

## Java Script – L1: Trend NXT Hands-on Assignments

**Estimated Efforts:** 2 PDs

**For detailed ToC and other Details:** [https://wipro365.sharepoint.com/sites/ku-practice-4101/KMSitesContent/gdo1/JavaSkills/Skills\\_TOC/JavaScript\\_L1\\_LG.aspx](https://wipro365.sharepoint.com/sites/ku-practice-4101/KMSitesContent/gdo1/JavaSkills/Skills_TOC/JavaScript_L1_LG.aspx)

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**ToC :**

Topic No	Topic Name	Sub Topic	Min no.of Assignments to be Done
1	<b>JavaScript - Introduction</b>	JavaScript Introduction	1
2	<b>JavaScript WhereTo</b>	<script> tag, JavaScript function in <head>, <body>, External JavaScripts	1
3	<b>JavaScript Output</b>	Manipulating HTML Elements, Writing to Document Output	1
4	<b>JavaScript Statements &amp; Comments</b>	JavaScript Statements	1
5	<b>JavaScript Variables &amp; Data Types</b>	JavaScript Variables & Data Types	1
6	<b>JavaScript Operators</b>	Arithmetic , Assignment , Comparisons and Logical Operators	2
7	<b>JavaScript Functions</b>	JavaScript Functions	2
8	<b>JavaScript Objects</b>	JavaScript Objects	2
9	<b>JavaScript Scope</b>	JavaScript Scope	1
10	<b>JavaScript Events</b>	JavaScript Events	1
11	<b>JavaScript Conditions</b>	JavaScript If...Else & Switch Statements	2
12	<b>JavaScript Loops</b>	JavaScript For Loop & While Loop	2
13	<b>JavaScript jumping statements</b>	JavaScript Break and Continue	1
14	<b>JavaScript Errors</b>	JavaScript Errors	1
<b>Total Min No of Assignments to be Done</b>			<b>19</b>

## **Topic 1: JavaScript - Introduction**

### **Assignment 1:**

Write JavaScript code to display current date & time.

### **Assignment 2:**

Write a JavaScript program to display “Welcome to JavaScript” on console

## **Topic 2: JavaScript WhereTo**

### **Assignment 1:**

Create an external JS file called 'alert.js' which contains alert function with “Hello User  
“message. Include alert.js in your html head & body sections and observe the output.

### **Assignment 2:**

Create an external JS file called 'combinations.js' which contains a JavaScript function that generates all combinations of a string. Include 'combinations.js' in body sections and display the output.

*Example string : 'dog'*

*Expected Output : d,do,dog,o,og,g*

## **Topic 3: JavaScript Output**

### **Assignment 1:**

Write a JavaScript program where the program takes a random integer between 1 to 10, the user is then prompted to input a guess number. If the user input matches with guess number, the program will display a message "Good Work" otherwise display a message "Not matched".

### **Assignment 2:**

Write a JavaScript program to capitalize the first letter of each word of a given string and display it on java script console along with browser

## **Topic 4: JavaScript Statements & Comments**

### **Assignment 1:**

Write a JavaScript program to sort an array of all prime numbers between 1 and a given integer. Add single & multi line comments wherever applicable.

**Assignment 2:**

Write a JavaScript exercise to create a variable using a user-defined name

**Topic 5: JavaScript Variables & Data Types****Assignment 1:**

Write a Java Script program that should have two variables initialized with nos. You should add and display the sum only if they are numbers. If they are of any other type you should show a message "Sorry.... Only Nos will be added"

**Assignment 2:**

Write a JavaScript program to find the area of a triangle where lengths of the three of its sides are 5, 6, 7.

**Topic 6: JavaScript Operators****Assignment 1:**

Write a program that outputs all possibilities to put + or - or nothing between the numbers 1, 2, ...,9 (in this order) such that the result is always 100.

