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

* + 1. **Print odd numbers in an array.**

**Anonymous Function**

var temp = [];

var oddNum = function(arr)

{

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

{

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

temp.push(arr[i]);

}

return temp;

}

var a = [1,2,3,4,5,6];

console.log(oddNum(a));

**Output: [ '1', '3', '5' ]**

**IIFE Function**

(function foo(arr)

{

var temp =[];

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

{

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

//console.log(arr[i]);

temp.push(arr[i]);

}

console.log(temp);

}

)([1,2,3,4,5,6,7])

**Output: [ 1, 3, 5, 7 ]**

* + 1. **Convert all the strings to title caps in a string array.**

**Anonymous Function**

var stringToCaps = function(str)

{

var step1 = str.toLowerCase().split(" ");

for(var i=0;i<step1.length;i++)

step1[i]=step1[i].charAt(0).toUpperCase() + step1[i].slice(1);

return step1.join(" ");

}

var str = "My NAME is dineshKumar";

console.log(stringToCaps(str));

**Output: My Name Is Dineshkumar**

**IIFE Function:**

(function(str)

{

var step1 = str.toLowerCase().split(" ");

for(var i=0;i<step1.length;i++)

step1[i]=step1[i].charAt(0).toUpperCase() + step1[i].slice(1);

console.log(step1.join(" "));

//return step1.join(" ");

})("My NAME is dineshKumar");

**Output: My Name Is Dineshkumar**

* + 1. **Sum of all numbers in an array.**

**Anonymous Function:**

**var sumArr = function(arr)**

**{**

**var sum =0**

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

**sum=sum+arr[i];**

**return sum;**

**}**

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

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

**Output: 36**

**IIFE Function:**

(function(arr)

{

var sum =0

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

sum=sum+arr[i];

console.log(sum);

//return sum;

})([1,2,3,4,5,6,7,8]);

**Output: 36**

* + 1. **Return all the prime numbers in an array.**

**Anonymous Function:**

var primeNum = function(num)

{

var prime = [];

for(var i=0;i<num.length;i++)

{

var isPrime = true;

for (var j=2;j<num[i];j++)

{

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

{

isPrime = false;

break;

}

}

if(isPrime && num[i]>1)

prime.push(num[i]);

}

return prime;

}

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

console.log(primeNum(num));

**Output: [ 2, 3, 5, 7 ]**

**IIFE Function:**

(function(num)

{

var prime = [];

for(var i=0;i<num.length;i++)

{

var isPrime = true;

for (var j=2;j<num[i];j++)

{

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

{

isPrime = false;

break;

}

}

if(isPrime && num[i]>1)

prime.push(num[i]);

}

console.log(prime);

//return prime;

})([1,2,3,4,5,6,7,8,9,10]);

**Output: [ 2, 3, 5, 7 ]**

* + 1. **Return all the palindromes in an array.**

**Anonymous Function:**

function ispal (x)

{

let org = x;

x = x.split("").reverse().join("");

return x == org;

}

var palString = function (arr,n)

{

let a = [];

for(var i=0;i<n;i++)

{

if(ispal(arr[i]))

a.push(arr[i]);

}

//console.log(a.length);

return a;

}

var arr = ["kayak", "rotator", "ahja", "repaper", "cool"];

n = arr.length;

let s = palString(arr,n);

if(s.length === 0)

console.log("Not a palindrome")

else

console.log(s);

**Output: [ 'kayak', 'rotator', 'repaper']**

**IIFE Function**

function ispal (x)

{

let org = x;

x = x.split("").reverse().join("");

return x == org;

}

var palString = (function (arr)

{

let a = [];

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

{

if(ispal(arr[i]))

a.push(arr[i]);

}

if(a.length === 0)

console.log("Not a palindrome")

else

console.log(a);

//return a;

})(["kayak", "rotator", "ahja", "repaper", "cool"]);

**Output: [ 'kayak', 'rotator', 'repaper' ]**

* + 1. **Return median of two sorted arrays of the same size.**

**Anonymous Function:**

var medianString = function (arr1, arr2)

{

var a = arr1.concat(arr2).sort((a,b) => a-b)

var len = a.length;

// console.log(a);

if(len %2 ===0)

{

var m1 = a[len/2 - 1];

var m2 = a[len/2]

return (m1+m2)/2;

