**11. Reverse a String**

function reverseString(str: string): string {

return str.split('').reverse().join('');

}

**12. Check if a String is a Palindrome**

function isPalindrome(str: string): boolean {

const cleaned = str.toLowerCase().replace(/[^a-z0-9]/g, '');

return cleaned === cleaned.split('').reverse().join('');

}

**13. Count Numerical Digits in a String**

function countDigits(str: string): number {

return (str.match(/\d/g) || []).length;

}

**14. Count Occurrence of a Character**

function countChar(str: string, target: string): number {

return [...str].filter(c => c === target).length;

}

**15. Find Non-Matching Characters Between Two Strings**

function nonMatchingChars(str1: string, str2: string): string[] {

const set1 = new Set(str1);

const set2 = new Set(str2);

const diff1 = [...set1].filter(c => !set2.has(c));

const diff2 = [...set2].filter(c => !set1.has(c));

return [...diff1, ...diff2];

}

**16. Check if Two Strings Are Anagrams**

function areAnagrams(str1: string, str2: string): boolean {

const format = (s: string) => s.replace(/[^a-z]/gi, '').toLowerCase().split('').sort().join('');

return format(str1) === format(str2);

}

**17. Count Vowels and Consonants**

function countVowelsAndConsonants(str: string): { vowels: number, consonants: number } {

const vowels = str.match(/[aeiou]/gi) || [];

const consonants = str.match(/[bcdfghjklmnpqrstvwxyz]/gi) || [];

return { vowels: vowels.length, consonants: consonants.length };

}

**18. Total Matching Integer Elements in an Array**

function totalMatchingElements(arr: number[], target: number): number {

return arr.filter(n => n === target).reduce((sum, n) => sum + n, 0);

}

**19. Reverse an Array**

function reverseArray<T>(arr: T[]): T[] {

return arr.slice().reverse();

}

**20. Find Maximum Element in an Array**

function findMax(arr: number[]): number {

return Math.max(...arr);

}

**21. Sort Array in Ascending Order**

function sortArrayAsc(arr: number[]): number[] {

return arr.slice().sort((a, b) => a - b);

}

**22. Sum of Two Integers**

function sum(a: number, b: number): number {

return a + b;

}

**23. Average of Numbers in a List**

function average(arr: number[]): number {

return arr.length ? arr.reduce((sum, n) => sum + n, 0) / arr.length : 0;

}

**24. Check if Integer is Even or Odd**

function isEven(num: number): boolean {

return num % 2 === 0;

}

**25. Find Middle Element of a Linked List**

class ListNode {

value: number;

next: ListNode | null;

constructor(value: number) {

this.value = value;

this.next = null;

}

}

function findMiddle(head: ListNode | null): ListNode | null {

let slow: ListNode | null = head;

let fast: ListNode | null = head;

while (fast && fast.next) {

slow = slow!.next;

fast = fast.next.next;

}

return slow;

}