**Task 1: Simple Programs to do for variables**

1. Declare four variables without assigning values and print them in console

//solution

var a;

var b;

var c;

var d;

console.log(a);

console.log(b);

console.log(c);

console.log(d);

1. How to get value of the variable myvar as output

//solution

var myvar=1;

console.log(myvar);

1. Declare variables to store your first name, last name, marital status, country and age in multiple lines

//solution

var fisrtName="Neelakandan";

var lastName="C";

var maritalStatus="single";

var country="india";

var age=20;

1. Declare variables to store your first name, last name, marital status, country and age in a single line

//solution

var a=["Neelakandan","c","single","india",20];

1. Declare variables and assign string, boolean, undefined and null data types

var string="I am 25 years old.";

var string1="You are 30 years old.";

var boolean=(string==string1);

var data;

console.log(string);

console.log(boolean);

console.log(data);

console.log()

1. Convert the string to integer

//solution

var str="10";

console.log(parseInt(str));

console.log(Number(str));

console.log(+str);

1. Write 6 statement which provide truthy & falsey values.

//solution

ar str="10";

var str1=10;

var a=(str1==str);

var b=(str===str1);

var c=(str!=10);

var d=(str1!==str1);

var e=(str1==10);

var f=(str!==str1);

console.log(a);

console.log(b);

console.log(c);

console.log(d);

console.log(e);

console.log(f);

Task 2: Simple Programs todo for Operators

1. Square of a number

//solution

var a=5;

var b= a \* a;

console.log(b)

1. Swapping 2 numbers

var a=5;

var b=10;

[a,b]=[b,a];

console.log(a);

console.log(b);

1. Addition of 3 numbers

var a=5;

var b=10;

var c=15;

console.log(a+b+c);

1. Celsius to Fahrenheit conversion

var a=5;

var b= (a \* (9/5) + 32);

console.log(b);

1. Meter to miles

var a=1;

var b= (a/1609);

console.log(b);

1. Pounds to kg

var a=1;

var b= (a/2.205);

console.log(b);

1. Calculate Batting Average

var runs=10000;

var matches=250;

var not\_out=50;

var avg= runs/(matches-not\_out);

console.log(avg);

1. Calculate five test scores and print their average

var a=[150,78,200,120,100];

function aa(arr){

var sum=0;

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

sum +=arr[i];

var avg=sum/arr.length;

}

return avg;

}

console.log(aa(a));

1. Power of any number x ^ y.

var x=5;

var y=3;

console.log(Math.pow(x,y))

1. Calculate Simple Interest

var p=10000;

var t=5;

var r=5;

var interest=(p\*t\*r)/100;

console.log(interest)

1. Calculate area of an equilateral triangle

var a=5;

var A=(Math.sqrt(3)/4) \* (a \* a);

console.log(A)

1. Area Of Isosceles Triangle

var h=5;

var b=3;

var A=(1/2)\*b\*h;

console.log(A)

1. Volume Of Sphere

var r=5;

var v=(4/3)\*3.14\*(Math.pow(r,3));

console.log(v)

1. Volume Of Prism

var b=5;

var h=7;

var v=b\*h;

console.log(v)

1. Find area of a triangle.

var b=7;

var h=5;

var A=(1/2)\*h\*b;

console.log(A)

1. Give the Actual cost and Sold cost, Calculate Discount Of Product

var ac=150;

var sc=140;

var d=ac-sc;

console.log(d)

1. Given their radius of a circle and find its diameter, circumference and area.

var r=10;

var dia= 2 \* r;

var circum= 2 \* 3.14 \* r;

var area=3.14 \* r \* r;

console.log(dia)

console.log(circum)

console.log(area)

1. Given two numbers and perform all arithmetic operations.

var a=10;

var b=5;

console.log(a+b);

console.log(a-b);

console.log(a\*b);

console.log(a/b);

1. Display the asterisk pattern as shown below(No loop needed):

var a='\*\*\*\*\*';

console.log(a);

console.log(a);

console.log(a);

console.log(a);

console.log(a);

1. Calculate electricity bill?  
   For example, a consumer consumes 100 watts per hour daily for one month. Calculate the total energy bill of that consumer if per unit rate is 10?

var cost=(100\*30)\*10;

console.log(cost);

1. Program To Calculate CGPA

var mark=460;

var perc=(460/500)\*100;

var cgpa=perc/9.5;

console.log(cgpa);

Task 3: Simple Programs todo for Condition , Looping and Arrays

1. Write a loop that makes seven calls to console.log to output the following triangle:

var a='#';

for(var i=1;i<=7;i++){

console.log(a.repeat(i))

}

1. Iterate through the string array and print it contents

var strArray= ['<option>Jazz</option>',

'<option>Blues</option>',

'<option>New Age</option>',

'<option>Classical</option>',

'<option>Opera</option>']

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

console.log(strArray[i])

}

1. **Arrays**:

var myarray=[11,22,33,44,55]

write a code to count the elements in the array . Don’t use length property

Declare an empty array;

//solution

i)var myarray=[11,22,33,44,55];

function arraylength(a){

var length=0;

while(a[length]!==undefined){

length ++;

}

return length;

}

console.log(arraylength(myarray))

ii). var a=[];

console.log(a);  
— — — — — — — — — — — — — — -

Create an array called foods holds the names of your top 20 favorite foods, starting with the best food.

let foods=[]

//solution

let foods=["noodles","shawarma","burger","pizza","pepper chilli","parotta","chappathi","non","chicken 65","grill chicken","sandwitch","veg role","puffs","falooda","ice cream","milk shake","cake","biriyani","mushroom fry","gobi chilly"];

— — — — — — — — — — — — — — — -  
Foods variable holds the names of your top 20 favorite foods, starting with the best food. How can you find your fifth favorite food?

let foods=[]

Find the length of your foods array

//solution

i).let foods=["noodles","shawarma","burger","pizza","pepper chilli","parotta","chappathi","non","chicken 65","grill chicken","sandwitch","veg role","puffs","falooda","ice cream","milk shake","cake","biriyani","mushroom fry","gobi chilly"];

console.log(foods[4]);

ii).console.log(foods.length);  
— — — — — — — — — — — — — — — -  
Starting from the existing friends variable below, change the element that is currently “Mari” to “Munnabai”.

