Task-GUVI

Playing with JSON object’s Values:

1. Add height and weight to Fluffy :

**var cat = {  
 name: ‘Fluffy’,**

**height: 2.5,**

**weight: 10  
 activities: [‘play’, ‘eat cat food’],  
 catFriends: [  
 {  
 name: ‘bar’,  
 activities: [‘be grumpy’, ‘eat bread omblet’],  
 weight: 8,  
 furcolor: ‘white’  
 },   
 {  
 name: ‘foo’,  
 activities: [‘sleep’, ‘pre-sleep naps’],  
 weight: 3  
 }  
 ]  
}**

**console.log(cat);**

2. Fluffy name is spelled wrongly. Update it to Fluffyy:

**Var cat = {  
 name: “Fluffy”,**

**height: 2.5,**

**weight: 10  
 activities: [“play”, “eat cat food”],  
 catFriends: [  
 {  
 name: “bar”,  
 activities: [“be grumpy”, “eat bread omblet”],  
 weight: 8,  
 furcolor: “white”  
 },   
 {  
 name: “foo”,  
 activities: [“sleep”, “pre-sleep naps”],  
 weight: 3  
 }  
 ]  
}**

**Cat.name: “Fluffyy”;**

**console.log(cat);**

3. List all the activities of Fluffyy’s catFriends:

**var cat = {  
 name: ‘Fluffy’,  
 activities: [‘play’, ‘eat cat food’],  
 catFriends: [  
 {  
 name: ‘bar’,  
 activities: [‘be grumpy’, ‘eat bread omblet’],  
 weight: 8,  
 furcolor: ‘white’  
 },   
 {  
 name: ‘foo’,  
 activities: [‘sleep’, ‘pre-sleep naps’],  
 weight: 3  
 }  
 ]  
 }**

**console.log(cat.catFriends[0].activities);**

**console.log(cat.catFriends[1].activities);**

4. Print the catFriends names:

**var cat = {  
 name: ”Fluffy”,  
 activities: [“play”, “eat cat food”],  
 catFriends: [  
 {  
 name: “bar”,  
 activities: [“be grumpy”, “eat bread omblet”],  
 weight: 8,  
 furcolor: “white”  
 },   
 {  
 name: “foo”,  
 activities: [“sleep”, “pre-sleep naps”],  
 weight: 3  
 }  
 ]  
 }**

**console.log(cat.catFriends[0].name +","+ cat.catFriends[1].name);**

5. Print the total weight of catFriends:

**var cat = {  
 name: ”Fluffy”,  
 activities: [“play”, “eat cat food”],  
 catFriends: [  
 {  
 name: “bar”,  
 activities: [“be grumpy”, “eat bread omblet”],  
 weight: 8,  
 furcolor: “white”  
 },   
 {  
 name: “foo”,  
 activities: [“sleep”, “pre-sleep naps”],  
 weight: 3  
 }  
 ]  
 }**

**console.log(cat.catFriends[0].weight+cat.catFriends[1].weight);**

6. Print the total activities of all cats:

**var cat = {  
 name: ”Fluffy”,  
 activities: [“play”, “eat cat food”],  
 catFriends: [  
 {  
 name: “bar”,  
 activities: [“be grumpy”, “eat bread omblet”],  
 weight: 8,  
 furcolor: “white”  
 },   
 {  
 name: “foo”,  
 activities: [“sleep”, “pre-sleep naps”],  
 weight: 3  
 }  
 ]  
 }**

**var count = Object.keys(cat.activities).length;**

**var count1 = Object.keys(cat.catFriends[0].activities).length;**

**var count2 = Object.keys(cat.catFriends[1].activities).length;**

**console.log(count+count1+count2);**

7. Add 2 more activities to bar & foo cats:

**var cat = {  
 name: ”Fluffy”,  
 activities: [“play”, “eat cat food”],  
 catFriends: [  
 {  
 name: “bar”,  
 activities: [“be grumpy”, “eat bread omblet”],  
 weight: 8,  
 furcolor: “white”  
 },   
 {  
 name: “foo”,  
 activities: [“sleep”, “pre-sleep naps”],  
 weight: 3  
 }  
 ]  
 }**

**var cats = cat.catFriends[0].activities+","+"eat fish"+","+"disobedient";**

**var cats1 =cat.catFriends[1].activities+","+"plays well"+","+"naughty";**

8. Update the fur color of bar:

**var cat = {  
 name: ”Fluffy”,  
 activities: [“play”, “eat cat food”],  
 catFriends: [  
 {  
 name: “bar”,  
 activities: [“be grumpy”, “eat bread omblet”],  
 weight: 8,  
 furcolor: “white”  
 },   
 {  
 name: “foo”,  
 activities: [“sleep”, “pre-sleep naps”],  
 weight: 3  
 }  
 ]  
 }**

