THE MINISTRY OF EDUCATION AND YOUTH OF THE REPUBLIC OF MOLDOVA

TECHNICAL UNIVERSITY OF MOLDOVA CIM FACULTY

**REPORT**

on Web Technologies

Laboratory Work No.2

*Author:*

Boldescu Anatolie

*Supervisor:*

Vladimir Poddukin

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**Theme: Problems in JavaScript**

**Task:**

Solve the given problems in JavaScript .Explain the answers obtained.

***Problem 1***

"Hello JavaScript" Create an HTML page that displays an alert pop-up with the text "The page is loading ...." when the page loads. After clicking the OK button in the pop-up, another pop-up pops up with the text "The page has been loaded successfully". Provide two solutions to the problem. First, the scripts are embedded in the HTML page. Second - external scripts.

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| *Solution 1*  *<!DOCTYPE HTML>*  *<script type='text/javascript'>*  *alert("Page is loading!");*  *</script>*  *<html><head></head>*  *<body>*  *<script>*  *window.onload = function() {*  *alert('Page is loaded')*  *};*    *</script>*  *<p>Line 1</p>*  *<p>Line two</p>*  *</body>*  *</html>* |
| *Solution 2*  ***HTML***  *<!DOCTYPE HTML>*  *<script type='text/javascript' src=”Loading.js”></script>*  *<html><head></head>*  *<body>*  *<script defer src=”Loaded.js”>*  *</script>*  *<p>Line 1</p>*  *<p>Line two</p>*  *</body>*  *</html>*  ***Loading.js***  *alert("Page is loading!");*  ***Loaded.js***  *window.onload = function() {*  *alert('Page is loaded')*  *};* |

***Problem 2***

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| ***The order of execution of scripts***  *In the example below, two small.js and big.js scripts are connected.*  *Assuming that small.js is loaded much faster than big.js - which one will be executed first?*  *Case 1*  *<script src="big.js"></script>*  *<script src="small.js"></script>*  *Case 2*  *<script async src="big.js"></script>*  *<script async src="small.js"></script>*  *Case 3*  *<script defer src="big.js"></script>*  *<script defer src="small.js"></script>*  *Scripts are situtiated inside body tag.* |
| *In case 1 and 3 script big.js will be executed first in case 2 script small js will executed first.* |

***Problem 3***

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| *Classify the following variables in three categories:*  *-good*  *-unrecommended*  *-unacceptable*  *var adminName;*  *var imia\_Admina;*  *var numele\_Adminului;*  *var admin\_Name;*  *var AdminName;*  *var ADMINNAME;*  *var имяАдмина;*  *var \_;*  *var 1stAdmin;*  *var primaryAdmin;*  *var $;*  *var i;*  *var j;*  *var getCount;*  *var count;*  *var getCount();*  *var int;*  *var admin-Name;* |
| *Good*  *var adminName;*  *var imia\_Admina;*  *var numele\_Adminului;*  *var admin\_Name;*  *var AdminName;*  *var count;*  *Unrecomanded*  *var ADMINNAME;*  *var имяАдмина;*  *var $;*  *var i;*  *var j;*  *var \_;*  *var getCount;*  *var int;*  *Unacceptable*  *var admin-Name;*  *var getCount();*  *var 1stAdmin;* |

***Problem 4***

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| *What will be the result of x in the following code (explain)*  *var a = 2;*  *var x = 3 + (a \*= 3);* |
| *X=3+(2\*3)=9*  *because*  *a\*=3->a=a\*3* |

***Problem 5***

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| *Write a function which will compute the minimum from two number min (a,b)*  *Present three ways of function declaration*  *-new function*  *-function expression*  *-function declaration* |
| *function expression*  *var minFunction=function min(a, b) {*  *return a < b ? a : b;*  *}*  *function declaration*  *function min(a, b) {*  *return a < b ? a : b;*  *}*  *New function*  *var minFunction= new Function (“a”,”b”, “return a < b ? a : b”);* |

***Problem 6***

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| *Please review the code below for formatting and recommended code conventions for JavaScript.*  function pow(x,n) { var result=1; for(var i=0;i<n;i++) {result\*=x;} return result; }  x=prompt("x?",'') n=prompt("n?",'') if (n<0) { alert('Puterea'+n+'nu este procesată în cadrul exemplului dat, introduceți o putere >0'); } else { alert(pow(x,n)) } |
| *In order to follow th Java script convention the code must be written similar to this*  function pow(x,n) {  var result=1;  for(var i=0;i<n;i++) {  result\*=x;  }  return result;  }  x=prompt("x?",''); n=prompt("n?",''); if (n<0) {  alert('Puterea'+n+'nu este procesată în cadrul exemplului dat, introduceți o putere >0'); } else {  alert(pow(x,n)) } |

***Problem 7***

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| *Compute the following statements(explain results)*  "" + 1 + 0 //10 string "" - 1 + 0 //-1 number true + false//1 number 6 / "3"//2 number "2" \* "3"//6 number 4 + 5 + "px"//9px string "$" + 4 + 5//$45 string  "4" – 2// 2 number  "4px" – 2//NaN  7 / 0//Infinity number  " -9\n" + 5//-9  5 string " -9\n" – 5//-14 number 5 && 2//2 number  2 && 5//5 number  5 || 0//5 number  0 || 5//5 number null + 1//1 number undefined + 1//NaN null == "\n0\n"//false +null == +"\n0\n"// false |
| *In every case the compiler tries to perform implicit conversion and compute the results* |

# Conclusion:

In this laboratory work I understood how to solve different simple math problems in Javascript and to predict the results of the solved problems I learned how to define a varivle and a function correctily how to write readable and indestandble code in JS.