

Day4

Saturday, 7 August 2021

3:17 PM

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
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-->*// How 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 obj1 = { name: "Person 1", age:5 };`

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

`console.log(JSON.stringify(obj1)===JSON.stringify(obj2));`

2-->Use the rest countries API url -> <https://restcountries.eu/rest/v2/all> and display all the countries

`var req = new XMLHttpRequest();`

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

`req.send();`

`req.onload=function() {`

`var data =JSON.parse(this.response);`

`// console.log(data[0].region);`

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

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

`}`

`}`

flags in console

ties without

obj2));

country flags in console

l',true);

3-->Use the same rest countries and print all countries name, region, sub region and population

```
var req = new XMLHttpRequest();
req.open('GET', 'https://restcountries.eu/rest/v2/all');
req.send();
req.onload=function() {
var data =JSON.parse(this.response);
// console.log(data);
for(var i=0; i<data.length; i++){
console.log(data[i].name+" "+data[i].region+"
"+data[i].subregion+" "+data[i].population);
}
// var s = data.map((ele)=>{
// console.log("hi")
// //return (ele.population)
// })
// let sum = s.reduce(function (accumulator, current) {
// return accumulator + current;
// });
// console.log(sum);
}
```

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

Task 1: Simple Programs todo for variables

1. *Declare four variables without assigning values and print*

```
var a;
var b;
var c;
var d;
console.log(a);
```

on

```
l',true);
```

```
nt) {
```

them in console

```
console.log(b);  
console.log(c);  
console.log(d);  
// undefined  
// undefined  
// undefined  
// undefined
```

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

```
var myvar= 1;
```

```
console.log("myvar");
```

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

```
var firstName;  
var lastName;  
var maritalstatus;  
var country;  
var age;
```

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

```
var firstName,lastName,maritalstatus,country,age;
```

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

```
var str="";
```

al status, country

al status, country

country, age;

null data types

```

var str = ' ';
console.log(typeof(str));
var bool=true;
console.log(typeof(bool));
var und;
console.log(typeof(und));
var no=null;
console.log(no);

```

6.

. Convert the string to integer

parseInt()

Number()

Plus sign(+)

```

var i=parseInt("200");
console.log(typeof(i));
var x=parseInt("200");
Number(x);
console.log(typeof(x));
var z=parseInt("200");
+z;
console.log(typeof(z));

```

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

// all true

1 == '1';

1 == [1];

'1' == [1];

// all false

1 === '1';

1 === [1];

'1' === [1];

The following values are **always falsy**:

- false
- 0 (zero)
- " or "" (empty string)
- null
- undefined
- NaN

Everything else is **truthy**. That includes:

- '0' (a string containing a single zero)
- 'false' (a string containing the text "false")
- [] (an empty array)
- {} (an empty object)
- function(){} (an "empty" function)

4-->

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

```
// Solving problems using array functions on rest of
data. using index.html and script.js file (using rest
api)
// 1.- Get all the countries from Asia continent /r
Filter function
// 2. - Get all the countries with population of le
lacs using Filter function
// 3. - Print the country which use US Dollars (USD
// 4.- print the sum of the total population of the
using reduce function

// var req = new XMLHttpRequest();
// req.open('GET','https://restcountries.eu/rest/v2
// req.send();
// req.onload=function() {
// var data =JSON.parse(this.response);
```

countries
est countries
region using
ess than 2
)as currency.
e countries by
2/all',true);

```
// // console.log(data);
// for(var i=0; i<data.length; i++){
// console.log(data[i].name+" "+data[i].region+"
// "+data[i].subregion+" "+data[i].population);
// }
// var s = data.map((ele)=>{
// console.log("hi")
// //return (ele.population)
// })
// let sum = s.reduce(function (accumulator, current
// return accumulator + current;
// });
// console.log(sum);
//}
//var result = data.filter((ele)=>data[i].region==
//console.log(result);
// var a;
// var b;
// var c;
// var d;
// console.log(a);
// console.log(b);
// console.log(c);
// console.log(d);
// // undefined
// // // undefined
// // // undefined
// // // undefined
// var firstName;
// var lastName;
// var maritalstatus;
// var country;
// var age;
// var firstName,lastName,maritalstatus,country,age
```

```
nt) {
```

```
= 'Asia' );
```

```
;
```

```
// var str="";
// console.log(typeof(str));
// var bool=true;
// console.log(typeof(bool));
// var und;
// console.log(typeof(und));
// var no=null;
// console.log(no);
```

```
// var i=parseInt("200");
// console.log(typeof(i));
// var x=parseInt("200");
// Number(x);
// console.log(typeof(x));
// var z=parseInt("200");
// +z;
// console.log(typeof(z));
```

```
// console.log(data);
// var result = data.filter((ele)=>ele.region==="Asia");
// var population =data.filter((ele)=>ele.population>1000000);
// var currency =data.filter((ele)=>{
//   for(let i in ele.currencies){
//     if(ele.currencies[i].code==='USD'){
//       return true;
//     }
//   }
// });
// console.log(result);
// console.log(population);
// console.log(currency);
// var s = data.map((ele)=>{
//   console.log("hi")
//   //return (ele.population)
```

```
sia");  
on<900000);
```

```

// })
// let sum = s.reduce(function (accumulator, current
// return accumulator + current;
// });
// console.log(sum);
// Task 2: Simple Programs todo for Operators
// Square of a number
// var a=5;
// console.log(a*a);
// Swapping 2 numbers
// var a=10;
// var b=20;
// [a,b]=[b,a];
// console.log(a);
// console.log(b);

// Addition of 3 numbers
// var a=10;
// var b=20;
// var c=30;
// console.log(a+b+c);
// Celsius to Fahrenheit conversion
// function cToF(celsius)
// {
//   var cTemp = celsius;
//   var cToFahr = cTemp * 9 / 5 + 32;
//   var message = cTemp+'\xB0C is ' + cToFahr + ' \xB0F';
//   console.log(message);
// }
// function fToC(fahrenheit)
// {
//   var fTemp = fahrenheit;
//   var fToCel = (fTemp - 32) * 5 / 9;
//   var message = fTemp+'\xB0F is ' + fToCel + ' \xB0C';
//   console.log(message);
// }

```

nt) {

kB0F.';

0C.';


```

// }
// cToF(60);
// fToC(45);
// Meter to miles
// function getMiles(i) {
// return i*0.000621371192;
// }
// function getMeters(i) {
// return i*1609.344;
// }
// Pounds to kg
// function weightConverter(valNum) {
// console.log(valNum/2.2046);
// }
// Calculate Batting Average

// function averageRuns(runs, matches, notout)
// {
// // Calculate number of
// // dismissals
// let out1;
// out1 = matches - notout;
// // Check for 0 times out
// if (out1 == 0)
// return -1;
// // Calculate batting average
// let avg = parseInt((runs) / out1, 10);
// return avg;
// }
// // Driver code
// let runs = 10000;
// let matches = 250;
// let notout = 50;
// let avg = averageRuns(runs, matches, notout);
// if (avg == -1)
// document.write("NA").

```



```

// document.write( NA ),
// else
// document.write(avg);
// Calculate five test scores and print their average
// var a=54;
// var b=87;
// var c=89;
// var d=90;
// var e=50;
// var avg=0;
// avg =(a+b+c+d+e)/5;
// Power of any number x ^ y.
//x**y;
// Calculate Simple Interest
// var p,t,r,si,ci;
// si = parseInt((p*t*r)/100 );
// var amount = p*Math.pow((1 +r/100),t );
// ci = amount-p;
// Calculate area of an equilateral triangle
// var a = 5f ;
// var area = ( 1.73 * a*a) / 4 ;
// console.log("Area of Equilateral Triangle is:"+a);
// Area Of Isosceles Triangle
// function area( b, h)
// {
// // return area
// return (1 * b * h) / 2;
// }
// Find area of a triangle.
// const baseValue = prompt('Enter the base of a triangle');
// const heightValue = prompt('Enter the height of the triangle');
// // calculate the area
// const areaValue = (baseValue * heightValue) / 2;
// console.log(
// `The area of the triangle is ${areaValue}`

