

JavaScript

Lesson 6



JavaScript™

JavaScript Array Object

An array is a special variable, which can hold more than one value at a time. An array can hold many values under a single name, and you can access the values by referring to an index number.

Create an Array

An array can be created in three ways.

1: Regular:

```
var myCars=new Array();  
    myCars[0]="Saab";  
    myCars[1]="Volvo";  
    myCars[2]="BMW";
```

2: Condensed:

```
var myCars=new Array("Saab","Volvo","BMW");
```

3: Literal:

```
var myCars=["Saab","Volvo","BMW"];
```

Join two arrays-concat()

```
<p id="demo">Click the button to join two arrays.</p>  
<button onclick="myFunction()"> Try It </button>
```

```
<script>  
  function myFunction()  
  {  
    var hege = ["Cecilie", "Lone"];  
    var stale = ["Emil", "Tobias", "Linus"];  
    var children = hege.concat(stale);  
    var x=document.getElementById("demo");  
    x.innerHTML=children;  
  }  
</script>
```

Join three arrays-concat()

```
<p id="demo">Click the button to join three arrays.</p>
```

```
<button onclick="myFunction()"> Try It </button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
    var hege = ["Cecilie", "Lone"];
```

```
    var stale = ["Emil", "Tobias", "Linus"];
```

```
    var kai = ["Robin"];
```

```
    var children = hege.concat(stale,kai);
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=children;
```

```
  }
```

```
</script>
```

Join all elements of an array into a string-join()

```
<p id="demo">Click the button to join the array elements into a string.</p>  
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
{
```

```
    var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=fruits.join("*");
```

```
}
```

```
</script>
```

Remove the last element of an array- pop()

```
<p id="demo">Click the button to remove the last array element.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
      var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
      fruits.pop();
```

```
      var x=document.getElementById("demo");
```

```
      x.innerHTML=fruits;
```

```
  }
```

```
</script>
```

Add new elements to the end of an array-push()

```
<p id="demo">Click the button to add a new element to the array.</p>  
<button onclick="myFunction()">Try it</button>
```

```
<script>  
  function myFunction()  
  {  
      var fruits = ["Banana", "Orange", "Apple", "Mango"];  
      fruits.push("Kiwi");  
      var x=document.getElementById("demo");  
      x.innerHTML=fruits;  
  }  
</script>
```


Remove the first element of an array- shift()

```
<p id="demo">Click the button to remove the first element of the array.</p>  
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
    function myFunction()
```

```
    {
```

```
        var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
        fruits.shift();
```

```
        var x=document.getElementById("demo");
```

```
        x.innerHTML=fruits;
```

```
    }
```

```
</script>
```

Add new elements to the beginning of an array - unshift()

```
<p id="demo">Click the button to add elements to the array.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
    var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
    fruits.unshift("Lemon","Pineapple");
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=fruits;
```

```
  }
```

```
</script>
```

Reverse the order of the elements in an array - reverse()

```
<p id="demo">Click the button to reverse the order of the elements in the  
  array.</p>  
<button onclick="myFunction()">Try it</button>  
<script>  
  function myFunction()  
  {  
    var fruits = ["Banana", "Orange", "Apple", "Mango"];  
    fruits.reverse();  
    var x=document.getElementById("demo");  
    x.innerHTML=fruits;  
  }  
</script>
```

Select elements from an array – slice()

```
<p id="demo">Click the button to extract the second and the third elements from  
the array.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
    var fruits = ["Banana", "Orange", "Lemon", "Apple", "Mango"];
```

```
    var citrus = fruits.slice(1,3);
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=citrus;
```

```
  }
```

```
</script>
```

Sort an array (alphabetically and ascending) – sort()

```
<p id="demo">Click the button to sort the array.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
    var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
    fruits.sort();
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=fruits;
```

```
  }
```

```
</script>
```

Sort numbers (numerically and ascending) - sort()

```
<p id="demo">Click the button to sort the array.</p>
<button onclick="myFunction()">Try it</button>
<script>
  function myFunction()
  {
    var points = [40,100,1,5,25,10];
    points.sort(function(a,b){return a-b});
    var x=document.getElementById("demo");
    x.innerHTML=points;
  }
</script>
```

Sort numbers (numerically and descending) - sort()

```
<p id="demo">Click the button to sort the array.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
    var points = [40,100,1,5,25,10];
```

```
    points.sort(function(a,b){return b-a});
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=points;
```

```
  }
```

```
</script>
```

Add an element to position 2 in an array - splice()

```
<p id="demo">Click the button to add elements to the array.</p>
<button onclick="myFunction()">Try it</button>

<script>
  function myFunction()
  {
    var fruits = ["Banana", "Orange", "Apple", "Mango"];
    fruits.splice(2,0,"Lemon","Kiwi");
    var x=document.getElementById("demo");
    x.innerHTML=fruits;
  }
</script>
```


Convert an array to a string - toString()

```
<p id="demo">Click the button to convert the array into a String.</p>
```

```
<button onclick="myFunction()">Try it</button>
```

```
<script>
```

```
  function myFunction()
```

```
  {
```

```
    var fruits = ["Banana", "Orange", "Apple", "Mango"];
```

```
    fruits.toString();
```

```
    var x=document.getElementById("demo");
```

```
    x.innerHTML=fruits;
```

```
  }
```

```
</script>
```

Join two arrays - concat()

Join three arrays - concat()

Join all elements of an array into a string - join()

Remove the last element of an array - pop()

Add new elements to the end of an array - push()

Reverse the order of the elements in an array - reverse()

Remove the first element of an array - shift()

Select elements from an array - slice()

Sort an array (alphabetically and ascending) - sort()

Sort numbers (numerically and ascending) - sort()

Sort numbers (numerically and descending) - sort()

Add an element to position 2 in an array - splice()

Convert an array to a string - toString()

Add new elements to the beginning of an array - unshift()

Task 1:

Գրել մի \$Ֆունկցիա\$, որը տրված նախադասության բոլոր բառերը կդասավորի հակառակ հերթականությամբ ,բոլոր բառերի տառերը կդասավորի հակառակ հերթականությամբ, կկտրի վերջին տառերը և բոլորի 2-րդ տառը կփոխի “JS”: \$Ֆունկցիան պետք է վերադարձնի տող: