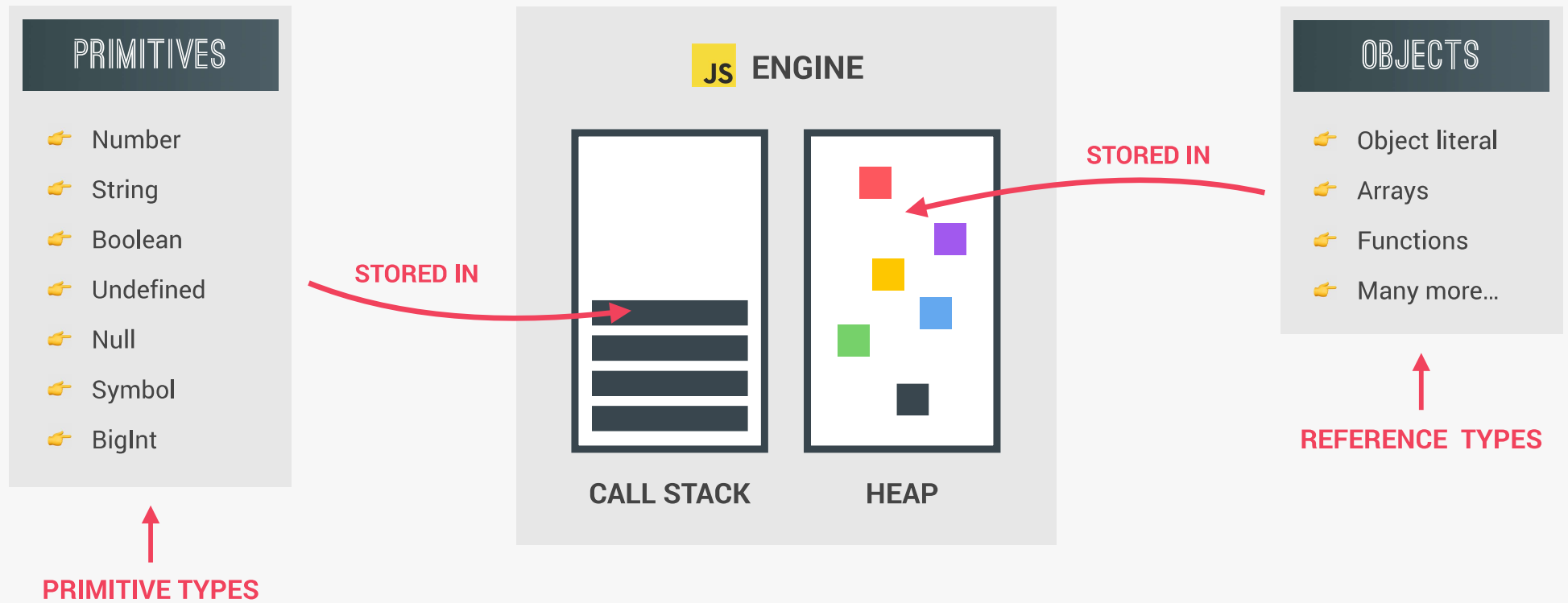
PRIMITIVE VS. REFERENCE VALUES

👉 **Primitive** values example:

```
let age = 30;
let oldAge = age;
age = 31;
console.log(age); // 31
console.log(oldAge); // 30
```
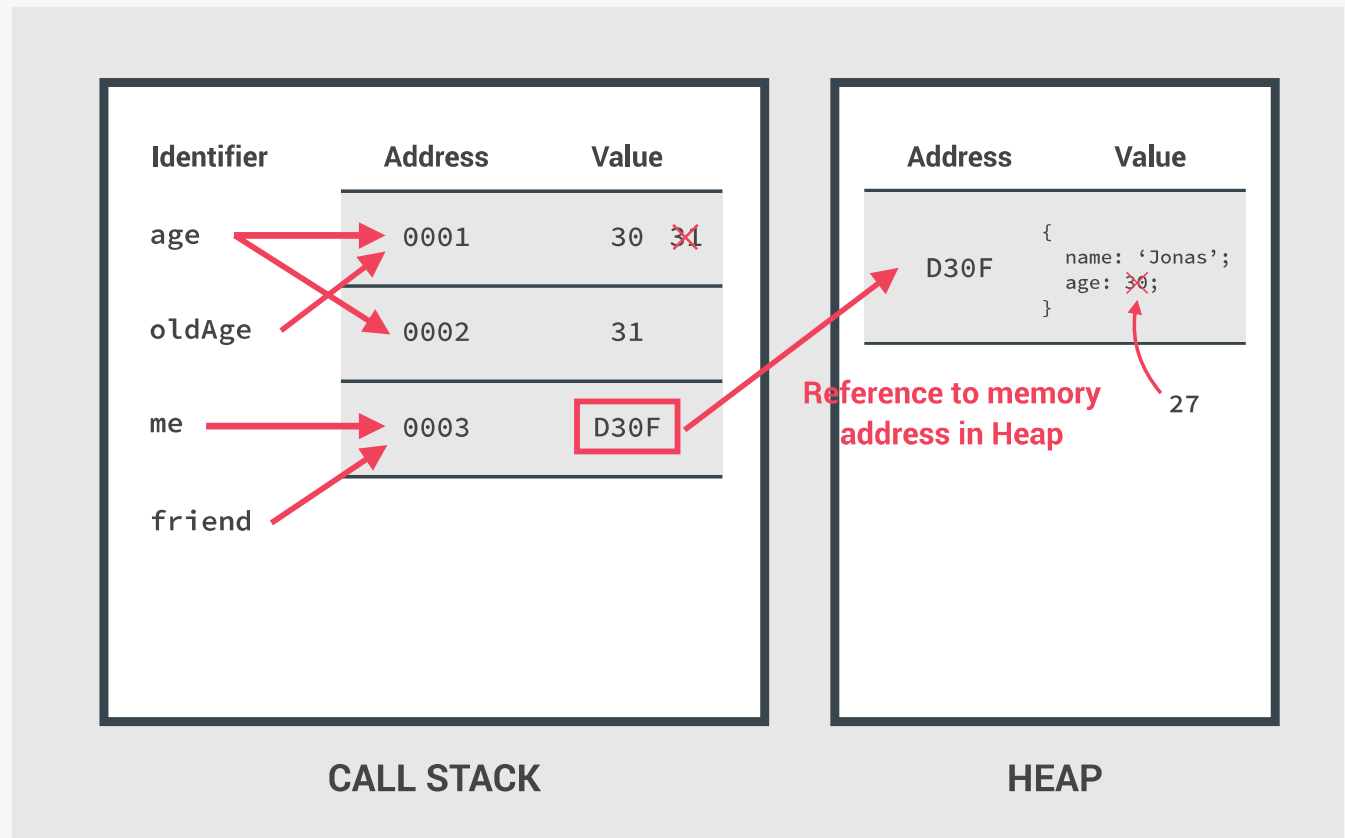
👉 **Reference** values example:

```
const me = {
  name: 'Jonas'
  age: 30
};
const friend = me;
friend.age = 27;

console.log('Friend:', friend);
// { name: 'Jonas', age: 27 }

console.log('Me:', me);
// { name: 'Jonas', age: 27 }
```

No problem, because we're NOT changing the *value* at address 0003!

CALL STACK

Identifier	Address	Value
age	0001	30 31
oldAge	0002	31
me	0003	D30F
friend		

HEAP

Address	Value
D30F	{ name: 'Jonas'; age: 30; }

27

Reference to memory address in Heap

"HOW JAVASCRIPT WORKS BEHIND THE SCENES" TOPICS FOR LATER... ⏳

1   **Prototypal Inheritance**   👉   Object Oriented Programming (OOP) With JavaScript

2   **Event Loop**   👉   Asynchronous JavaScript: Promises, Async/Await and AJAX

3   **How the DOM Really Works**   👉   Advanced DOM and Events