Questions(Exercise 4)

1. **Explain what is an array and how do you define and use it in JavaScript**

The JavaScript Array object is a global object that is used in the construction of arrays; which are high-level, list-like objects.

1. **Write a code snippet that**

a. creates an empty array

* new Array();

b. adds elements to the end

* push()

c. removes elements from the end

* pop()

d. removes elements from the beginning

* shift()

e. adds elements to the beginning

* unshift()

1. **The previous question introduced a few Array methods. List and explain ten more Array methods**

**you find useful.**

* splice()
* You can remove elements without leaving “holes” in the array.

example: var fruits = ["Banana", "Orange", "Apple", "Mango"];

fruits.splice(0, 1); // Removes the first element of fruits

* concat()
* The concat() method does not change the existing arrays. It always returns a new array.

example: var arr1 = ["Cecilie", "Lone"];  
 var arr2 = ["Emil", "Tobias", "Linus"];  
 var arr3 = ["Robin", "Morgan"];  
 var myChildren = arr1.concat(arr2, arr3);      // Concatenates arr1 with arr2 and arr3

* slice()
* The slice() method slices out a piece of an array into a new array.

Example

var fruits = ["Banana", "Orange", "Lemon", "Apple", "Mango"];

var citrus = fruits.slice(1);

* sort()
* The sort() method sorts an array alphabetically:

Example

var fruits = ["Banana", "Orange", "Apple", "Mango"];

fruits.sort(); // Sorts the elements of fruits

* reverse()
* The reverse() method reverses the elements in an array.

Example

var fruits = ["Banana", "Orange", "Apple", "Mango"];

fruits.sort(); // First sort the elements of fruits

fruits.reverse(); // Then reverse the order of the elements

* Math.max()
* You can use Math.max.apply to find the highest number in an array:

Example

function myArrayMax(arr) {

return Math.max.apply(null, arr);

}

* Math.min()
* You can use Math.min() apply to find the minimum number in an array:

function myArrayMin(arr) {

return Math.min.apply(null, arr);

}

* toString()
* The JavaScript method toString() converts an array to a string of (comma separated) array values.

Example:

var fruits = ["Banana", "Orange", "Apple", "Mango"];

document.getElementById("demo").innerHTML = fruits.toString();

Result:

Banana,Orange,Apple,Mango

* join()
* The join() method also joins all array elements into a string.

It behaves just like toString(), but in addition you can specify the separator:

Example

var fruits = ["Banana", "Orange", "Apple", "Mango"];

document.getElementById("demo").innerHTML = fruits.join(" \* ");

Result:

Banana \* Orange \* Apple \* Mango

* Array.forEach()
* The forEach() method calls a function (a callback function) once for each array element.

Example

var txt = "";

var numbers = [45, 4, 9, 16, 25];

numbers.forEach(myFunction);

function myFunction(value, index, array) {

txt = txt + value + "<br>";

}