```

age

area);

triangle: ');
a triangle:

,

```

// );
// Give the Actual cost and Sold cost, Calculate Discount
Product
// getPrice = function() {
// var numVal1 = Number(document.getElementById("p
// var numVal2 =
Number(document.getElementById("discount").value) /
// var totalValue = numVal1 - (numVal1 * numVal2)
// document.getElementById("total").value =
totalValue.toFixed(2);
// }
// Display the asterisk pattern as shown below(No l
// *****
// *****
// *****
// *****
// *****
// console.log("*****");
// console.log("*****");
// console.log("*****");
// console.log("*****");
// console.log("*****");

// Calculate electricity bill?
// For example, a consumer consumes 100 watts per h
one month. Calculate the total energy bill of that
per unit rate is 10?

/*Date.prototype.monthDays= function(){
var d= new Date(this.getFullYear(), this.getMonth())
return d.getDate();
}
function getSlab(sDate,eDate) {
var slab = 0;
if(sDate.getMonth() === eDate.getMonth()) {

```

Discount Of

rice").value);

/ 100;

Loop needed):

*hour daily for
consumer if*

+1, 0);

... ..

```

slab += (eDate.getDate()+1 - sDate.getDate())/sDate
}
else {
slab += (sDate.monthDays()+1-sDate.getDate())/sDate
slab += eDate.getDate()/eDate.monthDays();
}
console.log(slab);
return slab;
}
function unitsPrice(units,slab) {
var pay = 0;
if(units < 0) {
return pay;
}
console.log(units+" "+pay);
if(units === 0) {
return pay;
}
if(units > 1200) {
pay += ((units-1200)*slab)*8.75;
units = 1200;
return pay+unitsPrice(units,slab);
}
else if(units > 800) {
pay += ((units - 800)*slab)*8.10;
units = 800;
return pay+unitsPrice(units,slab);
}
else if(units > 400) {
pay += ((units-400)*slab)*7.30;
units = 400;
return pay+unitsPrice(units,slab);
}
else if(units > 200) {
pay += ((units-200)*slab)*5.95;
units = 200;
}
}

```

```
e.monthDays();
```

```
e.monthDays();
```



```

units = 200;
return pay+unitsPrice(units,slab);
}
else {
pay+= ((units)*slab)*4.00;
units = 0;
return pay+unitsPrice(units,slab);
}
}
function calcBill(f) {
var units = parseFloat(f.curr.value) - parseFloat(f.tot.value);
units = parseInt(units);
startDate = new Date(f.startDate.value);
endDate = new Date(f.endDate.value);
console.log(startDate);
console.log(endDate);
var bill = 0;
var slab = getSlab(startDate,endDate)
//FIXED CHARGES with 8% surcharge
if(f.sancLoad.value === "2 kW") {
bill += 40*slab*1.08;
}
if(f.sancLoad.value === ">2-5 kW") {
bill += 100*slab*1.08;
}
bill += unitsPrice(units,slab);
bill = bill*1.06; //PPAC charges 6%
bill = bill*1.08; //8% Surcharge 8%
bill = bill*1.05 //Electriciy Tax 5%
bill = (bill).toFixed(2);
if(!units) {
$("#change").empty().html("Wrong Input");
return;
}
$("#change").empty().html("&#8377;" + bill + " (incl. tax)");
var scrollTop = $("#box").offset().top;

```

```
f.prev.value);
```

```
taxes)");
```

```
var scrollTopPos = $( "#box" ).scrollTop().top,  
$(window).scrollTop(scrollPos);  
}*/
```

```
// Program To Calculate CGPA  
// var English, Hindi, Maths, Science, SocialStudy,  
CGPAper ;  
// English = 9.1;  
// Hindi = 8.5;  
// Maths = 9.5;  
// Science =9.6;  
// SocialStudy = 8.6;  
// CGPA = (9.1+8.5+9.5+9.6+8.6)/(5.0);  
// CGPAper = (parseFloat)(9.5 * (CGPA));  
// Console.log("CGPA percentage is:"+CGPAper);
```

CGPA,