JavaScript Array Methods - Complete Guide (With Code, Output & Explanation)

push()

Code:

```
let fruits = ["apple", "banana"];
fruits.push("mango", "grape");
console.log(fruits);
```

Output:

```
["apple", "banana", "mango", "grape"]
```

Explanation:

push() adds one or more elements at the end of an array and returns the new length.

pop()

Code:

```
let colors = ["red", "green", "blue"];
let removed = colors.pop();
console.log(colors);
console.log(removed);
```

Output:

```
["red", "green"]
"blue"
```

Explanation:

pop() removes the last element of an array and returns it.

map()

Code:

```
let numbers = [1, 2, 3, 4];
let squares = numbers.map(n => n * n);
console.log(squares);
```

Output:

```
[1, 4, 9, 16]
```

Explanation:

map() creates a new array by applying a function to each element of the original array.

filter()

Code:

```
let ages = [12, 18, 25, 30, 15];
let adults = ages.filter(age => age >= 18);
console.log(adults);
```

Output:

```
[18, 25, 30]
```

Explanation:

filter() returns a new array with only elements that satisfy the condition.

reduce()

Code:

```
let nums = [10, 20, 30, 40];
let sum = nums.reduce((acc, val) => acc + val, 0);
console.log(sum);
```

Output:

```
100
```

Explanation:

reduce() applies a function to accumulate array values into a single result (sum in this case).