1. **Print odd numbers in an array**

(function () {

const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

const printOddNumbers = function (arr) {

for (let i = 0; i < arr.length; i++) {

if (arr[i] % 2 !== 0) {

console.log(arr[i]);

}

}

};

printOddNumbers(numbers);

})();

1. **Convert all the strings to title caps in a string array:**

(function () {

const stringArray = ["hello world", "javascript is fun", "title case example"];

const toTitleCase = function (str) {

return str.replace(/\w\S\*/g, function (txt) {

return txt.charAt(0).toUpperCase() + txt.substr(1).toLowerCase();

});

};

const titleCaseArray = stringArray.map(toTitleCase);

console.log(titleCaseArray);

})();

1. **Sum of all numbers in an array:**

(function () {

const numbers = [1, 2, 3, 4, 5];

const sumArray = function (arr) {

let sum = 0;

for (let i = 0; i < arr.length; i++) {

sum += arr[i];

}

return sum;

};

const result = sumArray(numbers);

console.log("The sum of the numbers is:", result);

})();

1. **Return all the prime numbers in an array**

(function () {

const numbers = [2, 3, 5, 7, 10, 11, 13, 14, 17];

const isPrime = function (num) {

if (num <= 1) {

return false;

}

for (let i = 2; i <= Math.sqrt(num); i++) {

if (num % i === 0) {

return false;

}

}

return true;

};

const primeNumbers = numbers.filter(function (num) {

return isPrime(num);

});

console.log("Prime numbers in the array:", primeNumbers);

})();

1. **Return all the palindromes in an array:**

(function () {

const words = ["radar", "hello", "level", "world", "deified"];

const isPalindrome = function (str) {

str = str.toLowerCase().replace(/[^a-zA-Z0-9]/g, "");

const reversed = str.split("").reverse().join("");

return str === reversed;

};

const palindromeWords = words.filter(function (word) {

return isPalindrome(word);

});

console.log("Palindromes in the array:", palindromeWords);

})();

1. **Return median of two sorted arrays of the same size:**

(function () {

const arr1 = [1, 3, 8, 12, 15];

const arr2 = [7, 11, 19, 21, 24];

const findMedianSortedArrays = function (nums1, nums2) {

const mergedArray = [...nums1, ...nums2].sort((a, b) => a - b);

const length = mergedArray.length;

if (length % 2 === 0) {

const middle1 = mergedArray[length / 2 - 1];

const middle2 = mergedArray[length / 2];

return (middle1 + middle2) / 2;

} else {

return mergedArray[Math.floor(length / 2)];

}

};

const median = findMedianSortedArrays(arr1, arr2);

console.log("Median of the two sorted arrays is:", median);

})();

1. **Remove duplicates from an array:**

(function () {

const arr1 = [1, 3, 8, 12, 15];

const arr2 = [7, 11, 19, 21, 24];

const findMedianSortedArrays = function (nums1, nums2) {

const mergedArray = [...nums1, ...nums2].sort((a, b) => a - b);

const length = mergedArray.length;

if (length % 2 === 0) {

const middle1 = mergedArray[length / 2 - 1];

const middle2 = mergedArray[length / 2];

return (middle1 + middle2) / 2;

} else {

return mergedArray[Math.floor(length / 2)];

}

};

const median = findMedianSortedArrays(arr1, arr2);

console.log("Median of the two sorted arrays is:", median);

})();

1. Rotate an array by k times

(function () {

const array = [1, 2, 3, 4, 5];

const k = 2;

const rotateArray = function (arr, k) {

const n = arr.length;

const rotatedArray = [];

for (let i = 0; i < n; i++) {

const newIndex = (i + k) % n;

rotatedArray[newIndex] = arr[i];

}

return rotatedArray;

};

const rotated = rotateArray(array, k);

console.log(`Array rotated by ${k} times:`, rotated);

})();

**ARROW FUNCTIONS**

1. **below programs in arrow functions:**

const numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

numbers.forEach((number) => {

if (number % 2 !== 0) {

console.log(number);

}

});

1. **Convert all the strings to title caps in a string array:**

const stringArray = ["hello world", "javascript is fun", "title case example"];

const titleCaseArray = stringArray.map((str) =>

str

.toLowerCase()

.split(' ')

.map((word) => word.charAt(0).toUpperCase() + word.slice(1))

.join(' ')

);

console.log(titleCaseArray);

1. **Sum of all numbers in an array:**

const numbers = [1, 2, 3, 4, 5];

const sum = numbers.reduce((accumulator, currentValue) => accumulator + currentValue, 0);

console.log("The sum of the numbers is:", sum);

1. **Return all the prime numbers in an array:**

const numbers = [2, 3, 4, 5, 6, 7, 8, 9, 10];

const isPrime = (num) => {

if (num <= 1) {

return false;

}

for (let i = 2; i <= Math.sqrt(num); i++) {

if (num % i === 0) {

return false;

}

}

return true;

};

const primeNumbers = numbers.filter((num) => isPrime(num));

console.log("Prime numbers in the array:", primeNumbers);

1. **Return all the palindromes in an array:**

const words = ["radar", "hello", "level", "world", "deified"];

const isPalindrome = (str) => {

str = str.toLowerCase().replace(/[^a-zA-Z0-9]/g, ""); // Convert to lowercase and remove non-alphanumeric characters

const reversed = str.split("").reverse().join("");

return str === reversed;

};

const palindromeWords = words.filter((word) => isPalindrome(word));

console.log("Palindromes in the array:", palindromeWords);