JAVASCRIPT VARIABLES

IN THIS LESSON

What is a variable?

Data types: number, string, Boolean

Variable declaration/initialization/assignment

Let/const/var

Null & undefined

WHAT IS A VARIABLE?

A fundamental building block of JavaScript

General concept: A named container for some value

You can conceptualize it as a box with a label

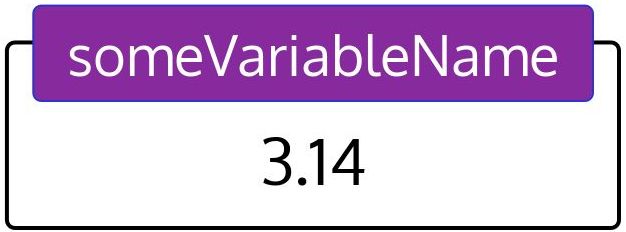
The box can hold different kinds of data

DATA TYPES: NUMBER, STRING, BOOLEAN

There are more data types in JavaScript - we will focus on these three for now

DATA TYPES: NUMBER, STRING, BOOLEAN

Numbers can be positive or negative, whole or decimal



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Boolean values are either true or false (no quotes)

VARIABLE DECLARATION: LET

Declare (create) a variable using the **let** keyword:

```
let myScore;
```

Terminate statements with a semicolon

Statements are instructions to the computer - this one says: create a variable named myScore

VARIABLE INITIALIZATION & ASSIGNMENT

Most of the time, you will both declare a variable and assign a value to it at the same time, using the assignment operator **=**

```
let myScore = 1055;
```

The first time you assign a value to a variable is called initializing the variable

VARIABLE REASSIGNMENT

To reassign the value of a variable, use the variable name, the assignment operator, and a new value - do not use **let** again

```
let myScore = 1055;
myScore = 1056;
```

VARIABLE DECLARATION: CONST

You can also use the **const** keyword:

```
const playerName = 'Luigi';
```

You must initialize a **const** variable when you declare it:

~~const playerName;~~

You cannot reassign a const variable:

~~playerName = 'Mario;~~

VARIABLE DECLARATION: CONST VS LET

Use **let** for variables where the values could be reassigned

Use **const** for variables where the values will not be reassigned

```
const playerName = 'Luigi';
```

```
let score = 0;
```

PRE-ES6 VARIABLE DECLARATION: VAR

2015: The **let** and **const** keywords were introduced in ES6

Before ES6, JavaScript only had one variable declaration keyword, **var**:

```
var score = 1055;
```

let and **const** were introduced to correct some issues with the way **var** works so use them instead of **var**, but be aware that you will often run into **var** in older code

NULL & UNDEFINED

2 more JavaScript data types are **null** and **undefined**

Each only has a single possible value - the value of **null**, and the value of **undefined**

null: empty/non-existent value, intentional absence of a value

undefined: value given to variables that have been declared but not initialized: `let x;`

Functions can also return **undefined** - discussed in next lesson