**Programs in anonymous function and IIFE:**

A: Print odd numbers in array

anonymous :

function(array){

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

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

console.log(array[i])

}

}

}

IIFE :

(function(array) {

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

if(array[i]%2 == 1) {

console.log(array[i]);

}

}

})([1,2,3,4,5,6,7,8])

Output:

1 3 5 7

—-----------------------------------------------------------------------------------------------------------

B: Convert all the strings to title caps in a string array:

Anonymous:

function func(str) {

str = str.toLowerCase().split(' ');

for (var i = 0; i < str.length; i++) {

str[i] = str[i].charAt(0).toUpperCase() + str[i].slice(1);

}

console.log(str.join(' '));

}

func("HI THIS IS NAVEEN");

IIFE:

(function (str) {

str = str.toLowerCase().split(' ');

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

str[i] = str[i].charAt(0).toUpperCase() + str[i].slice(1);

}

console.log(str.join(' '));

})("HI THIS IS NAVEEN");

Output:

Hi This Is Naveen

—-------------------------------------------------------------------------------------------------------------

C: Sum of all numbers in array:

Anonymous:

function func(arr) {

let sum=0;

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

sum+=arr[i];

}

console.log(sum);

}

func([1,2,3,4,5]);

IIFE:

(function (arr) {

let sum=0;

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

sum+=arr[i];

}

console.log(sum);

})([1,2,3,4,5]);

Output:

15

—-------------------------------------------------------------------------------------------------------------

D: Return all prime numbers in array:

Anonymous:

function func(numArray) {

numArray = numArray.filter((number) => {

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log(numArray);

}

func([1,2,3,4,5,6,7,8,9,10]);

IIFE:

(function(numArray){

numArray = numArray.filter((number) => {

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log(numArray);

})([1,2,3,4,5,6,7,8,9,10])

Output:

[ 1, 2, 3, 5, 7 ]

—----------------------------------------------------------------------------------------------------------------

E: Return all palindromes in array:

Anonymous:

function isPalindrome(N)

{

let str = "" + N;

let len = str.length;

for (let i = 0; i < parseInt(len / 2, 10); i++)

{

if (str[i] != str[len - 1 - i ])

return false;

}

return true;

}

function func(arr, n)

{

let res=[];

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

{

let ans = isPalindrome(arr[i]);

if (ans == false)

res.push(false);

else res.push(true);

}

return res;

}

console.log(func(["madam","sir","radar","hello"],4));

IIFE:

function isPalindrome(N)

{

let str = "" + N;

let len = str.length;

for (let i = 0; i < parseInt(len / 2, 10); i++)

{

if (str[i] != str[len - 1 - i ])

return false;

}

return true;

}

(function (arr, n)

{

let res=[];

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

{

let ans = isPalindrome(arr[i]);

if (ans == false)

res.push(false);

else res.push(true);

}

console.log(res);

})(["madam","sir","radar","hello"],4)

Output:

[ true, false, true, false ]

—-----------------------------------------------------------------------------------------------------------

F:.Return median of two sorted arrays of same size:

Anonymous:

function Median(ar1, ar2, n)

{

var i = 0;

var j = 0;

var count;

var m1 = -1, m2 = -1;

for (count = 0; count <= n; count++)

{

if (i == n)

{

m1 = m2;

m2 = ar2[0];

break;

}

else if (j == n)

{

m1 = m2;

m2 = ar1[0];

break;

}

if (ar1[i] <= ar2[j])

{

m1 = m2;

m2 = ar1[i];

i++;

}

else

{

m1 = m2;

m2 = ar2[j];

j++;

}

}

return (m1 + m2)/2;

}

var ar1 = [1, 3, 9, 15, 26];

var ar2 = [2, 7, 11, 18, 27];

var n = ar1.length;

console.log(Median(ar1, ar2, n));

IIFE:

(function Median(ar1, ar2, n)

{

var i = 0;

var j = 0;

var count;

var m1 = -1, m2 = -1;

for (count = 0; count <= n; count++)

