1. How to compare two JSON have the same properties without order?
   1. var obj1 = { name: "Person 1", age:5 };
   2. var obj2 = { age:5, name: "Person 1" };

**Ans. \_isEqual() is a function which we can use to compare two JSON.**

1. Use the rest countries API url -><https://restcountries.eu/rest/v2/all> and display all the country flags in console.

Ans.

var data=JSON.parse(this.response);

for(var i=0;i<250;i++)

{

console.log("Country-",data[i].name," Flag-",data[i].flag);

}

1. Use the same rest countries and print all countries name, region, sub region and population

Ans.

var data=JSON.parse(this.response);

for(var i=0;i<250;i++)

{

console.log("Country-",data[i].name,"  Region-",data[i].region," Sub Region-",data[i].subregion,”Population-“data[i].population);

}

1. <https://medium.com/@reach2arunprakash/www-guvi-io-zen-d395deec1373>

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

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

Ans. var a,b,c,d;

console.log(a,b,c,d);

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

var myvar= 1;  
 console.log("myvar");

Ans. console.log(myvar);

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

Ans.

const information=

{

firstName:”seema”,

lastName:”Panwar”,

maritalStatus:”married”,

country:”India”,

“age”:”34”

};

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

Ans.

var information=[“seema”,”panwar”,”married”,India”,”34”];

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

Ans. var a;

a=”string”

a= true;

a=undefined;

a=null;

I am 25 years old. You are 30 years old.

6. Convert the string to integer

* parseInt()
* Number()
* Plus sign(+)

Ans.

var result=parseInt(“I am 25 years old. You are 30 years old.”);

var result=+(“I am 25 years old. You are 30 years old.”);

var result=number(“I am 25 years old. You are 30 years old.”);

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

Ans.

* 1. if –else statement
  2. ==
  3. ===
  4. &&
  5. Or
  6. !=

— — — — — — — — — — — — — — — — — — — — — — — — -

Task 2: Simple Programs to do for Operators

1. **Square of a number**

Ans. var a=6;

console.log(a\*a);

1. **Swapping 2 numbers**

Ans. var a=6;

var b=5;

a=a+b;

b=a-b;

a=a-b;

console.log(“a is-“,a, “b is-“,b);

1. **Addition of 3 numbers**

Ans. var a=9;

var b=8;

var c=7;

console.log(a+b+c);

1. Celsius to Fahrenheit conversion

Ans.

var c=parseInt(userInput);

var f=(((1.8\*c)+32).toFixed(2));

console.log(f);

1. Meter to miles

Ans.

var meter= 100000;

var miles= ((meter/1600).toFixed(2));

console.log(miles);

1. Pounds to kg

Ans.

var pound;

console.log((parseFloat(pound)\*0.453592).toFixed(2));

1. Calculate Batting Average

Ans. var batting=[];

var total=0,n;

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

{

total=total+batting[i];

}

var avg=total/n;

console.log(avg);

1. Calculate five test scores and print their average

Ans.

var test1,test2,test3,test4,test5;

var total;

var avg=(test1+test2+test3+test4+test5)/5

console.log(avg);

1. Power of any number x ^ y.

Ans. Console.log((parseInt(x)) \*\*\*(parseInt(y)));

1. Calculate Simple Interest

Ans.

var p=1000;

var r=8;

var t= 12;

console.log(“simple interest is:”,((p\*r\*t)/100).tofixed(2)));

1. Calculate area of an equilateral triangle

Ans.

var a;

var area = ( 1.73 \* a\*a) / 4

console.log(area);

1. Area of Isosceles Triangle

Ans.

var b,h;

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

console.log(area);

1. Volume Of Sphere

Ans.

var radius;

console.log((3/4)\*3.14\*radius\*radius\*radius);

1. Volume of Prism

Ans.

var base, height;

console.log(“volume of prism”, base\*hieght);

1. Find area of a triangle.

Ans.

var b,h;

console.log(“Area of triangle”,( b\*h)/2);

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

Ans.

var ac\_cost,sold\_cost;

var discount=(ac\_cost-sold\_cost)/ac\_cost;

console.log(discount):

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

var r;

var area=3.14\*r\*r;

var diameter=2\*r;

var circum=2\*3.14.r;

console.log(area,diameter,circum);

1. Given two numbers and perform all arithmetic operations.

Ans.

var a,b;

console.log(“a+b”,a+b);

console.log(“a\*b”,a\*b);

console.log(“a-b”,a-b);

console.log(“a/b”,a/b);

console.log(“a%b”,a%b);

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

Ans

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

console.log("\*\*\*\*\*");

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?

Ans.

var consume;

consume=100\*24\*30;

console.log(“Total energy bill”,consume\*10);

1. Program To Calculate CGPA

Ans.

var total\_marks;//total marks in five subjects

var CGPA = (total\_marks)/(5.0)

var CGPAper = 9.5 \* (CGPA)

console.log(CGPAper);

Task 3: Simple Programs to do for Condition ,

Looping and Arrays

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

#  
##  
###  
####  
#####  
######  
#######

Ans.

var i, j;

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

{

for(j=1; j<=i; j++)

{

document.write(“#”);

}

document.write(“<br/>”);

}

2. 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>"]

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

let foods=[]

— — — — — — — — — — — — — — — -  
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  
— — — — — — — — — — — — — — — -  
Starting from the existing friends variable below, change the element that is currently “Mari” to “Munnabai”.

let friends = [  
“Mari”,  
“MaryJane”,  
“CaptianAmerica”,  
“Munnabai”,  
“Jeff”,  
“AAK chandran”  
];

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

dataHandling(friends);

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

const friends = [  
“Mari”,  
“MaryJane”,  
“CaptianAmerica”,  
“Munnabai”,  
“Jeff”,  
“AAK chandran”  
];

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

dataHandling(friends);

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

const friends = [  
“Mari”,  
“MaryJane”,  
“CaptianAmerica”,  
“Munnabai”,  
“Jeff”,  
“AAK chandran”  
];

function dataHandling(input, name){  
for (var i = 0; i < input.length; i++) {  
  
}  
}

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

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”  
];

function dataHandling(input){  
//Your code goes here  
}

dataHandling(friends);

— — — — — — — — — — — — — — — -

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

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

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

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

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

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

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

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

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

— — — — — — — — — — — — — — — -

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];

— — — — — — — — — — — — — — — -  
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++) {  
//Your code goes here

}  
}

dataHandling(input);

— — — — — — — — — — — — — — — -

**Objects:**

What the output

myobject = {1:one,”11":1,”name”:”arun”}console.log(myobject.11);   
console.log(myobject.name);

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

myobject = {1:one,”11":1,”name”:”arun”}//your code goes hereconsole.log(myobject);{"1":"one","11":1,"name":"arun","ten":"ten"} // Quotes might not get displayed that fine.

Write out an object literal to represent the data below.

Guvi, Geek, 6, IIT-M RP,Chennai.

— — — — — — — — — — — — — — — -

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.)

Guvi, Geek, 6, IIT-M RP,Chennai.  
Amazon, Inc, 31, SP Infocity, Chennai.  
Google, Alphabet, 34 Amphitheater Parkway, MountainView.  
Tesla, Inc , 32, 333 Santana Row,San Jose.