

Array Methods

1. Write a program that uses filter to remove all negative numbers from an array of numbers
2. Given an array of numbers [1, 2, 3, 4, 5], use the map method to create a new array where each number is multiplied by 2.
3. Given an array of strings ["apple", "banana", "cherry", "date", "grape"], use the filter method to create a new array containing only the fruits with more than 5 characters.
4. Given an array of numbers [1, 2, 3, 4, 5, 6, 7, 8, 9, 10], use the map and filter methods together to create a new array containing the squares of even numbers.
5. Given an array of temperatures in Celsius [0, 10, 20, 30, 40], use the map method to create a new array where each temperature is converted to Fahrenheit using the formula $(\text{Celsius} * 9/5) + 32$.
6. Given an array of numbers [3, 6, 9, 12, 15, 18], use the map and filter methods together to create a new array containing the doubled values of odd numbers.
7. Given an array of names ["Alice", "Bob", "Charlie", "David", "Emily"], use the forEach method to log each name with an exclamation mark at the end, e.g., "Alice!".