Task-3;

Problem-0A:

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

}

]

}

cat.height = 5;

cat.weight= 25;

cat.name='Fluffyy';

console.log(cat)

for (i in cat.activities)

console.log(cat.activities[i]);

for (i in cat.catFriends)

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

let totalweight = 0;

for(i in cat.catFriends)

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

console.log(totalweight)

for (i in cat.activities){

console.log(cat.activities[i])

}

for (i in cat.catFriends){

for(j in cat.catFriends[i].activities){

console.log(cat.catFriends[i].activities[j])

}

}

cat.catFriends[0].activities.push('dance','fight');

cat.catFriends[1].activities.push('run','bite');

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

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

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

console.log(cat.catFriends[0].furcolor);

Problem 0B:

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

}

]

}

for (i in myCar.accidents)

myCar.accidents[i].atFaultForAccident = false;

console.log(myCar);

for (i in myCar.accidents)

console.log(myCar.accidents[i].date)

Problem 1:

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

function printAllValues(obj) {

return Object.values(obj);

}

var x = printAllValues(obj);

console.log(x);

Problem 2:

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

function printAllValues(obj) {

return Object.keys(obj);

}

var x = printAllValues(obj);

console.log(x);

Problem 3:

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

function convertListToObject(obj) {

return Object.entries(obj);

}

var object1 = convertListToObject(obj);

console.log(object1);

Problem 4:

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

function transformFirstAndLast(arr) {

var newObject={};

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

return newObject;

}

var res = transformFirstAndLast(arr);

console.log(res);

Problem 5:

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

function fromListToObject(arr) {

var newObject = {};

for (i in arr){

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

}

return newObject;

}

console.log(fromListToObject(arr));

Problem 6:

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

function transformEmployeeData(arr) {

var tranformEmployeeList = [];

for(i in arr){

let newlist ={};

for(j in arr[i]){

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

}

tranformEmployeeList.push(newlist);

}

return tranformEmployeeList

}

console.log(transformEmployeeData(arr))

Problem 7:

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

var expected1 = {foo: 6, bar: 5};

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

function assertObjectsEqual(actual, expected, testName){

actualStr = JSON.stringify(actual)

expectedStr = JSON.stringify(expected)

if(actualStr == expectedStr){

return "Passed"

} else{

return "FAILED ["+testName+"] Expected "+actualStr+", but got "+expectedStr

}

}

console.log(assertObjectsEqual(actual, expected, 'test1'))

console.log(assertObjectsEqual(actual, expected1, 'test2'))

Problem 8:

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++)

{

for (keys in securityQuestions[i]){

if(keys == "question"){

if(securityQuestions[i].question == question && securityQuestions[i].expectedAnswer == answer){

return true;

}

}

}

}

return false;

}

//Test case1:

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

var ans = 'FlufferNutter';

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

console.log(status);

//Test case2:

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

var ans = 'DufferNutter';

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

console.log(status);

Problem 9:

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 minors = [];

for (i in arr){

if ( arr[i].age < 20)

minors.push(arr[i].name)

}

return minors

}

console.log(returnMinors(students));