1. To compare two JSON have the same properties without order.

var obj1 = { name: "Person 1", age:5 };

var obj2 = { age:5, name: "Person 1" };

var flag=true;

if(Object.keys(obj1).length==Object.keys(obj2).length){

for(key in obj1) {

if(obj1[key] == obj2[key]) {

continue;

}

else {

flag=false;

break;

}

}

}

else {

flag=false;

}

console.log("is object equal"+" "+flag);

2. Display all the country flags in console

var req = new XMLHttpRequest();

req.open('GET','https://raw.githubusercontent.com/rvsp/restcountries-json-data/master/res-countries.json',true);

req.send();

req.onload=function(){

    var result= JSON.parse(req.response);

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

        console.log(result[i].name+" "+result[i].flag);

    }

}

<!DOCTYPE html>

<html lang="en">

<head>

    <meta charset="UTF-8">

    <meta http-equiv="X-UA-Compatible" content="IE=edge">

    <meta name="viewport" content="width=device-width, initial-scale=1.0">

    <title>Document</title>

</head>

<body>

    <script src = "day4b.js"></script>

</body>

</html>

3. print all countries name, region, sub region and population

var req = new XMLHttpRequest();

req.open('GET','https://raw.githubusercontent.com/rvsp/restcountries-json-data/master/res-countries.json',true);

req.send();

req.onload=function(){

    var result= JSON.parse(req.response);

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

        console.log(result[i].name+" "+result[i].region+" "+result[i].subregion+" "+ result[i].population);

    }

}

<!DOCTYPE html>

<html lang="en">

<head>

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    <meta name="viewport" content="width=device-width, initial-scale=1.0">

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</head>

<body>

    <script src = "day4b.js"></script>

</body>

</html>

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

Task 1: variables

1. Graphical user interface, text, application

Description automatically generated

2. var myvar =1;

Console.log(myvar); // Remove double quotes.

3. var firstname= ‘vaibhav’;

var lastname= ‘chhabra’;

var mstatus= ‘unmarried’;

var country= ‘India’;

var age= 24;

4. var obj= {fname:'vaibhav' ,lname:'chhabra', country:'India', age:24 };

5. var x= 'vaibhav'; // string

var y= true; // boolean

var z= undefined; // undefined

var m = null; // Null

note: datatype of null is object in JS.

6. var x= parseInt("88.9");

var y= Number("88.6790");

var z= +"88.90";

var n= “88” \*1;

7. var x= x>null;// false

var f= f==undefined;// true

var c= null == null;// true

var d= null === undefined; // false

var e= null== undefined;// true

var g= NaN== Infinity;// false

var h = NaN== NaN;//false

**Task 2: operators**

1. var x= userInput[0];

console.log(x\*x); // square of a number

1. var n1= userInput[0];

var n2= userInput[1];

var temp;

temp=n1;

n1 = n2;

n2 = temp;

console.log(n1+ "\n"+ n2); // swap

1. var n1= +userInput[0];

var n2= +userInput[1];

var temp=+userInput[2];

console.log(n1+n2+temp); //sum of 3 numbers

1. var C= +userInput[0];

console.log(C \* 1.8000+ 32.00); // C to F

1. var C= +userInput[0];

console.log(C \*0.00062);// metre to miles

1. var C= +userInput[0];

console.log(C \* 0.45359237 );// pound to kg

1. var runs= +userInput[0];

var matches= +userInput[1];

var notout= +userInput[2];

var a= runs/(matches-notout);

console.log(a);//battling avg

1. var a1= +userInput[0];

var a2= +userInput[1];

var a3= +userInput[2];

var a4= +userInput[3];

var a5= +userInput[4];

var a= (a1+a2+a3+a4+a5)/5;

console.log(a);

1. var x= +userInput[0];//number

var y= +userInput[1];//power

if(y==0){

console.log(1);

}

else{ var a=1

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

a=a\*x;

}

}

console.log(a);

1. var x= parseFloat(userInput[0]);//principle

var y= parseFloat(userInput[1]);//interest rate

var z= parseFloat(userInput[2]);//time

console.log((x\*y\*z)/100);//Simple interest

1. var x= parseFloat(userInput[0]);//side of a triangle

var area= (Math.sqrt(3)/4)\*(x\*x);

console.log(area);

1. var x= parseFloat(userInput[0]);//base of triangle

var y= parseFloat(userInput[1]);//height of triangle

var area= 0.5\*x\*y;

console.log(area);// area

1. var x= parseFloat(userInput[0]);//radius

var vol= (4/3)\*3.14\*x\*x\*x;

console.log(vol);// volume of sphere

1. var l= parseFloat(userInput[0]);//length

var b= parseFloat(userInput[1]);//breadth

var h= parseFloat(userInput[2]);//height

var vol= l\*b\*h;

console.log(vol);// volume of rectangular prism

1. var b= parseFloat(userInput[0]);//breadth

var h= parseFloat(userInput[1]);//height

var area= 0.5\*b\*h;

console.log(area);// area of trialngle

1. var acost= parseFloat(userInput[0]);//actual cost

var scost= parseFloat(userInput[1]);//sold cost

var discount= scost-acost;

console.log(discount);// discount

1. var r= parseFloat(userInput[0]);//radius

var diameter=2\*r;

var cir=2\*3.14\*r;

var area=3.14\*r\*r;

console.log(diameter);

console.log(cir);

console.log(area);

1. var num1= parseFloat(userInput[0]);//number 1

var num2= parseFloat(userInput[1]);//number 2

console.log( num1+num2);//add

console.log( num1-num2);//sub

console.log( num1/num2);//divide

console.log( num1\*num2);//multiply

1. var n= "\*\*\*\*\*";

console.log(n+'\n'+n+'\n'+n+'\n'+n+'\n'+n);

