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

**a ) Print odd numbers in an array**

var array=[1,2,3,4,5,6,7,8,9,];

anonymous : function(array){

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

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

console.log(array[i]);

}

}

}(array);

we call this function=>var array=[1,2,3,4,5,6,7,8,9,];

let abc=function(array){

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

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

console.log(array[i]);

}

}

};

abc(array);output=>

1

3

5

7

9

**b ) Convert all the strings to title caps in a string array**

var str="my name is ayesha";

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(' ');

}(str)

we can call this function=>

var str="my name is ayesha";

let def=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(' ');

}

def(str)

IIFE :

var str="my name is ayesha";

(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(' ');

})(str);

**c ) Sum of all numbers in an array**

const sum = [1, 2, 3].reduce(add, 0);

function add(accumulator, a) {

return accumulator + a;

}

console.log(sum);

**OUTPUT(6)**

**d ) Return all the prime numbers in an array**

let n=34;

function (n)

{

for(let i=2; i<=n; i++)

{

let flag=0;

for(let j=2; j<i; j++)

{

if(i%j==0)

{

flag=1;

break;

}

}

if(flag==0)

{

console.log(i);

}

}

}

(n);

we can use this function =>

let n=34;

let l=function (n)

{

for(let i=2; i<=n; i++)

{

let flag=0;

for(let j=2; j<i; j++)

{

if(i%j==0)

{

flag=1;

break;

}

}

if(flag==0)

{

console.log(i);

}

}

}

l(n);

IIFE :

let n=34;

(function (n)

{

for(let i=2; i<=n; i++)

{

let flag=0;

for(let j=2; j<i; j++)

{

if(i%j==0)

{

flag=1;

break;

}

}

if(flag==0)

{

console.log(i);

}

}

})(n);

**e ) Return all the palindromes in an array**

Anonymous Function : 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;

}(arr,n)

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

function(nums1, nums2) {

let s1= nums1.length

let s2= nums2.length

let index = s1+s2

if(s1==0){

if(s2%2==1){

return nums2[Math.floor(index/2)]

}else{

return (nums2[Math.floor(index/2)-1] + nums2[Math.floor(index/2)])/2

}

}

for(let i=0 ; i<index/2+1;i++){

nums1.push(nums2[i])

}

nums1.sort((a,b)=>a-b)

console.log(nums1)

if(index%2==1){

return nums1[Math.floor(index/2)]

}else{

return (nums1[Math.floor(index/2)-1] + nums1[Math.floor(index/2)])/2

}

};

**g ) Remove duplicates from an array**

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

function (array){

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

return(dup);

}

(array);

IIFE :

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

(function (array){

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

return(dup);

})

(array);

**h ) Rotate an array by k times**

function (a, n, k)

{

k = k % n;

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

if (i < k) {

console.log(a[n + i - k] + " ");

}

else {

console.log((a[i - k]) + " ");

}

}

}

let Array = [1, 2, 3, 4, 5];

let N = Array.length;

let K = 2;

(Array, N, K);

**2.Do the below programs in arrow functions.**

**a ) Print odd numbers in an array**

var y=[1,2,3,4,5,6,7]

var odd=(array)=>{

let arr=[];

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

{

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

{

arr.push(array[i]);

}

}

return arr;

}

console.log(odd(y));

**b ) Convert all the strings to title caps in a string array**

var str="my name is ayesha";

let def= (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(def(str));

**c ) Sum of all numbers in an array**

var a=[1,2,3,4,5,6,7,8,9];

var sum=0;

let ghi=(a)=>

{

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

{

sum=sum+a[i];

}

return sum;

}

console.log(ghi(a));

**d ) Return all the prime numbers in an array**

let n=34;

let l=(n)=>

{

for(let i=2; i<=n; i++)

{

let flag=0;

for(let j=2; j<i; j++)

{

if(i%j==0)

{

flag=1;

break;

}

}

if(flag==0)

{

console.log(i);

}

}

}

console.log(l(n));

**e ) Return all the palindromes in an array**

Palindrome = (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;

}