**Lab Tasks**

**Batch-2**

**1-What is this code going to show?**

|  |
| --- |
| var fruits = ["Apples", "Pear", "Orange"];  // push a new value into the "copy"  var shoppingCart = fruits;  shoppingCart.push("Banana");  // what's in fruits?  alert( fruits.length ); // ? |

**Answer 01: 4**

|  |
| --- |
| let matrix = [  [1, 2, 3],  [4, 5, 6],  [7, 8, 9]  ];  alert( matrix[1][1] ); // ? |

**Answer 02: 5**

**Splice**

arr.splice(index[, deleteCount, elem1, ..., elemN])

|  |
| --- |
| let arr = ["I", "study", "JavaScript", "right", "now"];  // remove 3 first elements and replace them with another  arr.splice(0, 3, "Let's", "dance");  alert( arr ) // ? |

**Answer 03: Let’s, dance, right, now**

|  |
| --- |
| let arr = ["I", "study", "JavaScript", "right", "now"];  // remove 2 first elements  let removed = arr.splice(0, 2);  alert( removed ); // ? |

**Answer 04: I, study**

|  |
| --- |
| let arr = ["I", "study", "JavaScript"];  // from index 2  // delete 0  // then insert "complex" and "language"  arr.splice(2, 0, "complex", "language");  alert( arr ); // |

**Answer 05: I, study, complex, language, JavaScript**

**slice**

The method arr.slice is much simpler than similar-looking arr.splice.

The syntax is: arr.slice(start, end)

|  |
| --- |
| let str = "test";  let arr = ["t", "e", "s", "t"];  alert( str.slice(1, 3) ); // ?  alert( arr.slice(1, 3) ); // ?  alert( str.slice(-2) ); // ?  alert( arr.slice(-2) ); // ? |

**Answer 06:**

* **es**
* **e,s**
* **st**
* **s,t**

**2-Array operations**

Try 5 array operations.

1. Create an array styles with items “Jazz” and “Blues”.
2. Append “Rock-n-Roll” to the end.
3. Replace the value in the middle by “Classics”. Your code for finding the middle value should work for any arrays with odd length.
4. Strip off the first value of the array and show it.
5. Prepend Rap and Reggae to the array.

The array in the process:

|  |
| --- |
| Jazz, Blues  Jazz, Bues, Rock-n-Roll  Jazz, Classics, Rock-n-Roll  Classics, Rock-n-Roll  Rap, Reggae, Classics, Rock-n-Roll |

**Answer 07:**

<script>

//1.    Create an array styles with items “Jazz” and “Blues”.

var arr = ["Jazz", "Blues"];

alert(arr);

//2.    Append “Rock-n-Roll” to the end.

arr.push("Rock-n-Roll");

alert(arr);

//3.    Replace the value in the middle by “Classics”. Your code for finding the middle value should work for any arrays with odd length.

let ln = arr.length / 2;

arr.splice(ln, 1, "Classics");

alert(arr);

//4.    Strip off the first value of the array and show it.

var stripped = arr.slice(1);

alert(stripped);

//5.    Prepend Rap and Reggae to the array.

stripped.splice(0, 0, "Rap", "Reggae");

alert(stripped);

</script>

**3- Calling in an array context**

What is the result? Why?

|  |
| --- |
| let arr = ["a", "b"];  arr.push(function() {  alert( this );  })  arr[2](); // ? |

**Answer 08:m,lmlml**

a,b,function() {

alert( this );

}

Needs further explanation to understand the result.

**4-Sum input numbers**

Write the function sumInput() that:

Asks the user for values using prompt and stores the values in the array.

Finishes asking when the user enters a non-numeric value, an empty string, or presses “Cancel”.

Calculates and returns the sum of array items.

P.S. A zero 0 is a valid number, please don’t stop the input on zero.

**Answer 09:**

<script>

function sumInput() {

var arrSum = [];

var isNum = true;

var total = 0;

while (isNum) {

var numN = prompt("Number to add: ");

isNum = !isNaN(numN);

if (numN == null) {

isNum = false;

}

if (isNum) {

arrSum.push(parseInt(numN));

}

}

alert(arrSum); //Value in Array

for (i in arrSum) {

total += arrSum[i];

}

alert(total); //Sum of Array

}

sumInput();

</script>

**5- Show the sign**

Using if..else, write the code which gets a number via prompt and then shows in alert:

1, if the value is greater than zero,

-1, if less than zero,

0, if equals zero.

In this task we assume that the input is always a number.

**Answer 10:**

<script>

function showSign() {

var isNum = true;

while (isNum) {

var numN = prompt("Enter your number: ");

isNum = !isNaN(numN);

if (numN == null || !isNum) {

isNum = false;

alert("Good Bye!");

}

if (isNum) {

numN = parseInt(numN);

if (numN > 0) {

alert("Your entered value is Greater than Zero");

} else if (numN < 0) {

alert("Your entered value is Less than Zero");

} else {

alert("Your entered value is Zero");

}

}

}

}

showSign();

</script>

**6- Check the login**

Write the code which asks for a login with prompt.

If the visitor enters "Admin", then prompt for a password, if the input is an empty line or Esc – show “Canceled.”, if it’s another string – then show “I don’t know you”.

The password is checked as follows:

If it equals “TheMaster”, then show “Welcome!”,

Another string – show “Wrong password”,

For an empty string or cancelled input, show “Canceled.”

The schema:

Please use nested if blocks. Mind the overall readability of the code.

Hint: passing an empty input to a prompt returns an empty string ''. Pressing ESC during a prompt returns null.

**Answer 11:**

<script>

function checkLogin() {

var lid = prompt("Enter your ID: ");

if (lid == 'Admin') {

var lpwd = prompt("Enter your Password: ");

if (lpwd == 'TheMaster') {

alert("Welcome!");

} else if (lpwd == null || lpwd == "") {

alert("Canceled!");

} else {

alert("Wrong password");

}

} else if (lid == null || lid == "") {

alert("Canceled!");

} else {

alert("I don't know you!");

}

}

checkLogin();

</script>

**6-Comparisons**

What will be the result for these expressions?

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

**Answer 12:**

5 > 4 => (TRUE)

"apple" > "pineapple" => (FALSE)

"2" > "12" => (TRUE)

undefined == null => (TRUE)

undefined === null => (FALSE)

null == "\n0\n" (FALSE)

null === +"\n0\n" (FALSE)