**Task05**

**Question 1**

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

**a.**

**Print odd numbers in an array**

**Answer :**

**let arr = [1,2,3,4,5,6,7,8,9,10,11,12];**

**let odd = function (a){return a.filter(n => n%2);**

**};**

**console.log(odd(arr));**

##### **Output:**

[ 1, 3, 5, 7, 9, 11 ]

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**Question**

**b.**

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

**Answer :**

const readline = require("readline");

const inp = readline.createInterface({

input: process.stdin

});

const userInput = [];

inp.on("line", (data) => {

userInput.push(data);

});

inp.on("close", () => {

var a = userInput[0];

const toTitleCase = function(phrase){

return phrase.toLowerCase().split(' ').map(word => word.charAt(0).toUpperCase()+ word.slice(1)).join(' ');

};

let result = toTitleCase(a);

console.log(result);

});

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**Question**

**c.**

**Sum of all numbers in an array**

**Answer :**

var arr = [1,2,3,4,5,6,7,8,9,10];

var sum =0;

var total=(a)=>{for(var i = 0; i < a.length;i++)

{

sum =sum + a[i];

}

return sum;

};

console.log(total(arr));

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**Question**

**d**

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

**Answer :**

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**Question**

e.

**Return all the palindromes in an array**

**Answer :**

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**Question**

**f.**

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

**Answer :**

**var Med=(ar1, ar2, n)=>**

**{**

**var i = 0;**

**var j = 0;**

**var 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;**

**}**

**var ar1 = [5, 11, 15, 26, 32];**

**var ar2 = [2, 21, 17, 30, 50];**

**var n1 = ar1.length;**

**var n2 = ar2.length;**

**if (n1 == n2)**

**console.log("Median is "+ Med(ar1, ar2, n1));**

**else**

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

**Output :**

**Median is 19**

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**Question**

**g.**

**Remove duplicates from an array**

**Answer :**

**function uniq(a) {**

**return Array.from(new Set(a));**

**}**

**uniq = a => [...new Set(a)];**

**var arr = ['Apple', 'Apple', 'Banana', 'Mango', 'Strawberry', 'Banana'];**

**console.log('Actual Array : ' + arr);**

**var arr2 = arr.filter(function(item, index) {**

**if (arr.indexOf(item) == index)**

**return item;**

**});**

**console.log('Filtered Array : ' + arr2);**

##### Output:

Actual Array : Apple,Apple,Banana,Mango,Strawberry,Banana

Filtered Array : Apple,Banana,Mango,Strawberry

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**Question**

**h.**

**Rotate an array by k times**

**Answer :**

**var RightRotate=(a, n, k)=>**

**{**

**// If rotation is greater**

**// than size of array**

**k = k % n;**

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

**if (i < k) {**

**// Printing rightmost**

**// kth elements**

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

**}**

**else {**

**// Prints array after**

**// 'k' elements**

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

**}**

**}**

**console.log("<br>");**

**}**

**// Driver code**

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

**let N = Array.length;**

**let K = 2;**

**RightRotate(Array, N, K);**

##### Output:

4 5 1 2 3

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**Question 2**

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

**Answer :**

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**Question 3**

**Do the below programs in arrow functions**

**a.**

**Print odd numbers in an array**

**Answer :**

Using anonymous function

let arr = [1,2,3,4,5,6,7,8,9,10,11,12]

let odds = function{arr.filter(n => n%2)}

console.log(odds)

##### **Output:**

[ 1, 3, 5, 7, 9, 11 ]

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**Question**

**b.**

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

**Answer :**

const readline = require("readline");

const inp = readline.createInterface({

input: process.stdin

});

const userInput = [];

inp.on("line", (data) => {

userInput.push(data);

});

inp.on("close", () => {

var a = userInput[0];

const toTitleCase = function(phrase){

return phrase.toLowerCase().split(' ').map(word => word.charAt(0).toUpperCase()+ word.slice(1)).join(' ');

};

let result = toTitleCase(a);

console.log(result);

});

**Output :**

**Hello Guvi**

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**Question**

**c.**

**Sum of all numbers in an array**

**Answer :**

var arr = [1,2,3,4,5,6,7,8,9,10];

var sum =0;

var total=(a)=>{for(var i = 0; i < a.length;i++)

{

sum =sum + a[i];

}

return sum;

};

console.log(total(arr));

##### Output:

55

**Question**

**d.**

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

**Answer :**

var arr = [1, 3, 2, 5, 10];

var Prime = arr.filter(num => {

for (let i = 2; i < num; i++) {

if (num % i === 0)

return false;

}

return num !== 1;

});

console.log(Prime)

##### Output:

[ 3, 2, 5 ]

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**Question**

**e.**

**Return all the palindromes in an array**

**Answer :**

var arr = ['carecar', 1344, 12321, 'did', 'cannot'];

var cheak = el => {

var str = String(el);

let i = 0;

let j = str.length - 1;

while(i < j) {

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

i++;

j--;

}

else {

return false;

}

}

return true;

};

const find = arr => {

return arr.filter(el => cheak(el));

};

console.log(find(arr));

##### Output:

[ 12321, 'did' ]