**var update = cat.catFriends[0].furcolor="Black";**

**Iterating with JSON object’s Values**

9. Loop over the accidents array. Change atFaultForAccident from true to false:

**var myCar = {**

**make: "Bugatti",**

**model: "Bugatti La Voiture Noire",**

**year: 2019,**

**accidents: [**

**{**

**date: "3/15/2019",**

**damage\_points: 5000,**

**atFaultForAccident: true**

**},**

**{**

**date: "7/4/2022",**

**damage\_points: 2200,**

**atFaultForAccident: true**

**},**

**{**

**date: "6/22/2021",**

**damage\_points: "7900",**

**atFaultForAccident: true**

**}**

**]**

**}**

**f**or(var i=0;i<myCar.accidents.length;i++){  
 myCar.accidents[i].atFaultForAccident=false  
 }

10. Print the dated of my accidents:

**var myCar = {**

**make: "Bugatti",**

**model: "Bugatti La Voiture Noire",**

**year: 2019,**

**accidents: [**

**{**

**date: "3/15/2019",**

**damage\_points: 5000,**

**atFaultForAccident: true**

**},**

**{**

**date: "7/4/2022",**

**damage\_points: 2200,**

**atFaultForAccident: true**

**},**

**{**

**date: "6/22/2021",**

**damage\_points: "7900",**

**atFaultForAccident: true**

**}**

**]**

**}**

**console.log(myCar.accidents[0].date+","+myCar.accidents[1].date+","+myCar.accidents[2].date)**

**11.** Write a function “fromListToObject” which takes in an array of arrays, and returns an object with each pair of elements in the array as a key-value pair:

**var array = [['make', 'Ford'], ['model', 'Mustang'], ['year', 1964]]**

**function fromListToObject(array) {**

**var object = {}**

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

**object[array[i][0]] = array[i][1];**

**}**

**return object**

**}**

**console.log(fromListToObject(array));**

12. Write a function ‘transformFirstAndLast’ that takes in an array, and returns an object with:  
1) the first element of the array as the object’s key, and  
2) the last element of the array as that key’s value.

**var array = ["GUVI", "I", "am", "Geek"];**

**function transformFirstAndLast(array) {**

**var object = {}**

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

**object[array[0]] = array[3];**

**}**

**return object;**

**}**

**console.log(transformFirstAndLast(array))**

13. Write a function called “printAllKeys” which returns an newArray of all the input object’s keys:

const object1 ={name : 'RajiniKanth', age : 25, hasPets : true}

function printAllKeys(obj){

return obj;

}

console.log(Object.keys(object1));

**14.** Write a function called “convertObjectToList” which converts an object literal into an array of arrays:

**var obj = {name: "ISRO", age: 35, role: "Scientist"};**

**function convertListToObject(obj) {**

**return Object.keys(obj).map(e => [e, obj[e]])**

**}**

**console.log(convertListToObject(obj))**

**15.** Write a function called “transformGeekData” that transforms some set of data from one format to another:

**var array = [[["firstName", "Vasanth"], ["lastName", "Raja"], ["age", 24], ["role", "JSWizard"]], [["firstName", "Sri"], ["lastName", "Devi"], ["age", 28], ["role", "Coder"]]];**

**function transformEmployeeData(array) {**

**var tranformEmployeeList = [];**

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

**var obj={}**

**var dataArray=array[i];**

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

**obj[dataArray[j][0]] = dataArray[j][1];**

**}**

**tranformEmployeeList.push(obj)**

**}**

**return tranformEmployeeList**

**}**

**console.log(transformEmployeeData(array))**

16. Write a function to return the list of characters below 20 age:

**var students = [{**

**name: "SiddharthAbhimanyu", age: 21}, { name: "Malar", age: 25},**

**{name: "Maari",age: 18},{name: "Bhallala Deva",age: 17}**

**{name: "Baahubali",age: 16},{name: "AAKchandran",age: 23}, {name:"Gabbar**

**Singh",age: 33},{name: "Mogambo",age: 53},**

**{name: "Munnabhai",age: 40},{name: "SherKhan",age: 20},**

**{name: "Chulbul Pandey",age: 19},{name: "Anthony",age: 28},**

**{name: "Devdas",age: 56}]**

**var res = students.filter((ele)=>ele.age<20)**

**.map((ele)=>ele.name)**

**console.log(res)**

17. Write an “assertObjectsEqual” function from scratch.  
Assume that the objects in question contain only scalar values (i.e., simple values like strings or numbers).  
It is OK to use JSON.stringify().

**var expected = {foo: 6, bar: 5};**

**var actual = {foo: 5, bar: 6};**

**assertObjectsEqual(actual,expected,'detects that two objects are equal')**

**function assertObjectsEqual(actual, expected,testName) {**

**var actual1 = JSON.stringify(actual);**

**var expected1 = JSON.stringify(expected);**

**if(actual1 !== expected1) {**

**console.log('FAILED [' + testName + '] Expected "' + expected + '", but got "' + actual + '"');**

**}**

**else{**

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

**}**

**}**