**Do the below programs in anonymous function and IIFE**

**Print odd numbers in an array**

**let arr =userInput[0].split(' ').map(Number);**

**//ananymous function**

let odd = function(arr1)

{

var i=0,j=0;

for(i=0;i<arr1.length;i++)

{

if(arr1[i]%2!==0)

console.log(arr1[i]);

}

}

odd(arr);

**//iife function**

(function(arr1)

{

var i=0;

for(i=0;i<arr1.length;i++)

{

if(arr1[i]%2!==0)

console.log(arr1[i]);

}

}(arr));

**Sum of all numbers in an array**

**let arr =userInput[0].split(' ').map(Number);**

**//ananymous function**

let fun = function(arr1)

{

var i=0,sum=0;

for(i=0;i<arr1.length;i++)

{

sum+=arr1[i];

}

console.log(sum);

}

fun(arr);

**//iife function**

(function(arr1)

{

var i=0,sum=0;

for(i=0;i<arr1.length;i++)

{

sum+=arr1[i];

}

console.log(sum);

}(arr));

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

**let arr =userInput[0].split(' ').map(Number);**

**//ananymous function**

let prime = function(arr1)

{

var i=0,count=0;

for(i=0;i<arr1.length;i++)

{

count=0;

for(var j=1;j<=parseInt(arr1[i]/2);j++)

{

if(arr1[i]%j===0)

count++;

//console.log(count);

}

if(count===1)

console.log(arr1[i]);

}

}

prime(arr);

**//iife function**

(function(arr1)

{

var i=0,count=0;

for(i=0;i<arr1.length;i++)

{

count=0;

for(var j=1;j<=parseInt(arr1[i]/2);j++)

{

if(arr1[i]%j===0)

count++;

//console.log(count);

}

if(count===1)

console.log(arr1[i]);

}

}(arr));

**Remove duplicates from an array**

**let arr =userInput[0].split(' ').map(Number);**

**//ananymous function**

let duplicate = function(arr1)

{

var i=0;

var arr2=[];

for(i=0;i<arr1.length;i++)

{

if(arr1[i]!=-1)

{

arr2.push(arr1[i]);

for(var j=i+1;j<arr1.length;j++)

{

if(arr1[i]===arr1[j])

arr1[j]=-1;

}

}

}

console.log(arr2);

}

duplicate(arr);

**//iife function**

(function(arr1)

{

var i=0;

var arr2=[];

for(i=0;i<arr1.length;i++)

{

if(arr1[i]!=-1)

{

arr2.push(arr1[i]);

for(var j=i+1;j<arr1.length;j++)

{

if(arr1[i]===arr1[j])

arr1[j]=-1;

}

}

}

console.log(arr2);

}(arr));

**Rotate an array by k times and return the rotated array.**

let arr =userInput[0].split(' ').map(Number);

let k = parseInt(userInput[1]);

**//ananymous function**

let rotation = function(arr1, k)

{

if(k==arr1.length)

console.log(arr1);

else

{

var i=0, j=0,num=0;

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

{

num=arr1[arr1.length-1];

for(j=arr1.length-1;j>0;j--)

{

arr1[j]=arr1[j-1];

}

arr1[j]=num;

console.log(arr1);

}

}

}

rotation(arr,k);

**//iife function**

(function(arr1)

{

if(k==arr1.length)

console.log(arr1);

else

{

var i=0, j=0,num=0;

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

{

num=arr1[arr1.length-1];

for(j=arr1.length-1;j>0;j--)

{

arr1[j]=arr1[j-1];

}

arr1[j]=num;

console.log(arr1);

}

}

}(arr));

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

let arr =userInput[0].split(' ');

let brr = userInput[1].split(' ');

**//ananymous function**

let rotation = function(arr1)

{

var i=0;

for(i=0;i<arr1.length;i++)

{

arr1[i]=arr1[i].toUpperCase();

}

console.log(arr1);

}

rotation(arr);

**//iife function**

(function(arr1)

{

var i=0;

for(i=0;i<arr1.length;i++)

{

arr1[i]=arr1[i].toUpperCase();

}

console.log(arr1);

}(brr));

**Return all the palindromes in an array**

**let arr =userInput[0].split(' ');**

**let brr = userInput[1].split(' ');**

**//ananymous function**

let rotation = function(arr1)

{

var i=0, j=0, k=0;

while(k<arr1.length)

{

let str = arr1[k].split('');

//console.log(str);

let count=0;

for(i=0, j=str.length-1;i<=j;i++, j--)

{

if(str[i]!==str[j])

{

count++;

break;

}

}

if(count===0)

console.log(arr1[k]);

k++;

}

}

rotation(arr);

**//iife function**

(function(arr1)

{

var i=0, j=0, k=0;

while(k<arr1.length)

{

let str = arr1[k].split('');

//console.log(str);

let count=0;

for(i=0, j=str.length-1;i<=j;i++, j--)

{

if(str[i]!==str[j])

{

count++;

break;

}

}

if(count===0)

console.log(arr1[k]);

k++;

}

}(brr));

**Return median of two sorted arrays of same size**

**let arr1 =userInput[0].split(' ').map(Number);**

**let arr2 = userInput[1].split(' ').map(Number);**

**let arr3 =userInput[2].split(' ').map(Number);**

**let arr4 = userInput[3].split(' ').map(Number);**

**//ananymous function**

let rotation = function(arr1,arr2)

{

var arr3 = arr1;

var i=0;

for(i=0;i<arr2.length;i++)

{

arr3.push(arr2[i]);

}

arr3 = arr3.sort(function(a,b){return a-b});

sum = arr3[arr3.length/2]+arr3[(arr3.length/2)-1];

console.log(sum);

}

rotation(arr1,arr2);

**//iife function**

(function(arr1,arr2)

{

var arr3 = arr1;

var i=0;

for(i=0;i<arr2.length;i++)

{

arr3.push(arr2[i]);

}

arr3 = arr3.sort(function(a,b){return a-b});

sum = arr3[arr3.length/2]+arr3[(arr3.length/2)-1];

console.log(sum);

}(arr3,arr4));

**Generate an API key with given link below https://openweathermap.org/guide Print the current weather data in console- By lat lang**

**JS Code:**

*var* req = new *XMLHttpRequest*();

req.open('get','https://restcountries.eu/rest/v2/all',true);

req.send();

req.onload=*function*(){

*var* d = JSON.parse(req.response);

*var* i=0, latlng=[],j=0;

*var* api\_key ='51063eb4a536752727e0e6c33d0d6935';

*let* coun\_name = prompt("Enter country name");

    for( i of d)

    {

        if(i.name.toLowerCase() == coun\_name.toLocaleLowerCase())

        {

            latlng[0]=i.latlng[0];

            latlng[1]=i.latlng[1];

        }

    }

    console.log(coun\_name);

    console.log(latlng);

*var* lat = latlng[0].toString();

*var* long = latlng[1].toString();

*var* weather = *function*(*lat*,*long*, *api\_key*)

    {

*var* r = new *XMLHttpRequest*();

*var* str='https://api.openweathermap.org/data/2.5/weather?lat='+*lat*+'&lon='+*long*+'&appid='+*api\_key*+'';

        r.open('get',str,true);

        r.send();

        r.onload=*function*(){

*var* data = JSON.parse(this.response);

            console.log(data);

        }

    }

    weather(lat,long, api\_key)

};

**HTML Code:**

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>JSON</title>

</head>

<body>

    <script src="one.js"></script>

</body>

</html>