**Task for Day3**

1. Do the below programs in anonymous function & IIFE

* Print odd numbers in an array

let a = [2,3,4,5,6,7]

let oddNumbers = ((array)=>{

let odd = []

for(let i of array){

if(i%2!=0)

odd.push(i)

}return odd

})(a)

console.log(oddNumbers)

* Sum of all numbers in an array

let a = [2,3,4,5,6,7]

let sum = ((array)=>{

let arrayOfSum = 0

for(let i of array){

arrayOfSum += i

}return arrayOfSum;

})(a)

console.log(sum)

* Remove duplicates from an array

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

let removeDuplicates = ((array)=>{

return [...new Set(array)]

})(a)

console.log(removeDuplicates)

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

let arrayofString = "welcome to the guvi class"

let titleCaps = ((str)=>{

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

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

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

}

return str.join(' ')

})(arrayofString)

console.log(titleCaps)

* Return all the palindromes in an array

let words = ['foo', 'racecar', 'pineapple', 'porcupine', 'pineenip'];

let palindrom = ((array)=>{

let arr = [];

let str = array.slice(0);

let pal = str.toString().split("").reverse().join("").split(",");

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

for (let k = 0; k < pal.length; k++) {

if (words[i] == pal[k]) {

arr.push(words[i])

}

}

}return arr

})(words)

console.log(palindrom);

* Rotate an array by k times

let arr = [1, 3, 5, 7, 9];

let k = 2;

let rotateArray = ((arr, k) =>{

const n = arr.length;

if (k === 0) {

return;

}

let temp = arr[n - 1];

for (let i = n - 1; i > 0; i--) {

arr[i] = arr[i - 1];

}

arr[0] = temp;

rotateArray(arr, k - 1);

})

rotateArray(arr, k);

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

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

let ar1 = [1, 12, 15, 26, 38];

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

let n1 = ar1.length;

let n2 = ar2.length;

let getMedian = ((ar1, ar2, n)=>

{

let i = 0;

let j = 0;

let count;

let 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;

})(ar1,ar2,n1)

if (n1 == n2)

console.log("Median is "+ getMedian);

else

console.log("It does not work");

* Return all the prime numbers in an array

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

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

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

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

}

return true;

})

console.log(numArray);

1. Do the below programs in arrow functions.

* Print odd numbers in an array

let a = [1,2,3,4,5,6]

let oddNum = (array)=>{

let odd = []

for(let i of array){

if(i%2!=0)

odd.push(i)

}return odd

}

console.log(oddNum(a))

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

let arrayofString = "welcome to the guvi class"

let titleCaps = (str)=>{

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

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

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

}

return str.join(' ')

}

console.log(titleCaps(arrayofString))

* Sum of all numbers in an array

let a = [2,3,4,5,6,7]

let sum = (array)=>{

let arrayOfSum = 0

for(let i of array){

arrayOfSum += i

}return arrayOfSum;

}

console.log(sum(a))

* Return all the prime numbers in an array

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

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

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

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

}

return true;

})

console.log(numArray);

* Return all the palindromes in an array

let words = ['foo', 'racecar', 'pineapple', 'porcupine', 'pineenip'];

let palindrom = (array)=>{

let arr = [];

let str = array.slice(0);

let pal = str.toString().split("").reverse().join("").split(",");

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

for (let k = 0; k < pal.length; k++) {

if (words[i] == pal[k]) {

arr.push(words[i])

}

}

}return arr

}

console.log(palindrom(words));