Ophelia Mendivil

CIS233DA

**Arrays and Their Methods**

**What is an array? When are they used in web pages? Are there different types of arrays? If so, what are they and how do they differ? Give examples of when you might want to use arrays.**

An array is ways of organizing multiple values of the same kind in one variable. This data can be accessed using an index or a key. Usually used for web pages to store and control groups of data, manage lists of items, and putting data on tables.

There are various kinds, these are some types:

Numeric Arrays: Numbers Ex. Numbers = [1,2,3,4,5,6]

Associative Arrays: Keys and Strings Ex. Person = {name: “John”, age: 30, city: “Mexico”}

Multidimensional Arrays: Contain other arrays as their elements usually represent tables Ex.

matrix = [[1, 2, 3], [4, 5, 6], [7, 8, 9]]

Arrays may be useful for when you need to:

* Store and control data inputted by users
* Managing a list of items in a shopping cart or to-do list
* Representing things like a board for games or grids
* Organizing and processing tabular data from data bases

**What is a method (not necessarily a JavaScript method, but just the programming idea of a method altogether).**

A method is a block of code/function that is associated with an object or class. Set of instructions that execute a task or behavior. Used to organize/manipulate code and make it reusable.

**Make a list of all the JavaScript methods you can find with a very brief explanation about what it does to the array.**

Push: Adds 1 or more elements to the end of an array

Pop: Removes and returns the last element of an array

Shift: Removes and returns the first element of an array.

Unshift: Adds one or more elements to the beginning of an array.

Concat: Returns a new array by merging two or more arrays together.

Slice: Returns a new array with a shallow copy of a portion of the original array

Splice: Changes the contents of an array by removing, replacing, or adding elements at a specific position.

forEach: Executes a provided function once for each array element.