For example:  $1 + 2 + 34 - 5 + 67 - 8 + 9 = 100$

**Assignment 2:**

Create a calculator application in javaScript where all arithmetic operations would work (Simple arithmetic calculator)

Sample:

1	2	3
4	5	6
7	8	9
0	+	-
*	/	=

**Topic 7: JavaScript Functions****Assignment 1:**

Write a JavaScript function that computes the list of the first 100 Fibonacci numbers. By definition, the first two numbers in the Fibonacci sequence are 0 and 1, and each subsequent number is the sum of the previous two. As an example, here are the first 10 Fibonnaci numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, and 34

### **Assignment 2:**

Write a JavaScript function that combines two lists by alternately taking elements. For example: given the two lists [a, b, c] and [1, 2, 3], the function should return [a, 1, b, 2, c, 3].

### **Assignment 3:**

Write a JavaScript function to get the last 'n' elements of the array. If array has 6 elements and if user gives 4, it has to return last 4 elements. If user gives 'n' which is greater than the number of elements in the array, then it should return all elements.

### **Assignment 4:**

Write a JavaScript function to parse an URL and print the details like protocol, port, host, query parameters and route parameters if any.

## **Topic 8: JavaScript Objects**

### **Assignment 1:**

Create a JavaScript object stores a 'CD' details.

- a. CD name
- b. CD publisher
- c. CD price

A function 'displayAllDetails()' --> should show the CD Name, CD publisher and Final Price (Final Price is calculated as final price+10% tax charges and 3% discount)

### **Assignment 2:**

Write a JavaScript program to sort an array of JavaScript objects. Let the object contain many keys. Based on a specific key, the objects are to be sorted.

### **Assignment 3:**

Prompt the user to enter two numbers. Add the numbers and alert the sum.

#### **Assignment 4:**

Prompt the user to enter his favorite background and foreground color. Receive the values and apply the same as the page's background and foreground. Keep prompting the user for these details until the user says no.

#### **Topic 9: JavaScript Scope:**

##### **Assignment 1:**

Write a JavaScript function to get the number of occurrences of a given letter in specified string. Take input string as global variable and letter as local variable in a function

##### **Assignment 2:**

Write a function for searching JavaScript arrays with a binary search. Define array as global variable and search element as local variable in a function

#### **Topic 10: JavaScript Events**

##### **Assignment 1:**

Create a button called "Donate for a cause". Onclick of it, call a method that will prompt you to enter your donation amount and alerts it.  
(If the donation is in decimals, it should be rounded off to the nearest integer).

##### **Assignment 2:**

Create a basic page in html that displays 3 images. Create a separate rollover for each of these images, i.e. onMouseOver display a new, image, onMouseOut return it to the original image.

##### **Assignment 3:**

Build a simple slide show in JavaScript. Create a basic page in html that displays a single image. Add two buttons Previous and Next. These buttons should allow the user to move forward or backward. Have 6 images in total. When the user reaches the end (or beginning when clicking on the back button) of the slide show, the slide show should not wrap around to the beginning (or end). When at the beginning of the slide show, only the Next button should be visible. Conversely, when at the end, only the Previous button should be visible.

## **Topic 11 : JavaScript Conditions**

### **Assignment 1:**

Write a JavaScript conditional statement to find the sign of product of three numbers. Display an alert box with the specified sign.

*Sample numbers:* 10, -7, 0

*Output :* The sign is -

### **Assignment 2:**

Write a JavaScript conditional statement to find the largest of five numbers and display the result on the screen.

*Sample numbers:* -5, -2, -6, -8, -1

*Output :* -1

## **Topic 12: JavaScript Loops**

### **Assignment 1:**

Write a JavaScript program to count and display the items of a dropdown list, in an alert window.

### **Assignment 2:**

Write a JavaScript program to sort a list of elements using atleast 2 different sorting techniques.

### **Assignment 3:**

Write a JavaScript program to store 10 employee names in an array. Print only the alternative names one below the other.

### **Assignment 4:**

Write a JavaScript program to store 10 assessment marks in an array. Find the average marks and display

## **Topic 13: JavaScript jumping statements**

### **Assignment 1:**

Write a JavaScript program to construct the following pattern, using a nested for loop.

### **Assignment 2:**

Write a JavaScript program to sum the multiples of 3 and 5 under 1000.

## **Topic 14: JavaScript Errors**

### **Assignment 1:**

Write a JavaScript program to divide two numbers. If denominator is zero display error message by using try-catch blocks.

### **Assignment 2:**

Write a JavaScript function to validate whether a given value type is error or not.