Data Structure:

Organize data in a computer to use in an efficient manner.

Can be divided into the two words🡪

1. Data 2.) Structure

Methods used in Arrays:

1. .push() : To add new element to an array.
2. .pop() : To delete last element from an array.
3. .unshift() : Adds the element at the first index of the array.
4. .at([i]) : Value on that index of the array. Useful as it lets us use negative indexing to take the last element of the array which is not possible and will through an error with direct indexing method which is used generally to filter through the indexing of an array( array[+ve integer]).

Eg: array.at[-1]

For more on methods, go to🡪 <https://developer.mozilla.org/en-US/> This is an important website for you as of now.

Difference between for and forEach:

* In forEach use of an undeclared function is used which is not required in for loop.
* The pattern changes in forEach loop as:

[x,c,v,b,n].forEach(function(e){

console.log(e); //We can use operations which the parameter(e) allows.

});

* There are three parameters of forEach loop:
  + Variable
  + Index
  + Array
* How to declare functions of forEach loop🡪

.forEach((variable,index,array)=>{

//code ;(return argument)

});

Array map() method:

* Syntax:

Array.map(function(currentValue, index, arr), thisValue)

The Parameters can be defined as follows🡪

* Required(mandatory) fields:
* function() : A function to be run for each array element.
* currentValue: The value of the current element.
* Optional fields:
* index: The index of the current element.
* arr: The array of the current element.
* thisValue: Default value🡪 undefined. A value passed to be used as its this value.

Return value🡪

The result of a function for each array element.

Difference between forEach and map:

* The main difference between map and forEach is that the map method returns a new array by applying the callback function on each element of an array, while the forEach method doesn’t return anything.
* For a more comprehensive evaluation visit this site:
  + <https://www.freecodecamp.org/news/4-main-differences-between-foreach-and-map/>

Three important functions of Objects:

* freeze: syntax- Object.freeze(NameOfObject);

Use of this will restrict the amenability of the object and prevents any changes to the object in the future both in context to introducing new key and value pair to the object as well as reassigning new values to the existing keys.

* seal: Same as freeze but only difference is that seal allows us to change the values of existing keys as opposed to the freeze function, introducing new key value pairs is still restricted.
* isSealed: Returns a Boolean value when asked to be printed, true if object is either sealed or frozen.

SYNTAX-

Object.freeze(ObjectName);

Object.seal(ObjectName);

Object.isSealed(ObjectName);