}

else

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

}

var arr1 = [1, 12, 15, 26, 38];

var arr2 = [2, 13, 17, 30, 45];

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

**Output: 16**

**IIFE Function:**

(function (arr1, arr2)

{

var a = arr1.concat(arr2).sort((a,b) => a-b)

var len = a.length;

// console.log(a);

if(len %2 ===0)

{

var m1 = a[len/2 - 1];

var m2 = a[len/2]

//return (m1+m2)/2;

console.log((m1+m2)/2);

}

else

//return "Doesn't work for arrays of unequal size";

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

})([1, 12, 15, 26, 38],[2, 13, 17, 30, 45]);

**Output: 16**

* + 1. **Remove duplicates from an array.**

**Anonymous Function:**

var removedDup = function(arr)

{

var dupArr = [];

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

{

if(!dupArr.includes(arr[i]))

dupArr.push(arr[i]);

}

return dupArr;

}

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

console.log(removedDup(arr));

**Output: [ 1, 2, 3, 4, 5, 6, 7 ]**

**IIFE Function:**

(function(arr)

{

var dupArr = [];

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

{

if(!dupArr.includes(arr[i]))

dupArr.push(arr[i]);

}

console.log(dupArr);

})([1,2,2,3,4,5,5,6,7]);

**Output: [ 1, 2, 3, 4, 5, 6, 7 ]**

* + 1. **Rotate an array by k times.**

**Anonymous Function:**

var rotatedArray = function(arr,k)

{

var n = arr.length;

var z= arr.slice(n-k);

var rotatedArray = z.concat(arr.slice(0,n-k));

return rotatedArray;

}

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

var k = 3;

console.log(rotatedArray(arr,k));

**Output: [ 5, 6, 7, 1, 2, 3, 4 ]**

**IIFE Function:**

(function(arr,k)

{

var n = arr.length;

var z= arr.slice(n-k);

var rotatedArray = z.concat(arr.slice(0,n-k));

console.log(rotatedArray);

})([1,2,3,4,5,6,7],3);

**Output: [ 5, 6, 7, 1, 2, 3, 4 ]**

**Do the below programs in arrow functions.**

**Print odd numbers in an array.**

var oddNum = (arr) => {

var temp =[];

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

{

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

temp.push(arr[i]);

}

return temp;

}

arr = [1,2,3,4,5,6,7]

console.log(oddNum(arr));

**Output: [ 1, 3, 5, 7 ]**

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

var stringToCaps = (str) =>

{

var step1 = str.toLowerCase().split(" ");

for(var i=0;i<step1.length;i++)

step1[i]=step1[i].charAt(0).toUpperCase() + step1[i].slice(1);

return step1.join(" ");

}

var str = "My NAME is dineshKumar";

console.log(stringToCaps(str));

**Output: My Name Is Dineshkumar**

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

var sumArr = (arr) =>

{

var sum =0

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

sum=sum+arr[i];

return sum;

}

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

console.log(sumArr(arr));

**Output: 36**

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

var primeNum = (num) =>

{

var prime = [];

for(var i=0;i<num.length;i++)

{

var isPrime = true;

for (var j=2;j<num[i];j++)

{

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

{

isPrime = false;

break;

}

}

if(isPrime && num[i]>1)

prime.push(num[i]);

}

return prime;

}

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

console.log(primeNum(num));

**Output:** [ 2, 3, 5, 7 ]

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

function ispal (x)

{

let org = x;

x = x.split("").reverse().join("");

return x == org;

}

var palString = (arr,n) =>

{

let a = [];

for(var i=0;i<n;i++)

{

if(ispal(arr[i]))

a.push(arr[i]);

}

//console.log(a.length);

return a;

}

var arr = ["kayak", "rotator", "ahja", "repaper", "cool"];

n = arr.length;

let s = palString(arr,n);

if(s.length === 0)

console.log("Not a palindrome")

else

console.log(s);

**Output: [ 'kayak', 'rotator', 'repaper']**

1. **Practice(submission not needed)** - <https://medium.com/@reach2arunprakash/www-guvi-io-zen-d395deec1373>

1. **Practice(submission not needed)** - <https://medium.com/@reach2arunprakash/guvi-zen-class-javascript-warm-up-programming-problems-15973c74b87f>