JS (03-07-24)

1. Given an array of numbers, use the map function to create a new array where each number is doubled.

const numbers = [1, 2, 3, 4, 5];

const doubledNumbers = numbers.map(x=>x\*2)

console.log(doubledNumbers);

Example Output:

[2, 4, 6, 8, 10]

2. Given an array of names, use the forEach function to print each name in the console.

const names = ['Alice', 'Bob', 'Charlie', 'David'];

names.forEach(name=>console.log(name));

Example Output:

Alice

Bob

Charlie

David

3. Given an array of numbers, use the filter function to create a new array that contains only the even numbers.

const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

const evenNumbers = numbers.filter(number=>number%2===0);

console.log(evenNumbers);

Example Output:

[2, 4, 6, 8, 10]

4. Given an array of objects representing students with their names and scores, use the map function to create a new array of strings that says "Name has scored Score".

const students = [

{ name: 'Alice', score: 85 },

{ name: 'Bob', score: 92 },

{ name: 'Charlie', score: 88 }

];

const studentString = students.map(student => `${student.name} has scored ${student.score}`)

console.log(studentString);

Example Output:

['Alice has scored 85', 'Bob has scored 92', 'Charlie has scored 88']

5. Given an array of objects representing people with their names and ages, use the filter function to create a new array that contains only the people who are 18 or older.

const people = [

{ name: 'Alice', age: 17 },

{ name: 'Bob', age: 20 },

{ name: 'Charlie', age: 15 },

{ name: 'David', age: 22 }

];

const adults = people.filter(person => person.age>=18)

console.log(adults);

Example Output:

[

{ name: 'Bob', age: 20 },

{ name: 'David', age: 22 }

]

6. Given an array of strings, use the map function to create a new array where each string is converted to uppercase.

const words = ['hello', 'world', 'javascript', 'map'];

const upper = words.map(word=>word.toUpperCase())

console.log(upper);

Example Output:

['HELLO', 'WORLD', 'JAVASCRIPT', 'MAP']

7. Given an array of numbers, use the forEach function to add 1 to each number in the array.

let numbers = [10, 20, 30, 40, 50];

numbers.forEach((number,index) => numbers[index]=console.log(number + 1));

Output :

numbers = [11, 21, 31, 41, 51];

8. Given an array of strings, use the filter function to create a new array that contains only the strings that have more than 3 characters.

const words = ['hi', 'hello', 'hey', 'world', 'js'];

const long = words.filter(long=>long.length>3)

console.log(long);

Output :

['hello', 'world']