1. var x= userInput[0];//per hour consumption in watts

var y= userInput[1];//unit rate

console.log(((x\*30\*24)/1000)\*7);//BILL

1. var x= parseFloat(userInput[0]);//grade points sub1

var y= parseFloat(userInput[1]);//sub2

var z= parseFloat(userInput[2]);//sub3

var m= parseFloat(userInput[3]);//sub4

var n= parseFloat(userInput[4]);//sub5

console.log((x+y+z+m+n)/5);

**Task 3: Condition,loopings, arrays.**

1. for(var i =0;i<7;i++){

var hash= i+1;

var temp=' ';

for(var j=0;j<hash;j++){

temp=temp+'#'+' ';

}

console.log(temp);

}

2. 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]);

}

**Arrays**

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

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

var count=0;

for(var i in myarray){

count=count+1;

}

console.log(count);

**Empty array:**

Var arr= [];

**Array for top 20 favorite foods:**

let foods =['Dosa','Burger','Salad','Pizza','Pasta','Macroni',

'Hotdog', 'Sandwich', 'RajmaRice','Chilli Potato','Idli','uttapam',

'Dal roti', 'Shahi Paneer','palak Paneer','Curd Rice','Paan','Thukpa',

'Butter Chicken','Veg Briyani'];

**5th fav food**:

console.log(foods[4]);

**length of foods array:**

console.log(foods.length);

change the element that is currently “Mari” to “Munnabai”.

function dataHandling(input){

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

if(input[i] == 'Mari'){

input[i] = 'Munnabai';

}

}

console.log(input);

}

dataHandling(friends);

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

function dataHandling(input){

var arr=[];

for (var i = 0; input[i] !== "CaptianAmerica"; i++) {

arr.push(input[i]);

}

console.log(arr);

}

dataHandling(friends);

Find the person is ur friend or not.

function dataHandling(input, name){

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

if(input[i] !== name){

return "No";

}

else {

return "Yes";

}

}

}

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

console.log(found);

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

var friends1 = [

"Mari",

"MaryJane",

"CaptianAmerica",

"Munnabai",

"Jeff",

"AAK chandran"

];

var friends2 = [

"Gabbar",

"Rajinikanth",

"Mass",

"Spiderman",

"Jeff",

"ET"

];

var friends =[];

function dataHandling(input1, input2){

for(var i=0;i<friends1.length;i++){

friends.push(friends1[i]);

}

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

friends.push(friends2[j]);

}

}

dataHandling(friends1, friends2);

console.log(friends.sort());

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

function dataHandling(input){

var first=0, mid= input.length/2, last= input.length-1;

console.log(input[first]);

console.log(input[mid]);

console.log(input[last]);

}

dataHandling(friends);

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

function dataHandling1(input){

input.push("vaibhav");

console.log(input);

}

dataHandling1(friends);

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

function dataHandling(input){

for(var i =0; i<input.length/2; i++){

input[i]= "Mr."+" "+input[i];

}

for(var j =input.length/2; j<input.length; j++){

input[j]= "Ms."+" "+input[j];

}

console.log(input);

}

dataHandling(friends);

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

function dataHandling(input){

console.log(input.join());

}

dataHandling(friends);

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

function dataHandling1(input){

var list=[];

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

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

if(input[i].charAt(j) == 'a'){

if(input[i] != list[i]){

list.push(input[i]);

}

}

}

}

console.log(list);

}

dataHandling1(friends);

Find the avg length of all the friends names. Get the individual length of the names and do the avg.

function dataHandling1(input){

var temp=0;

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

var length= input[i].length;

temp = temp+length;

}

console.log(temp/input.length);

}

dataHandling1(friends.sort());

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

function dataHandling1(input){

var list=[];

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

if(input[i].charAt(0) == 'M'){

list.push(input[i]);

}

}

console.log(list);

}

dataHandling1(friends.sort());

Find the name with max characters and return the name.

function dataHandling1(input){

var arr =[];

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

arr.push(input[i].length);

}

let max = Math.max(...arr);

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

if(input[j].length == max){

console.log(input[j]);

}

}

}

dataHandling1(friends.sort());

Find the name with min characters and return the name.

function dataHandling1(input){

var arr =[];

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

arr.push(input[i].length);

}

let min = Math.min(...arr);

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

if(input[j].length == min){

console.log(input[j]);

}

}

}

dataHandling1(friends.sort());

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

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

var temp =[];

var sum =0;

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

let type= typeof(friendsInfo[i]);

if(type == "number"){

temp.push(friendsInfo[i]);

}

}

console.log(temp);

for(var j =0; j < temp.length; j++){

sum = sum+temp[j];

}

console.log(sum/temp.length);

Print the contents of the input variable

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(input){

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

console.log(input[i]);

}

}

dataHandling(input);

**Objects:**

**Output: Syntax error: one is not defined**

Add a new key value pair to myobject  
key : ten  
value : ten

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

myobject.ten= "ten";

console.log(myobject);

Write out an object literal:

var obj = {Fname:"Guvi", Sname:"Geek", Batch:6, Loc:"IIT-M RP", State:"Chennai"};

How would you represent the following data using a combination of object literals and arrays?

var obj= {company:['Guvi', 'Amazon', 'Google', 'Tesla'],

business:['Geek', 'Inc', 'Alphabet', 'Inc'],

buildingNum:[6,31,34,32],

Address1:['IIT-M RP', 'Infocity','Amphitheater Parkway','Santana Row'],

State:['Chennai','Chennai','MountainView','San Jose']};