

## CLIENT SIDE SCRIPTING

### THEORIES TO WRITE IN PRACTICAL BOOK

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#### Practical No. 03: Develop JavaScript to implements Array functionalities

##### ARRAYS:

An Array is a special type of variable that can hold more than one value. Traditionally, array can hold values of only same datatype; but in JS, array can hold values of dissimilar types which is not recommended to use. In JavaScript, array is an Object.

Two ways to define array:

1) Using Literals (mostly used way):

```
var marks = [60,70,73,89];
```

2) Using Constructor:

```
var marks = new Array(10);
```

##### TYPES OF ARRAYS (based on dimension):

1) Single dimensional Array:

Array having data stored in a linear pattern.

```
var cssScore = [73,87,45];
```

2) Multi-dimensional Array:

Array having data stored in a Matrix-like pattern (containing rows & columns). Also called Array of Arrays.

2d array are used widely after single dimensional array.

```
var cssScore = [  
    [73,87,45],  
    [88,89,61],  
    [90,90,70]  
];
```

##### TYPES OF ARRAYS (based on elements):

1) Dense Array: Arrays having all meaningful or non-empty values, without any holes.

```
var denseArray = [12,45,43,78];
```

2) Sparse Array: Arrays containing empty elements (holes).

```
var sparseArray = [12,,45,,,67,,90,100,,10];
```

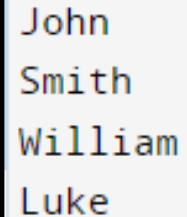
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Accept & Display Array:

We can use for-of loop to iterate through array.

```
let names=['John','Smith','William','Luke'];
for(let name of names)
{
    console.log(name);
}
```



John  
Smith  
William  
Luke

Using length property:

```
for(let i=0;i<names.length;i++){
    console.log(names);
}
```

ARRAY RELATED FUNCTIONS/METHODS:

METHODS	USES	CHANGE in ARRAY?
push(element);	Used to insert element/s at the end of the array	YES
pop();	Used to delete an element from the end of the array	YES
unshift(element);	Used to insert element/s at the beginning of the array	YES
shift();	Used to delete an element from the beginning of the array	YES
slice(startIndx, [endIndx]);	Used to <b>return</b> out a part of an array from specified start index to end index. If end index is not specified, then it will slice till the end of the array	NO
splice(startIndx, delCount, [elements to insert...]);	All in one method. Used to insert or delete element/s from the array.	YES
toString();	<b>Returns</b> a string converted from an array	NO
concat(elements);	<b>Returns</b> a new array by concatenating two arrays or joining an array with elements	NO