**TASK - 03**

**// 1.Do the below programs in an anonymous function & IIFE.**

**//a. Print add number in an array**

**//Anonymous**

var odd = function(array){

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

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

console.log(array[i])

}

}

}

odd([1,2,3,4,5,6]);

**//IIFE**

(function(array){

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

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

console.log(array[i])

}

}

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

// -------------------------------------------------------------------------------------------

**//b. Convert all strings to title caps in a string array**

**//Anonymous**

var A = function (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(A("poongulali"));

**//IIFE**

(function (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(' ');

})("poongulali");

//-----------------------------------------------------------------------------------------------

**//c. Sum of all numbers in an array**

**//Anonymous**

let sum = function(array){

var sum = 0;

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

sum = sum + array[i];

}

return sum;

}

console.log(sum([2,4,6]));

**//IIFE**

(function(array){

var sum = 0;

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

sum = sum + array[i];

}

return sum;

})([4,4,4,4])

//--------------------------------------------------------------------------------------------------------

**//d. Return all the prime numbers in an array.**

**//Anonymous**

let primeNumber = 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);

}

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

**//IIFE**

( function(numArray){

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

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

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

}

return true;

});

return (numArray);

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

//---------------------------------------------------------------------------------------------------------------

**//e. Return all the palindromes in an array.**

**//Anonymous**

let a = function (arr, n)

{

// Traversing each element of the array

// and check if it is palindrome or not

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

{

let ans = isPalindrome(arr[i]);

if (ans == false)

return false;

}

return true;

}

console.log(a([1,2,2,3,1,2], 6));

**//IIFE**

( function (arr, n)

{

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

{

let ans = isPalindrome(arr[i]);

if (ans == false)

return false;

}

return true;

})([1,2,3] , 3)

//---------------------------------------------------------------------------------------------------------

**//f. Return median of two sorted arrays of the same size.**

**//Anonymous**

let median= function(){

function getMedian(ar1, ar2, n)

{

let j = 0;

let i = n - 1;

while (ar1[i] > ar2[j] && j < n && i > -1)

{

let temp = ar1[i];

ar1[i] = ar2[j];

ar2[j] = temp;

i--; j++;

}

ar1.sort(function(a, b){return a - b});

ar2.sort(function(a, b){return a - b});

return parseInt((ar1[n - 1] + ar2[0]) / 2, 10);

}

let ar1 = [ 1, 12, 15, 2, 38 ];

let ar2 = [ 2, 13, 17, 30, 45 ];

let n1 = 5;

let n2 = 5;

if (n1 == n2)

console.log(getMedian(ar1, ar2, n1));

};median();

**//IIFE**

(function(){

function getMedian(ar1, ar2, n)

{

let j = 0;

let i = n - 1;

while (ar1[i] > ar2[j] && j < n && i > -1)

{

let temp = ar1[i];

ar1[i] = ar2[j];

ar2[j] = temp;

i--; j++;

}

ar1.sort(function(a, b){return a - b});

ar2.sort(function(a, b){return a - b});

return parseInt((ar1[n - 1] + ar2[0]) / 2, 10);

}

let ar1 = [ 1, 12, 15, 2, 38 ];

let ar2 = [ 2, 13, 17, 30, 45 ];

let n1 = 5;

let n2 = 5;

if (n1 == n2)

console.log(getMedian(ar1, ar2, n1));

})();

//---------------------------------------------------------------------------------------------------------

**//g. Remove duplicates from an array.**

**//anonymous**

let dup = function(array){

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

return (dup);

}

console.log(dup([1,1,2,3,]));

**//IIFE**

(function(array){

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

return (dup);

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

//--------------------------------------------------------------------------------------------------------

**//h. Rotate an array by k times**

**//Anonymous**

var rotate = function() {

let nums=[1,2,3,6];

let k=2;

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

nums.unshift(nums.pop()) ;

}

console.log(nums);

};rotate();

**///IIFE**

(function(){

let nums=[1,2,3,6];

let k=2;

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

nums.unshift(nums.pop()) ;

}

console.log(nums);

})();

//-----------------------------------------------------------------------------------------------------------

**//2. Do the below programs in arrow function.**

**//a. print add number in an array**

let odd=() =>{

let number=[1,2,3,4,5,6,7,8,9,10];

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

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

console.log(number[i]);

}

}

};

odd();

//----------------------------------------------------------------------------------------------------

**//b. Convert all strings to title caps in a string array**

let tittlecaps=()=>{

let str=("hello world".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(" "));

};

tittlecaps();

//----------------------------------------------------------------------------------------------------

**//c. Sum of all numbers in an array**

let sum=()=>{

let str=[50,45,78];

let sum=0;

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

sum +=str[i];

}

console.log(sum);

};

sum();

//----------------------------------------------------------------------------------------------------

**//d. Return all the prime numbers in an array**.

let primeNumbers =()=>{

var numArray = [2, 3, 4, 5, 6, 7, 8, 9, 10];

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

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

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

}

return true;

});

console.log(numArray);

};

primeNumbers();

//----------------------------------------------------------------------------------------------------

**//e. Return all the palindromes in an array.**

let ask=() =>{

var myArray = ['dad', 'cecarar', 'honda', 'malayalam'];

var b = myArray.filter(function(c,d,f){

var Cur = c.split('').reverse().join('');

if(c == Cur){

console.log( myArray[d] );

}

});

};ask();

//------------------------------------------------------------------------------------------------------