

ARRAYS



REVIEW



Arrays: core



Methods for creating arrays



Mutable methods



Immutable methods



Methods for searching



Methods for iterating



ARRAY

Data structure for storing list of values, identifier by index.



CREATING OF ARRAY

```
1 var arr = [1,2,3];
```

```
2
```



CREATING OF ARRAY

```
1 var arr = new Array(1,2,3);  
2
```



ARRAY TYPE

```
1 typedef [1,2,3];  
2
```



RIGHT CHECK

```
1 Array.isArray([1,2,3]);  
2
```



ARRAY LENGTH

```
1 [1,2,3].length;
```

```
2
```



ARRAY READING

```
1 var arr = [1,2,3];  
2 var first = arr[0];  
3
```



ARRAY WRITING

```
1 var arr = [1,2,3];  
2 arr[0] = 7;  
3
```



METHODS FOR CREATING



of



from



split



TBC



OF

```
1 var arr = Array.of(7);  
2
```



FROM

```
1 var arr = Array.from( 'Content' );
```

```
2
```



SPLIT

```
1 var names = 'Alex, Pitter, Oliver, Mark';  
2  
3 var arr = names.split( ', ' );
```



MUTABLE METHODS



fill



pop



push



reverse



sort



splice



shift



unshift



copyWithin



FILL

```
1 var arr = [1,2,3];  
2 arr.fill(6);  
3
```



POP

```
1 var arr = [1,2,3];  
2 arr.pop();  
3
```



PUSH

```
1 var arr = [1,2,3];  
2 arr.push(4,5);  
3
```



REVERSE

```
1 var arr = [1,2,3];  
2 arr.reverse();  
3
```



SORT

```
1 var arr = [3,2,7,1];  
2 arr.sort();  
3
```



SPLICE

```
1 var arr = [1,3,4];  
2 arr.splice(1,0,2);  
3
```



SHIFT

```
1 var arr = [1,2,3];  
2 arr.shift();  
3
```



UNSHIFT

```
1 var arr = [2,3];  
2 arr.unshift(1);  
3
```



COPYWITHIN

```
1 var arr = [1,2,3,0];  
2 arr.copyWithIn(1,3); // [1, 0, 3, 0]  
3
```



IMMUTABLE METHODS



concat



flat



flatMap



join



slice



CONCAT

```
1 var first = [1,2,3];  
2 var second = [4,5,6];  
3 var arr = first.concat(second);  
4
```



FLAT

```
1 var source = [1, 2, [3, 4]];
2 var destination = source.flat();
3
```



FLATMAP

```
1 var source = [1,2,3];  
2 var destination = source.flatMap(function(item){  
3     return [[item * 2]];  
4 });  
5
```



JOIN

```
1 var source = [1,2,3];  
2 var str = source.join(' ');  
3
```



SLICE

```
1 var source = [1,2,3,4];  
2 var destination = source.slice(1,4);  
3
```



METHODS FOR SEARCHING



find



findIndex



indexOf



lastIndexOf



FIND

```
1 var arr = [1,2,3,4,5];  
2  
3 var item = arr.find(function(element) {  
4     return element > 2;  
5 });  
6
```




FINDINDEX

```
1 var arr = [1,2,3,4,5];  
2  
3 var item = arr.findIndex(function(element) {  
4     return element > 2;  
5 });  
6
```



INDEXOF

```
1 var arr = [1,2,3,4,5];  
2  
3 var item = arr.indexOf(3);  
4
```



LASTINDEXOF

```
1 var arr = [1,2,3,4,3];  
2  
3 var item = arr.lastIndexOf(3);  
4
```



METHODS FOR ITERATING



forEach



filter



map



reduce



reduceRight



every



some



FOREACH

```
1 var arr = ['Alex', 'Pitter', 'Oliver'];  
2  
3 arr.forEach(function(item, i, arr) {  
4   console.log( i + ': ' + item + ' (array:' + arr + ')' );  
5 });
```



FILTER

```
1 var arr = [1, -1, 2, -2, 3];  
2  
3 var positiveArr = arr.filter(function(number) {  
4     return number > 0;  
5 });
```



MAP

```
1 var arr = ['HTML', 'CSS', 'JavaScript'];  
2  
3 var transformed = arr.map(function(name) {  
4     return name.toLowerCase();  
5 });
```



REDUCE

```
1 var arr = [1, 2, 3];  
2  
3 var result = arr.reduce(function(sum, current) {  
4     return sum + current;  
5 }, 0);
```



REDUCERIGHT

```
1 var arr = ['a', 'b', 'c'];  
2  
3 var result = arr.reduceRight(function(sum, current) {  
4   return sum + current;  
5 }, '');
```



EVERY

```
1 var arr = [1, -1, 2, -2, 3];  
2  
3 var status = arr.every(function(n) {  
4     return n > 0;  
5 });
```



SOME

```
1 var arr = [1, -1, 2, -2, 3];  
2  
3 var status = arr.some(function(n) {  
4     return n > 0;  
5 });
```

HERE GOES!



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