#### **Arrow Functions**

- 1. **Square of Numbers**: Write an arrow function that takes an array of numbers and returns a new array with the square of each number.
- 2. **Sum of Array**: Create an arrow function that takes an array of numbers and returns the sum of all elements.
- 3. **Filter Even Numbers**: Use an arrow function to filter and return only the even numbers from an array.

#### **Strings**

- 4. **Reverse a String**: Write a function that takes a string and returns its reverse.
- 5. **Count Vowels**: Create a function that counts the number of vowels in a string.
- 6. **Check Palindrome**: Write a function to check if a given string is a palindrome.

#### Arrays

- 7. **Find Max Number**: Write a function that finds and returns the maximum number in an array.
- 8. Remove Duplicates: Create a function that removes duplicate values from an array.
- 9. **Merge Arrays**: Write a function to merge two arrays and remove duplicates from the resulting array.

## **For Loops**

10. **Factorial Calculation**: Use a for loop to calculate the factorial of a given number.

## **While Loops**

- 12. **Sum of Digits**: Write a program using a while loop to calculate the sum of digits of a given number.
- 13. **Number Guessing Game**: Implement a simple guessing game where the user guesses a number until they get it correct (simulate with a random number).

## **Do While Loops**

- 14. **Print Numbers**: Use a do-while loop to print numbers from 1 to 20.
- 15. **Collect User Input**: Simulate collecting input from a user (e.g., prompts) in a do-while loop until they type "stop".

# **Challenge (Combining Topics)**

**Sorting Words**: Write a function that takes a string, splits it into an array of words, sorts the words alphabetically, and returns the sorted string.