{

if (i == n)

{

m1 = m2;

m2 = ar2[0];

break;

}

else if (j == n)

{

m1 = m2;

m2 = ar1[0];

break;

}

if (ar1[i] <= ar2[j])

{

m1 = m2;

m2 = ar1[i];

i++;

}

else

{

m1 = m2;

m2 = ar2[j];

j++;

}

}

console.log((m1 + m2)/2);

})([1, 3, 9, 15, 26],[2, 7, 11, 18, 27],5);

Output:

10

—-------------------------------------------------------------------------------------------------

G: Remove duplicates from array:

Anonymous:

function func(array){

let dup = [...new Set(array)];

console.log(dup);

}

func([1,1,3,3,4,5])

IIFE:

(function(array){

let dup = [...new Set(array)];

console.log(dup);

})([1,1,3,3,4,5])

Output:

[1,3,4,5]

—--------------------------------------------------------------------------------------------------------------

H: Rotate an array by K times:

Anonymous:

function reverse(a , li , ri){

while(li < ri){

let temp = a[li];

a[li]= a[ri];

a[ri] = temp;

li++;

ri--;

}

}

function func(a , k){

k = k % a.length;

if(k < 0){

k += a.length;

}

reverse(a, 0, a.length - k - 1);

reverse(a, a.length - k, a.length - 1);

reverse(a, 0, a.length - 1);

console.log(a);

}

func([1,2,3,4,5],3);

IIFE:

function reverse(a , li , ri){

while(li < ri){

let temp = a[li];

a[li]= a[ri];

a[ri] = temp;

li++;

ri--;

}

}

(function (a , k){

k = k % a.length;

if(k < 0){

k += a.length;

}

reverse(a, 0, a.length - k - 1);

reverse(a, a.length - k, a.length - 1);

reverse(a, 0, a.length - 1);

console.log(a);

})([1,2,3,4,5],3);

Output:

[3,4,5,1,2]

—-------------------------------------------------------------------------------------------------------

**Programs in Arrow functions:**

A: Print odd numbers in an array:

oddNumbers = (array) => {

for(var i = 0 ; i< array.length ; i++){

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

console.log(array[i])

}

}

}

oddNumbers([1,2,3,4,5]);

Output:

1 3 5

—------------------------------------------------------------------------------------------------

B: Convert all the strings to title caps in a string array:

titleCase = (str) => {

str = str.toLowerCase().split(' ');

for (var i = 0; i < str.length; i++) {

str[i] = str[i].charAt(0).toUpperCase() + str[i].slice(1);

}

return str.join(' ');

}

console.log(titleCase("MY NAME IS NAVEEN"));

Output:

My Name is Naveen

—--------------------------------------------------------------------------------------------------------------------

C: Sum of all numbers in an array:

sum = (array)=>{

var sum = 0;

for(var i = 0 ; i< array.length ; i++){

sum = sum + array[i];

}

return sum;

}

console.log(sum([1,2,3,4,5]));

Output:

15

—--------------------------------------------------------------------------------------------------------------

D: Return all the prime numbers in an array:

primeNumber = (numArray) => {

numArray = numArray.filter((number) => {

for (var i = 2; i <= Math.sqrt(number); i++) {

if (number % i === 0) return false;

}

return true;

});

console.log(numArray);

}

primeNumber([1,2,3,4,5,6,7,8,9,10]);

Output:

[1,2,3,5,7,9]

—--------------------------------------------------------------------------------------------------------------

E: Return all the palindromes in an array:

function isPalindrome(N)

{

let str = "" + N;

let len = str.length;

for (let i = 0; i < parseInt(len / 2, 10); i++)

{

if (str[i] != str[len - 1 - i ])

return false;

}

return true;

}

Palindrome = (arr, n) =>

{

let res=[];

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

{

let ans = isPalindrome(arr[i]);

if (ans == false)

res.push(false);

else res.push(true);

}

console.log(res);

}

Palindrome(["madam","sir","radar","hello"],4);

Output:

[true, false, true, false]

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