ESMAD | TSIW | POO
Exercise Sheet nº5
Objects

Open Visual Studio Code and solve the following exercises in independent files with the names **exN.html** and **exN.js**, where **N** is the number of the exercise:

1. Write the code, one line for each action:
   a. Create an empty **user** object
   b. Add the **name** property with the value **John**
   c. Add the **surname** property with the value **Smith**
   d. Change the value of the **name** property to **Pete**
   e. Remove the object's **name** property

2. Consider the next object literal:

```
const student = {
  name: "John Doe",
  course: "POO",
  grade: 12
}
```

   a. Create a function to list the names of the object properties
   b. Create a function that removes an object's property given as a parameter. Print the object before and after removing the property
   c. Create a function that calculates the size of the object (number of the properties of an object)

3. Create an object literal to store information about
   a. Person's personal data such as: name, address, birthday and local of birth, contacts (phone and email) and profession;
   b. Information about a soccer game. The object must allow a function (not to implement) be capable of showing the final score of the game, the name of the teams, the authors of the goals, the stadium name and the date and time of the game.

4. Write the **isEmpty(obj)** function that returns true if the object has no properties, false otherwise. It should work like this:

```
let schedule = {};

alert( isEmpty(schedule) ); // true

schedule["8:30"] = "get up";

alert( isEmpty(schedule) ); // false
```

5. We have an object that stores the wages of a team:

```
const salaries = {
  John: 100,
  Ann: 160,
  Pete: 130
}
```

Write the code, to sum up, all wages and store it in the **sum** variable. It should be 390 in the example above. If the **salaries** object is empty, the result must be 0.

6. Create a **multiplyNumeric(obj)** function that multiplies all numeric properties of **obj** by 2 and present the new object in the console. For example:

```
// before function call
let menu = {
  width: 200,
  height: 300,
  title: "My menu"
};
multiplyNumeric(menu);
// after function call
menu = {
  width: 400,
  height: 600,
  title: "My menu"
};
```