**Problem 0: Part A**

**Playing with JSON object’s Values**

Fluffy sorry, Fluffyy is my fav cat and it has 2 catFriends  
Write a code to get the below details of Fluffyy so that  
I can take him to vet.

**Object:**

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

}

]

};

**//1.Add height and weight to Fluffy**

**Solution::**

cat.weight = 6;

cat.height = 2;

**//2.Fluffy name is spelled wrongly. Update it to Fluffyy**

**Solution::**

cat.name = "Fluffyy";

**//3.List all the activities of Fluffyy’s catFriends.**

**Solution::**

let arr = cat.catFriends;

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

{

let temp = arr[i].activities;

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

{

Console.log(temp[j]);

}

}

**//4.Print the catFriends names.**

**Solution::**

for(var i=0;i<cat.catFriends.length;i++)

{

console.log (cat.catFriends[i].name);

}

**//5.Print the total weight of catFriends**

**Solution::**

let weight = 0;

for(var i=0;i<cat.catFriends.length;i++)

{

weight += cat.catFriends[i].weight;

}

console.log(weight);

**//6.Print the total activities of all cats**

**Solution::**

let arr = [];

arr.push(cat.activities,cat.catFriends[0].activities,cat.catFriends[1].activities);

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

{

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

{

console.log(arr[i][j]);

}

}

**//7.Add 2 more activities to bar & foo cats**

**Solution::**

cat.catFriends[0].activities.push("looking out of window","wandering around");

cat.catFriends[1].activities.push("play","be grumpy");

**//8.Update the fur color of bar**

**Solution::**

cat.catFriends[0].furcolor = 'brown';

**Problem 0: Part B**

**Iterating with JSON object’s Values**

Above is some information about my car. As you can see, I am not the best driver.  
I have caused a few accidents.  
Please update this driving record so that I can feel better about my driving skills

**Object:**

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

                    }

                ]

            };

**//1.Loop over the accidents array. Change atFaultForAccident from true to**

**false.**

**Solution::**

    for(var i=0;i<myCar.accidents.length;i++)

    {

        myCar.accidents[i].atFaultForAccident = false;

    }

**//2. Print the dated of my accidents**

**Solution::**

    for(var ind=0;ind<myCar.accidents.length;ind++)

    {

        console.log(myCar.accidents[ind].date);

    }

**Problem 1:**

**Parsing an JSON object’s Values:**

**Q:** Write a function called “printAllValues” which returns an newArray of all the input object’s values.

Input (Object):

var object = {name: “RajiniKanth”, age: 33, hasPets : false};

Output:

[“RajiniKanth”, 33, false]

**Solution::**

var obj = {name : "RajiniKanth", age : 33, hasPets : false};

function printAllValues(obj) {

return Object.values(obj);

}

console.log(printAllValues(obj));

**Problem 2:**

**Parsing an JSON object’s Keys:**

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

Example Input:

{name : ‘RajiniKanth’, age : 25, hasPets : true}

Example Output:

[‘name’, ‘age’, ‘hasPets’]

**Solution::**

var obj = {name : "RajiniKanth", age : 33, hasPets : false};

function printAllKeys(obj) {

return Object.keys(obj);

}

console.log(printAllKeys(obj));

**Problem 3:**

**Parsing an JSON object and convert it to a list:**

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

Input (Object):

var object = {name: “ISRO”, age: 35, role: “Scientist”};

Output:

[[“name”, “ISRO”], [“age”, 35], [“role”, “Scientist”]]

**Solution::**

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

function convertObjectToList(obj) {

return Object.entries(obj);

}

console.log(convertObjectToList(object));

**Problem 4:**

**Parsing a list and transform the first and last elements of it:**

**Q:** 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.

Input (Array):

var array = [“GUVI”, “I”, “am”, “Geek”];

Output:

var object = {

GUVI : “Geek”

}

**Solution::**

var arr = ["GUVI", "I", "am", "Geek"];

function transformFirstAndLast(arr) {

var newObject = {};

newObject[arr[0]] = arr[arr.length-1];

return newObject;

}

console.log(transformFirstAndLast(arr));

**Problem 5:**

**Parsing a list of lists and convert into a JSON object:**

**Q:** 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.

Input (Array):

var array = [[“make”, “Ford”], [“model”, “Mustang”], [“year”, 1964]];

Output:

var object = {

make : “Ford”

model : “Mustang”,

year : 1964

}

**Solution::**

var arr = [["make", "Ford"], ["model", "Mustang"], ["year", 1964]];

function fromListToObject(arr){

let newObject = {};

for(i=0;i<arr.length;i++)

{

newObject[arr[i][0]] = arr[i][1];

}

return newObject;

