

# PATH 2 TECH

Javascript Variables



# CONSOLE

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# WHAT IS THE CONSOLE?

- The console allows you to print a message in javascript to the user.

```
console.log("Hello, World!");
```

```
Hello, World!
```

```
> console.log("Hello world");
```

```
Hello world VM110:1
```

# VARIABLES

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# WHAT IS A VARIABLE?

A variable is a value that can be reused in a program

It can be a string

- Ex: "My Name is a String"

It can be a number

- EX: 21 or 23.54

It can be an object, boolean, or function  
(these topics will be covered in detail in later lessons)

# HOW TO DECLARE A VARIABLE

There are two ways to declare a variable in javascript. You can use either the let or const keywords

How to declare a let variable:

```
let my_name = "John";
```

How to declare a const variable:

```
const my_age = 30;
```

# LET VS CONST

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# WHEN USING LET

When using let, you can change the value of the variable in your program.

You can also declare a let variable with no value

```
let my_name;  
console.log(my_name); // undefined  
my_name = "John";  
console.log(my_name); // John  
my_name = "Jane";  
console.log(my_name); // Jane
```

```
undefined  
John  
Jane
```



# WHEN USING CONST

When using a const variable, the variable is a constant and cannot be changed in your program.

You must declare a const variable with a value

Here is a correct usage of const

```
const my_name = "John";
```

Incorrect usage of const

```
const my_name;
```

'const' declarations must be initialized.

```
const my_name = "John";  
my_name = "Jane";  
console.log(my_name);
```

```
my_name = "Jane";  
      ^
```

TypeError: Assignment to constant variable.

# TYPE CHECKING VARIABLES

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# HOW TO CHECK TYPE OF VARIABLE

You can use the `typeof` operator to check the type of a variable in javascript

How to use the `typeof` operator:

```
let firstName = "John";  
let age = 30;  
console.log(typeof firstName);  
console.log(typeof age);
```

```
string  
number
```

# PRACTICE QUESTIONS

Copy the following code into your javascript file and complete the assignments

```
// # 1. Adjust the age and name variables to your own age and name, and then fill in the
console.log statements to complete the code.
let age = 0;
let name_one = "";
// # Print out the variables below
console.log("My age is: ", ____);
console.log("My name is: ", ____);
// # 2. Reassign the value of x to 20 and then print out the value of x
let x = 0;
// # Reassign the value of x to 20 below
// # Print out the value of x below
console.log("The value of x is: ", ____);
// # 3. Below is a constant variable of PI assigned to 3.14. Try to reassign the value of
PI below, are you able to?
const PI = 3.14;
// # Try to reassign the value of PI below, are you able to?
// # Replace this comment with your code
// # Create a constant variable called my_name and assign it to your name. Then print both
PI and my_name to the console.
// # Replace this comment with your code
console.log("The value of PI is: ", ____);
console.log("My name is: ", ____);
// # 4. Below are some different data types of variables. Try to print out the data types
of each variable below. Hint: use the typeof operator.
let myNum = 15;
let myString = "Hello, World!";
// # Print out the data types of each variable below
console.log(typeof ____);
console.log(typeof ____);
```

# LESSON REVIEW

- Know how to use the console to print messages to the screen
- Understand what a variable is
- Know how to declare a variable in your program
- Understand the difference between let and const
- Know how to check the type of a variable

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