**forEach**

**Question 1:** Write a function called printArrayElements that takes an array as a parameter and prints each element of the array.

For example,  The printArrayElements function takes an array arr as a parameter and uses the forEach loop to iterate through each element of the array. For each element, the function prints it to the console.

**Question 2:** Write a function called doubleArrayValues that takes an array of numbers as a parameter and doubles each element in the array.

For example,  The doubleArrayValues function takes an array arr as a parameter and uses the forEach loop to iterate through each element of the array. For each element, the function doubles its value and updates the value in the original array.

**Question 3:** Write a function called filterPositiveNumbers that takes an array of numbers as a parameter and returns a new array containing only the positive numbers.

For example,  The filterPositiveNumbers function takes an array arr as a parameter and uses the forEach loop to iterate through each element of the array. For each element, the function checks if it is greater than zero (positive) and adds it to a new array called positiveNumbers. The function then returns the positiveNumbers array, which contains only the positive numbers from the original array.

**For of**

**Question 1:** Write a function called printCharacters that takes a string as a parameter and prints each character of the string.

For example,  The printCharacters function takes a string str as a parameter and uses the for...of loop to iterate through each character of the string. For each character, the function prints it to the console.

**Question 2:** Write a function called sumArray that takes an array of numbers as a parameter and calculates their sum using a for...of loop.

For example, The sumArray function takes an array numbersArray as a parameter and initializes a variable sum to store the sum. It uses a for...of loop to iterate through each element of the array. For each element, it adds the value to the sum. Finally, it returns the total sum of the array.

**Question 3:** Write a function called filterEvenNumbers that takes an array of numbers as a parameter and returns a new array containing only the even numbers.

For example, The filterEvenNumbers function takes an array numbersArray as a parameter and initializes a new array evenNumbers to store the even numbers. It uses a for...of loop to iterate through each element of the array

**For in**

**Question 1:** Write a function called printObjectProperties that takes an object as a parameter and prints all its key-value pairs.

For example, The printObjectProperties function takes an object obj as a parameter and uses the for...in loop to iterate through all the properties (keys) of the object.

**Question 2:** Write a function called countVowels that takes a string as a parameter and counts the number of vowels (a, e, i, o, u) in the string using a for...in loop.

For example, The countVowels function takes a string str as a parameter and initializes a variable vowelsCount to keep track of the number of vowels found. It also creates an array vowels containing all the vowel characters. The function uses a for...in loop to iterate through the indices (keys) of the string. For each index, it checks if the character at that index is present in the vowels array (case-insensitive using toLowerCase()), and if it is a vowel, increments the vowelsCount. Finally, it returns the total count of vowels in the string.

**Question 3:** Write a function called calculateAverage that takes an object containing grades as a parameter and calculates the average grade.

For example,  The calculateAverage function takes an object grades as a parameter, which contains the subject-grade pairs for a student. The function initializes variables total and count to store the sum of grades and the number of subjects, respectively.

**While loop**

**Question 1:** Write a function called countDown that takes a positive integer as a parameter and prints a countdown from that number to 1.

**Question 2:** Write a function called sumDigits that takes an integer as a parameter and returns the sum of its digits.

**Question 3:** Write a function called generateFibonacci that takes a positive integer n as a parameter and generates the first n numbers in the Fibonacci sequence.

**Dowhile loop**

**Question 1:** Write a function called printNumbers that takes a positive integer n as a parameter and prints numbers from 1 to n using a do...while loop.

**Question 2:** Write a function called sumPositiveNumbers that takes positive numbers as input from the user until a negative number is entered. The function should then calculate and return the sum of all positive numbers.

**Question 3:** Write a function called guessSecretNumber that generates a secret number between 1 and 100 (inclusive) and asks the user to guess the number.

The function should keep asking for input until the user correctly guesses the secret number.