Problem 0 : Part A (15 mins):

Playing with JSON object’s Values:

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);

**Basic Tasks to play with JSON**

1. Add height and weight to Fluffy

cat.height = 5;

cat.weight = 10;

console.log(cat);

1. Fluffy name is spelled wrongly. Update it to Fluffyy

cat.name = 'Fluffyy';

console.log(cat);

1. List all the activities of Fluffyy’s catFriends.

cat.catFriends.forEach(k=>console.log(k.activities));

1. Print the catFriends names.

cat.catFriends.forEach(p=>console.log(p.name))

1. Print the total weight of catFriends

var sum = 0;

cat.catFriends.forEach(k=>sum=sum+k.weight);

console.log(sum);

1. Print the total activities of all cats (op:6)

let arr = [];

let c = 0;

cat.activities.forEach(p=>{

if(!arr.includes(p)){

arr.push(p);

c++;

}

})

cat.catFriends.forEach(m=>{

m.activities.forEach(n=>{

if(!arr.includes(n)){

arr.push(n);

c++;

}

})

})

console.log(c);

1. Add 2 more activities to bar & foo cats

cat.catFriends[0].activities.push('play','sleep')

cat.catFriends[1].activities.push('swim','eat')

1. Update the fur color of bar

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

# Problem 0 : Part B

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.

for(let i in myCar.accidents){

myCar.accidents[i].atFaultForAccident=false;

}

console.log(myCar);

2. Print the dated of my accidents

myCar.accidents.forEach(p=>console.log(p.date));

# ****Problem 1****

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

function printAllValues(obj) {

return Object.values(obj);

}

let arr = printAllValues(obj);

console.log(arr);

# Problem 2

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

function printAllValues(obj) {

return Object.keys(obj);

}

let arr = printAllValues(obj);

console.log(arr);

# Problem 3

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

function convertListToObject(obj) {

console.log(Object.entries(obj));

}

convertListToObject(obj)

Problem 4

var arr = ['GUVI', 'I', 'am', 'a geek'];

function transformFirstAndLast(arr) {

let a = arr[0];

let b = arr.pop();

let newObject = {};

newObject[a]=b;

return newObject;

}

console.log(transformFirstAndLast(arr));

Problem 5

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

function fromListToObject(arr) {

var newObject = {};

arr.forEach(p=>{

let a = p[0];

let b = p[1];

newObject[a]=b;

})

return newObject;

}

console.log(fromListToObject(arr));

Problem 6

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

function transformEmployeeData(arr) {

var tranformEmployeeList = [];

arr.forEach(p=>{

var newObject = {};

p.forEach(k=>{

let a = k[0];

let b = k[1];

newObject[a]=b;

})

tranformEmployeeList.push(newObject);

})

//Your code

return tranformEmployeeList;

}

console.log(transformEmployeeData(arr));

Problem 7

var expected = {foo: 5, bar: 7};

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

function assertObjectsEqual(actual, expected, testName){

// your code here

var ac = JSON.stringify(actual);

var ex = JSON.stringify(expected);

if(ac===ex){

console.log('Passed')

}else{

console.log('FAILED['+testName+'] Expected '+ex+', but got '+ac)

}

}

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

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,ques,ans) {

let c=0;

securityQuestions.forEach(p=>{

if(p.question==ques && p.expectedAnswer==ans){

c++;

return;

}

})

if(c===0){

return false;

}else{

return true;

}

// your code here

}

//Test case1:

var ques1 = 'What was your first pet’s name?';

var ans1 = 'FlufferNutter';

var status1 = chksecurityQuestions(securityQuestions, ques1, ans1);

console.log(status1); // true

//Test case2:

var ques2 = 'What was your first pet’s name?';

var ans2 = 'DufferNutter';

var status2 = chksecurityQuestions(securityQuestions, ques2, ans2);

console.log(status2); // flase

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 ret = [];

arr.forEach(p=>{

if(p.age<20){

ret.push(p.name);

}

})

return ret;

}

console.log(returnMinors(students));