P.PORTO

ESMAD | TSIW | POO
Exercise Sheet nº1
Variables, Data Types and Operators

Use Visual Studio Code to solve the following exercises:

1. Create an instruction that displays the message "Hello JavaScript!".

2. Variables

a. Working with variables
   i. Declare two variables: admin and name.
   ii. Assign the value "John" to the variable name.
   iii. Copy the value from name to admin.
   iv. Show the value of admin using an alert box ("John" should be displayed).

b. Variable naming:
   i. Create a variable with the name of our planet. How would you call this variable?
   ii. Create a variable to store the name of a current visitor to a website. How would you name this variable?

3. Constants:

a. Examine the following code which includes a constant birthday and age is calculated from the birthday with the help of some code (not provided for the sake of focus):

```
const birthday = '18 .04.1982 ';
const age = someCode (birthday);
```

b. Would it be correct to use capital letters for the birthday variable? And to age? Or even for both?

```
const BIRTHDAY = '18 .04.1982 ';        // capitalized?
const AGE = someCode (BIRTHDAY);        // capitalized?
```

4. Data types:

a. What is the output of the following script:

```
let name = "Ilya";
console.log( `hello ${1}` ); // ?
console.log( `hello ${"name"}` ); // ?
console.log( `hello ${name}` ); // ?
```

5. Type conversion:

a. What are the results of these expressions:

```
"" + 1 + 0
"" - 1 + 0
true + false
6 / "3"
"2" * "3"
4 + 5 + "px"
"$" + 4 + 5
```

"4" - 2
"4px" - 2
7 / 0
" -9 " + 5
" -9 " - 5
null + 1
undefined + 1

6. Operators:

a. What are the final values of all variables a, b, c and c after the code below?

```
let a = 1, b = 1;

let c = ++a; // ?
let d = b++; // ?
```

b. What are the values of **a** and **x** after the code below?

```
let a = 2;
let x = 1 + (a *= 2);
```

7. Interaction:

a. Create an instruction that prompts for a name and prints the name by adding asterisks before and after the name.

8. Comparing:

a. What will be the result of these expressions?

5 > 4
"apple" > "pineapple"
"2" > "12"
undefined == null
undefined === null
null == "\n0\n"
null === +"\n0\n"

TIP: To practice more, go to the learnJS playground and solve the Exercise Sheets on these topics!