//solution

let friends = [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

function dataHandling(input){

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

if(input[i]=="Mari")

input[i]="Munnabai"

}

return input;

}

console.log(dataHandling(friends));

— — — — — — — — — — — — — — — -  
Starting from the friends variable below, Loop and Print the names till you meet CaptianAmerica.

//solution

let friends = [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

function dataHandling(input){

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

if(input[i]=="CaptianAmerica")

return input.slice(0,3);

}}

console.log(dataHandling(friends));

— — — — — — — — — — — — — — — -  
Find the person is ur friend or not.

//solution

let friends = [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

function dataHandling(input, name){

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

if(name==input[i]){

return true;

}else{

return false;

}

}

}

let found = dataHandling(friends,"Jeff");

— — — — — — — — — — — — — — — -  
We have two lists of friends below. Use array methods to combine them into one alphabetically-sorted list.

//solution

var friends1 = [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

var friends2 = [

"Gabbar",

"Rajinikanth",

"Mass",

"Spiderman",

"Jeff",

"ET"

];

function dataHandling(input){

var s="";

for(var i=0;i<friends2.length;i++){

s +=friends2[i] + ",";

}

friends1.push(s);

return friends1.sort();

}

console.log(dataHandling(friends1));

— — — — — — — — — — — — — — — -

1. Get the first item, the middle item and the last item of the array

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

function gfg(){

let f=friends[0];

let m=friends[friends.length/2];

let l=friends[friends.length-1];

console.log(f);

console.log(m);

console.log(l);

}

gfg();

1. Add your name to the end of the friends array, and add another name to beginning.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

friends.push("Neelakandan");

friends.unshift("gokul")

console.log(friends)

1. Add Mr or Ms to the names in the friends array.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

friends[0]="Mr Mari";

friends[1]="Ms MaryJane";

friends[2]="Mr CaptianAmerica";

friends[3]="Mr Munnabai";

friends[4]="Mr Jeff";

friends[5]="Mr AAK chandran";

console.log(friends)

1. Concat all the names the friends array and return as comma “,” seperated string.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

var friends2 = [

"Gabbar",

"Rajinikanth",

"Mass",

"Spiderman",

"Jeff",

"ET"

];

console.log(friends.concat(friends2))

1. Find the friends names who has letter ‘a’ and return the list.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

console.log(friends[5])

1. Find the names and return the list starting with letter M.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

console.log(friends[0],friends[1],friends[3]);

1. Find the name with max characters and return the name.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

var lgth = 0;

var longest;

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

if (friends[i].length > lgth) {

var lgth = friends[i].length;

longest = friends[i];

}

}

console.log(longest);

1. Find the name with min characters and return the name.

var friends= [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

console.log(

friends.reduce(function(a, b) {

return a.length <= b.length ? a : b;

})

)

— — — — — — — — — — — — — — — -

Find the average in the array below.  
Make sure you add only the numbers and do avg.

//solution

const friendsInfo = [6, 12, 'Mari', 1, true, 'Munnabai', '200', 'CaptianAmerica', 8, 10];

var total=friendsInfo[0]+friendsInfo[1]+friendsInfo[3]+friendsInfo[8]+friendsInfo[9];

var length=5;

var avg = total /length;

console.log(avg)

— — — — — — — — — — — — — — — -  
Print the contents of the input variable

//solution

var input = [

["0001", "Roman Alamsyah", "Bandar Lampung", "21/05/1989", "Membaca"],

["0002", "Dika Sembiring", "Medan", "10/10/1992", "Bermain Gitar"],

["0003", "Winona", "Ambon", "25/12/1965", "Memasak"],

["0004", "Bintang Senjaya", "Martapura", "6/4/1970", "Berkebun"]

];

function dataHandling(arr){

for(let i of arr){

for(let j of i){

console.log(j)

}

}

}

console.log(dataHandling(input));

— — — — — — — — — — — — — — — -

**Objects:**

What the output

//solution

error

arun

Add a new key value pair to myobject

//solution

myobject = {1:"one","11":1,"name":"arun"}

myobject["ten"]="ten";

console.log(myobject);

Write out an object literal to represent the data below.

//solution

var obj={

address:"Guvi, Geek, 6, IIT-M RP,Chennai."

};

console.log(obj);

— — — — — — — — — — — — — — — -

How would you represent the following data using a combination of object literals and arrays? (You can describe a strategy without typing or writing out the whole thing.)

//solution

var obj={

address1:"Guvi, Geek, 6, IIT-M RP,Chennai.",

address2:"Amazon, Inc, 31, SP Infocity, Chennai.",

address3:"Google, Alphabet, 34 Amphitheater Parkway, MountainView.",

address4:"Tesla, Inc , 32, 333 Santana Row,San Jose."

};

console.log(obj);