}

var object = fromListToObject(arr);

console.log(object);

**Problem 6:**

**Parsing a list of lists and convert into a JSON object:**

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

Input (Array):

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

Output:

[

{firstName: “Vasanth”, lastName: “Raja”, age: 24, role: “JSWizard”},

{firstName: “Sri”, lastName: “Devi”, age: 28, role: “Coder”}

]

**Solution::**

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

function transformGeekData(arr){

let newObject = [];

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

{

let object = {};

for(var j=0;j<arr[0].length;j++)

{

object[arr[i][j][0]] = arr[i][j][1];

}

newObject.push(object);

}

return newObject;

}

var obj = transformGeekData(array);

console.log(obj);

**Problem 7:**

**Parsing two JSON objects and Compare:**

Read this : https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/JSON/stringify

**Q:** 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().

Note: The examples below represent different use cases for the same test. In practice, you should never have multiple tests with the same name.

Success Case:

Input:

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

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

assertObjectsEqual(actual, expected, ‘detects that two objects are equal’);

Output:

Passed

Failure Case:

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

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

assertObjectsEqual(actual, expected, ‘detects that two objects are equal’);

Output:

FAILED [my test] Expected {“foo”:6,”bar”:5}, but got {“foo”:5,”bar”:6}

**Solution::**

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

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

function assertsObjectEqual(actual,expected,testname)

{

if(JSON.stringify(actual) === JSON.stringify(expected))

return "Passed";

return `FAILED [my test] Expected ${JSON.stringify(expected)}, but got ${JSON.stringify(actual)}`;

}

console.log(assertsObjectEqual(actual,expected,'detects that two objects are equal'));

**Problem 8:**

**Parsing JSON objects and Compare:**

**Q:** I have a mock data of security Questions and Answers. You function should take the object and a pair of strings and should return if the quest is present and if its valid answer.

var securityQuestions = [

{

question: “What was your first pet’s name?”,

expectedAnswer: “FlufferNutter”

},

{

question: “What was the model year of your first car?”,

expectedAnswer: “1985”

},

{

question: “What city were you born in?”,

expectedAnswer: “NYC”

}

]

function chksecurityQuestions(securityQuestions,question) {

// your code here

return true or false;

}

//Test case1:

var ques = “What was your first pet’s name?”;

var ans = “FlufferNutter”;

var status = chksecurityQuestions(securityQuestions, ques, ans);

console.log(status); // true

//Test case2:

var ques = “What was your first pet’s name?”;

var ans = “DufferNutter”;

var status = chksecurityQuestions(securityQuestions, ques, ans);

console.log(status); // flase

**Solution::**

var securityQuestions = [

{

question: "What was your first pet’s name?",

expectedAnswer: "FlufferNutter"

},

{

question: "What was the model year of your first car?",

expectedAnswer: "1985"

},

{

question: "What city were you born in?",

expectedAnswer: "NYC"

}

];

function chksecurityQuestions(securityQuestions,question,answer) {

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

{

if(securityQuestions[i].question === question)

{

if(securityQuestions[i].expectedAnswer == answer)

return true;

}

}

return false;

}

var ques = "What was your first pet’s name?";

var ans = "FlufferNutter";

var final\_status = chksecurityQuestions(securityQuestions,ques,ans);

console.log(final\_status);

**Problem 9:**

**Parsing JSON objects and Compare:**

**Q:** Write a function to return the list of characters below 20 age

var students = [

{

name: “Siddharth Abhimanyu”, age: 21}, { name: “Malar”, age: 25},

{name: “Maari”,age: 18},{name: “Bhallala Deva”,age: 17},

{name: “Baahubali”,age: 16},{name: “AAK chandran”,age: 23}, {name:“Gabbar Singh”,age: 33},{name: “Mogambo”,age: 53},

{name: “Munnabhai”,age: 40},{name: “Sher Khan”,age: 20},

{name: “Chulbul Pandey”,age: 19},{name: “Anthony”,age: 28},

{name: “Devdas”,age: 56}

];

function returnMinors(arr)

{

}

console.log(returnMinors(students));

**Solution::**

var students = [

{

name: "Siddharth Abhimanyu", age: 21}, { name: "Malar", age: 25},

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

{name: "Baahubali",age: 16},{name: "AAK chandran",age: 23}, {name:"Gabbar Singh",age: 33},{name: "Mogambo",age: 53},

{name: "Munnabhai",age: 40},{name: "Sher Khan",age: 20},

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

{name: "Devdas",age: 56}

];

function returnMinors(arr){

let res = [];

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

{

if(students[i].age < 20)

res.push(students[i].name);

}

return res;

}

console.log(returnMinors(students));