**Zen Task-4 (RM-4)**

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" };
2. Use the rest countries API url -><https://restcountries.eu/rest/v2/all> and display all the country flags in console
3. Use the same rest countries and print all countries name, region, sub region and population
4. <https://medium.com/@reach2arunprakash/www-guvi-io-zen-d395deec1373>

**1.Solution:**

var obj1 = {"name":"Person1","age":"5"};

var obj2 = {"age":"5","name":"Person1"};

var flag=true;

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

for(var key in obj1){

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

else{

flag=false;

}

}

}

console.log("objects are same: "+flag);

**2.Solution:**

var request =new XMLHttpRequest();

request.open('GET','https://restcountries.eu/rest/v2/all',true);

request.send();

request.onload=function(){

 var data=JSON.parse(this.response);

console.log(data);

for (let i = 0; i<data.length; i++){

console.log(data[i].flag);

}}

**3.Solution:**

var request =new XMLHttpRequest();

request.open('GET','https://restcountries.eu/rest/v2/all',true);

request.send();

request.onload=function(){

 var data=JSON.parse(this.response);

console.log(data);

for (let i = 0; i<data.length; i++){

console.log(data[i].name, data[i].region, data[i].subregion,data[i].population);

}}

**4.Solution:**

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

Solution:

var a;

var b;

var c;

var d;

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

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

Solution:

Console.log(myvar);

3. declare variables to store your first name last name martial status country and age in multiple lines

Solution:

Var a=”first name”;

Var b=”last name”

Var c=”martial status”;

Var d=”country”;

Var e=”age”;

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

Solution:

var a=["first name","last name","martial status","country","age"];

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

Solution:

Var a=”string”;  
var b=true;

Var c;

Var d=null;

6. Convert the string to integer

Solution:parseInt()

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

for (let line = "#"; line.length <= 7; line += "#")

console.log(line);

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

|  |  |  |
| --- | --- | --- |
| **Values** | **Truthy** | **Falsey** |
| 1==’1’: | True | X |
| 1==[1]; | True | X |
| ‘1’==[1]; | True | X |
| 1===’1’: | X | False |
| 1===[1]; | X | False |
| ‘1’===[1]; | X | false |

# Task 2: Simple Programs to do for Operators

1. Square of a number

Solution:

var a=2;

var sq=a\*a;

1. Swapping 2 numbers

Solution:

var a=5;

var b=6;

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

1. Addition of 3 numbers

Solution:

Var add=[a+b+c];

1. Celsius to Fahrenheit conversion

Solution:

var f = (c\*9/5+32);

1. Meter to miles

Solution:

Var miles=mtr\*0.00062137;

1. Pounds to kg

Solution:

Var kg=pounds\* 0.453592

1. Calculate Batting Average

Solution:

var runs=1000;

var matches=250;

var notouts=50;

console.log((runs)/(matches-notouts));

1. Calculate five test scores and print their average

Solution:

Var sum=a+b+c+d+e;

Var avg=(sum/5);

1. Power of any number x ^ y.

Solution:

Var power=Math.pow(x,y);

1. Calculate Simple Interest

Solution:

Var SI=p\*r\*t;

1. Calculate area of an equilateral triangle

Solution:

var eqtriangle = (1/4)\*(Math.sqrt(3))\*Math.pow(a,2);

1. Area Of Isosceles Triangle

Solution:

Var istriangle=(b\*h)/2;

1. Volume Of Sphere

Solution:

Var vsphere=((4/3)\*Math.PI\*Math.pow(r,3));

1. Volume Of Prism

Solution:

Var vprism=B\*h; //(B=A=l\*w)

1. Find area of a triangle.

Solution:

Var at=l\*b;

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

Solution:

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

Solution:

Var area=Math.PI\*Math.pow(r,2);

1. Given two numbers and perform all arithmetic operations.

Solution:

Var add=a+a;

Var sub=a-a;

Var mul=a\*a;

Var div=a/a;

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

Solution:

Console.log(\*\*\*\*\*); //Print 5times.

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?

Solution:

//1unit=1KWh

var KWh=(100/1000)\*24\*30;

var bill=10\*KWh;

console.log(bill); //Rs.720

# 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:

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

**Solution:**

for (let line = "#"; line.length <= 7; line=line+ "#");

console.log(line);

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>"];

**Solution:**

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

console.log(strArray[i]);}

**Arrays**:

1. 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:**

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

function addValue(myarray, value) {

return myarray.push(value);

}

console.log(addValue([11,22,33,44],55));

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

let foods=[]

**Solution:**

console.log(foods[4]);

console.log(foods.length);

3. 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"];

**Solution:**

friends[0]=friends[3];

console.log(friends);

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

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

**Solution:**

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

if(friends[i]==friends[2])

return;

console.log(friends[i]);

}