

ES6

Arrow functions, filter, map, Destructuring, & Classes

1. Write a JavaScript program that takes an array of integers as input. Use arrow functions to perform the following tasks:

- Double the values of each element in the array.
- Filter the doubled values to include only the numbers greater than 20.
- Return the resulting filtered array as output.

Requirements:

- Use an arrow function to double the values of the array.
 - Use another arrow function within the filter() method to filter the doubled values.
2. Write a JavaScript program to calculate the sum of all elements in an array using an arrow function.
3. Write a program to filter even numbers from an array using an arrow function.
4. Write an arrow function to check if a given string is a palindrome (reads the same forward and backward).
5. Write a program to count the number of vowels in a string using an arrow function.
6. Write a JavaScript program to implement
- Object Destructuring
 - Array Destructuring
 - Destructuring with renaming
 - Destructuring with function
 - Destructuring with Rest operator
7. Write a JavaScript program to calculate the sum of squared odd numbers in an array using an arrow function (Hint: use filter, map & reduce).
8. Implement a 'BankAccount' class with private balance field, deposit(), withdraw(), and getBalance() methods.
9. Design a 'Rectangle' class with getters for area and perimeter, and setters for width and height validation.
10. Build a 'Shape' base class and extend it with Circle, Square, and Triangle classes implementing calculateArea().