Arrays

22 July 2025 18:04

Arrays are a collection of items
Arrays is a linear way to store the information
Array can consist of different datatypes...though as a good coding practice it is not prefered.
The array in javascript is mutable....i.e. , it can be updated.
But the strings in javascript are immutable.
Ex:

```
let marks=[92,97,89,94,85];
          (0)(1)(2)(3)(4)
marks[2]=75;
console.log(marks)
Output: [92,97,75,94,85]
```

Looping Over an Array:
(to print all the elements of an array)

Example :

```
1.  let names=["Mansi","Sayasi", "Tulsi" , "Renuka"];
for(let name of names){
   console.log(name);
}
Output :
Mansi
Sayasi
Tulsi
Renuka

2.letnames=["Mansi","Sayasi","Tulsi","Renuka"];
   for(let name of names){
   console.log(name.toUpperCase());
}
Output:
MANSI
SAYASI
TULSI
RENUKA
```

```
3.  let marks=[85,94,89,97,95,87];

    let average=sum/(marks. length);
   console.log(`the average marks of the class=${average}`);
Output :
the average marks of the class=91.16666666666667
```

```
let namee="Mansi";
 let result="";
 for(let i=(namee.length-1); i>=0 ; i--){
  result=result+namee[i];
 }
console.log(result.length);
Output : isnaM
```

>Array Methods :

1. Push()	To add at the end can add multiple items at a time	`let items = ["apple" ,"Banana" , "Litchi" , "Mango"];`
		`items.push("chips");`
		`console.log(items);`
		`Output:` ['apple', 'Banana', 'Litchi', 'Mango', 'chips']

2. Pop()	Delete from end and return	`let items = ["apple" , "Banana" , "Litchi" , "Mango"];`
		`let deletedItem = items.pop();`
		`console.log(items);`
		`console.log(deletedItem);`
		`Output :` ['apple', 'Banana', 'Litchi']
		Mango

3. toString()	To convert an array into a string	`let items = ["apple" , "Banana" , "Litchi" , "Mango"];`
		`console.log(items);`
		`console.log(items.toString());`
		`Output :` ['apple', 'Banana', 'Litchi', 'Mango']
		apple , Banana, Litchi, Mango

4. Concat()	To add the two arrays	`let items = ["apple" , "Banana" , "Litchi" , "Mango"];`
		`let veges = ["tomatoes" , "Onion" , "Cabbage"];`
		`let meal = items.concat(veges)`
		`console.log(meal);`
		`Output :`
		[
		'apple', 'Banana',
		'Litchi', 'Mango',
		'tomatoes', 'Onion',
		'Cabbage'
		]

5. unshift()	Adds to the start of the array	`let items = ["apple" ,"Banana" , "Litchi" , "Mango"];`
		`items.unshift("chips");`
		`console.log(items);`
		`Output:` ['chips' ,'apple', 'Banana', 'Litchi', 'Mango']

6. Shift()	To delete a value from the start	`let items = ["apple" , "Banana" , "Litchi" , "Mango"];`
		`let deletedItem = items.unshift();`
		`console.log(items);`
		`console.log(deletedItem);`
		`Output :` ['Banana', 'Litchi' ,' Mango']
		apple

7. Slice()	Returns a piece of the array	`let items = ["apple" , "Banana" , "Litchi" , "Mango"]`
		`console.log(items.slice(1,3));`
		`OUTPUT :`
		['Banana', 'Litchi']

8. Splice()	Changes original array(add , remove , replace)	`Syntax : spilce(startIndex , delCount , newElement)`

NOTE : to print a pattern of capital alphabets we have to convert the numbers in ASCII values.....for that we use
String.fromCharCode(65+j)+" ";

This is for upper case...for lower case we use...(97+j)