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

**//Print odd numbers in an array**

let arr=[0,1,2,3,4,5,6,7,8,9];

**//anonymous function**

let data = function(arr)

{

let val=[];

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

{

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

{

val.push(arr[i])

}

}

return val

}

console.log(data(arr));

**//IIFE**

(function()

{

let val=[];

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

{

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

{

val.push(arr[i])

}

}

console.log(val)

}

)(arr);

**Output:**



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

let str=["guvi","javascript","course"]

**//anonymous function**

let data1 = function(str)

{

let val=[];

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

{

val.push(str[i][0].toUpperCase() + str[i].slice(1))

}

return val

}

console.log(data1(str));

**//IIFE**

(function(str)

{

let val=[];

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

{

val.push(str[i][0].toUpperCase() + str[i].slice(1))

}

console.log(val)

})(str);

**Output:**



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

let ref=[0,1,2,3,4,5,6,7,8,9];

**//anonymous function**

let viv=function () {

let sum=0;

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

sum+=ref[i]

}

return(sum)

}

console.log(viv(ref));

**//IIFE**

(function () {

let sum=0;

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

sum+=ref[i]

}

console.log(sum)

})(ref);

**Output:**



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

let pri = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9];

**//anonymous function**

let viv1=function () {

let prime = [];

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

if(pri[i]==0 || pri[i]==1)

{

continue

}

if (pri[i] === 2) {

prime.push(pri[i])

}

else {

let flag = true

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

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

flag = false

}

}

if (flag === true) {

prime.push(pri[i])

}

}

}

return(prime)

}

console.log(viv1(pri));

**//IIFE**

(function () {

let prime = [];

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

if(pri[i]==0 || pri[i]==1)

{

continue

}

if (pri[i] === 2) {

prime.push(pri[i])

}

else {

let flag = true

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

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

flag = false

}

}

if (flag === true) {

prime.push(pri[i])

}

}

}

console.log(prime)

})(pri);

**Output:**

****

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

let pal=["madam","mom","malayalam","rayar","kaaa"]

**//anonymous function**

let palindrom = function(pal)

{

let val=[];

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

{

let a=pal[i].split('');

let k=a.reverse();

let t=k.join('');

if(t===pal[i])

{

val.push(pal[i])

}

}

return val

}

console.log(palindrom(pal));

**//IIFE**

(function(pal)

{

let val=[];

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

{

let a=pal[i].split('');

let k=a.reverse();

let t=k.join('');

if(t===pal[i])

{

val.push(pal[i])

}

}

console.log(val)

})(pal);

**Output:**



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

let a=[1, 12, 15, 26, 38]

let b=[2, 13, 17, 30, 45]

**//anonymous function**

let medi=function(a,b){

var a1 = a.length;

var b1 = b.length;

if (a1 == b1){

let k=[...a,...b]

let datam=k.sort((t,d)=>t-d);

return ("Median is "+ (datam[a1-1]+datam[a1])/2);

}

else{

return ("Doesn't work for arrays of unequal size");}

}

console.log(medi(a,b));

**//IIFE**

(function (a, b) {

var a1 = a.length;

var b1 = b.length;

if (a1 == b1) {

let k = [...a, ...b];

let datam = k.sort((t, d) => t - d);

console.log("Median is " + (datam[a1 - 1] + datam[a1]) / 2)

}

else {

console.log("Doesn't work for arrays of unequal size")

}

})(a, b);

**Output:**



**//Remove duplicates from an array**

let chars1 = ['A', 'B', 'A', 'C', 'B'];

**//anonymous function**

let dupli=function (chars1)

{

let uniqueChars1 = [];

chars1.forEach((c) => {

if (!uniqueChars1.includes(c)) {

uniqueChars1.push(c);

}

})

return (uniqueChars1)

}

console.log(dupli(chars1));

**//IIFE**

let chars2 = ['A', 'B', 'A', 'C', 'B'];

(function (chars2)

{

let uniqueChars1 = [];

chars2.forEach((c) => {

if (!uniqueChars1.includes(c)) {

uniqueChars1.push(c);

}

})

console.log(uniqueChars1)

})(chars2)

**Output:**

****

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

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

let k='3'

let nums1=[1,2,3,4,5]

let k1='3'

**//anonymous function**

const rotateArray1 = function(nums, k) {

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

nums.unshift(nums.pop());

}

return nums;

}

console.log(rotateArray1(nums,k));

**//IIFE**

(function(nums1, k1) {

for (let i = 0; i < k1; i++) {

nums1.unshift(nums1.pop());

}

console.log(nums1);

}

)(nums1, k1);

**Output:**

****

**https://medium.com/@reach2arunprakash/guvi-zen-class-javascript-warm-up-programming-problems-15973c74b87f**

**Do the below programs in arrow functions**

**//Print odd numbers in an array**

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

let p=s.filter(s=>(s%2)!==0)

console.log(p)

**Output:**



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

let s1=['vivek','samy','dhoni','rahul']

let p1=s1.map((s1)=>{return s1.charAt(0).toUpperCase()+s1.slice(1)});

console.log(p1)

**Output:**



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

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

let sum1=nu.reduce((c,a)=>c+=a,0)

console.log(sum1)

**Output:**



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

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);

**Output:**



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

let str1=['foo', 'racecar', 'pineapple', 'porcupine', 'pineenip']

const result = str1.filter(str1 => str1.toLowerCase() == str1.toLowerCase().split('').reverse().join(''));

console.log(result)

**Output:**

