

JavaScript Lesson 4




JavaScript™

Objects

Almost everything in JavaScript can be an Object: Strings, Functions, Arrays, Dates....
Objects are just data, with properties and methods.

A Real Life Object. A Car:

Object	Properties	Methods
	<code>car.name = Fiat</code> <code>car.model = 500</code> <code>car.weight = 850kg</code> <code>car.color = white</code>	<code>car.start()</code> <code>car.drive()</code> <code>car.brake()</code>

The **properties** of the car include name, model, weight, color, etc.
The **methods** of the car could be `start()`, `drive()`, `brake()`, etc.

Objects in JavaScript:

```
var txt = new String("Hello World");
```

Object	Property	Method
"Hello World"	txt.length	txt.indexOf("World")

This example creates an object called "person", and adds four properties to it:

```
person=new Object();  
  person.firstname="John";  
  person.lastname="Doe";  
  person.age=50;  
  person.eyecolor="blue";
```

```
var myFather=new person("Jack", "Brown",45, "yellow ");  
var myMother=new person("Sally","Rally",48,"green");
```

For ... in Loop

The JavaScript for...in statement loops through the properties of an object.

```
for (variable in object)
{
  code to be executed
}
```

```
var txt="";
var person={fname:"John",lname:"Doe",age:25};
for (var x in person)
{
  txt=txt + person[x];
}
alert(txt)
```

Strings(quotes, index)

A string can be any text inside quotes. You can use single or double quotes:

```
var carname="mercedes";  
var carname= 'mercedes';
```

You can access each character in a string with its position (index):

```
var character=carname[5]; //d
```

You can use quotes inside a string, as long as they don't match the quotes surrounding the string:

```
var answer="He is called 'Johnny'";  
var answer='He is called "Johnny"';
```

Strings(length, indexOf)

The length of a string (a string object) is found in the built in property **length**:

```
var txt="Hello World!";  
document.write(txt.length);
```

The **indexOf()** method returns the position (as a number) of the first found occurrence of a specified text inside a string:

```
var str="Hello world, welcome to the Armenia."  
var n=str.indexOf("welcome");  
alert(n);
```

Strings(replace, upper/lower)

The **replace()** method replaces a specified value with another value in a string.

```
var message="Please visit Microsoft!";  
var n= message.replace("Microsoft","W3Schools");  
// n="Please visit W3Schools!";
```

A string is converted to upper/lower case with the methods **toUpperCase()** / **toLowerCase()**:

```
var norm="Hello World!";  
var up_norm= norm.toUpperCase(); //HELLO WORLD!  
var low_norm= norm.toLowerCase(); //hello world!
```

Strings(split,substr)

A string is converted to an array with the built in method `string.split()`:

```
var alph="a,b,c,d,e,f";  
var n= alph.split(","); // ("a", "b", "c", "d", "f")
```

The `substr()` method extracts parts of a string, beginning at the character at the specified position, and returns the specified number of characters.

```
var x= "Hello world!";  
var res = x.substr(1,4) ; // ello  
var y= str.substr(2); // llo world!
```


Task 1:

“ProTag it center” տողը գրված է տառերի անհայտ հերթականությամբ: Անհրաժեշտ է բոլոր տառերը փոխարինել համապատասխան հայերեն տառով: