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

## Print odd numbers in an array

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

### **Anonymous function**

let odd=function(arr){

let res=[];

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

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

res.push(arr[i]);}

return res;

}

console.log(odd(arr));

Output:

[ 3, 5, 7, 9, 1 ]

### **IIFE function**

console.log((function(arr){

let res=[];

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

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

res.push(arr[i]);}

return res;})(arr));

Output:

[ 3, 5, 7, 9, 1 ]

# 2. Convert all the strings to title caps in a string array

let arr=["apple","banana","carrot","delicious","egg"];

### **Anonymous function**

let capsFirst=function(arr){

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

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

return arr;

}

console.log(capsFirst(arr));

Output:

[ 'Apple', 'Banana', 'Carrot', 'Delicious', 'Egg' ]

### **IIFE function**

console.log((function(arr){

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

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

return arr;})(arr));

Output:

[ 'Apple', 'Banana', 'Carrot', 'Delicious', 'Egg' ]

# 

## 

## 3. Sum of all numbers in an array

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

### **Anonymous function**

let arrSum=function(arr){

let sum=0;

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

sum = sum+Number(arr[i]);

return sum;

}

console.log(arrSum(arr));

Output:

45

### **IIFE function**

console.log((function(arr){

let sum=0;

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

sum = sum+Number(arr[i]);

return sum;})(arr));

Output:

45

## 4. Return all the prime numbers in an array

let arr=[1,2,3,4,5,6,7,8,9,11,13];

### **Anonymous function**

let prime=function(arr){

let res=[];

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

let j;let flag=0;

if(arr[i]<2) continue;

for(j=2;j<arr[i];j++){

if(arr[i]%j===0){

flag=1;

break;}}

if(flag===0)

res.push(arr[i]);}

return res;

}

console.log(prime(arr));

Output:

[ 2, 3, 5, 7, 11, 13 ]

### **IIFE function**

console.log((function(arr){

let res=[];

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

let j;let flag=0;

if(arr[i]<2) continue;

for(j=2;j<arr[i];j++){

if(arr[i]%j===0){

flag=1;

break;}}

if(flag===0)

res.push(arr[i]);

}

return res;})(arr));

Output:

[ 2, 3, 5, 7, 11, 13 ]

## 5. Return all the palindromes in an array

let arr=[11,13,121,131,77,56];

### **Anonymous function**

let palindrome=function(arr){

let res=[];

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

let temp=arr[i].toString().split("");

let flag=0;

for(let j=0;j<=(temp.length/2);j++){

if(temp[j]===temp[temp.length-1-j]) continue;

else{

flag=1;

break;

} }

if(flag===0)

res.push(arr[i]);

}

return res;}

console.log(palindrome(arr));

Output:

[ 11, 121, 131, 77 ]

### **IIFE function**

console.log((function(arr){

let res=[];

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

let temp=arr[i].toString().split("");

let flag=0;

for(let j=0;j<=(temp.length/2);j++){

if(temp[j]===temp[temp.length-1-j]) continue;

else{

flag=1;

break;

} }

if(flag===0)

res.push(arr[i]);

}

return res;})(arr));

Output:

[ 11, 121, 131, 77 ]

## 6. Return median of two sorted arrays of the same size

let arr1=[1,2,3,4,5]

let arr2=[6,7,8,9,10]

### **Anonymous function**

let median=function(arr1,arr2){

let res=arr1.concat(arr2);

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

let output=(res[(res.length/2)-1]+res[(res.length/2)])/2

return output;}

console.log(median(arr1,arr2));

Output:

5.5

### **IIFE function**

console.log((function(arr1,arr2){

let res=arr1.concat(arr2);

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

let output=(res[(res.length/2)-1]+res[(res.length/2)])/2

return output;})(arr1,arr2));

Output:

5.5

## 7. Remove duplicates from an array

### **Anonymous function**

let arr1=[1,2,3,3,4,5,5,6,7,8,8,9]

let unique=function(arr1){

let output=[];

output.push(arr1[0]);

for(let i=1;i<arr1.length;i++){

if(output.includes(arr1[i]))

continue;

else

output.push(arr1[i]);

}

return output;}

console.log(unique(arr1));

Output:

[ 1, 2, 3, 4, 5, 6, 7, 8, 9 ]

### **IIFE function**

console.log((function(arr1){

let output=[];

output.push(arr1[0]);

for(let i=1;i<arr1.length;i++){

if(output.includes(arr1[i]))

continue;

else

output.push(arr1[i]);

}

return output;})(arr1));

Output:

[ 1, 2, 3, 4, 5, 6, 7, 8, 9 ]

## 8. Rotate an array by k times

let arr1=[1,2,3,4,5,6,7,8,9];

k=4;

### **Anonymous function**

let rotate=function(arr1,k){

let output=[];

output= arr1.slice(k).concat(arr1.slice(0,k));

return output;}

console.log(rotate(arr1,k));

Output:

[ 5, 6, 7, 8, 9,1, 2, 3, 4 ]

* **IIFE function**

console.log((function(arr1,k){

let output=[];

output= arr1.slice(k).concat(arr1.slice(0,k));

return output;})(arr1,k));

Output:

[ 5, 6, 7, 8, 9,1, 2, 3, 4 ]