GUVI : Zen Code-Sprint : JavaScript Practice problems in JSON(Objects) and List

**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.

**Basic Tasks to play with JSON**

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

**Solution:**

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 = 7;

cat.weight = 20;

console.log(cat);

**Output:**

{ name: 'Fluffy',

 activities: [ 'play', 'eat cat food' ],

 catFriends:

  [ { name: 'bar', activities: [Array], weight: 8, furcolor: 'white' },

    { name: 'foo', activities: [Array], weight: 3 } ],

 height: 7,

 weight: 20 }

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

Solution:

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.name = "Fluffyy";

console.log(cat.name);

**Output**: Fluffyy

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

**Solution:**

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);

**Output:**

[ 'be grumpy', 'eat bread omblet' ]

[ 'sleep', 'pre-sleep naps' ]

**4.Print the catFriends names.**

**Solution:**

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);

**Output:**

bar  foo

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

**Solution:**

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);

**Output:**

11

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

**Solution:**

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.activities +"   "+ cat.catFriends[0].activities+"   "+cat.catFriends[0].activities);

Output:

play,eat cat food   be grumpy,eatbread omblet   be grumpy,eat bread omble

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

**Solution:**

cat.catFriends[0].activities = ["be sleepy", "eat biryani and omblet"];

cat.catFriends[1].activities = ["be active", "eat fruits and fish"];

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

**8.Update the fur color of bar**

**Solution:**

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.catFriends[0].furcolor = "red";

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

console.log(cat);

**Output:**

Red

{ name: 'Fluffy',

 activities: [ 'play', 'eat cat food' ],

 catFriends:

  [ { name: 'bar', activities: [Array], weight: 8, furcolor: 'red' },

    { name: 'foo', activities: [Array], weight: 3 } ] }

## JSON object’s Values

**2. 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.**

**Solution:**

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(var i in myCar.accidents){

    console.log(myCar.accidents[i].atFaultForAccident = false)

}

for(var j in myCar.accidents){

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

    }

console.log(myCar)

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

//     console.log(data[i])

// }

# **Problem 1(5 mins) :**

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

var obj = {

        name : "Rajanikanth",

        age : 33,

        hasPets : false

    }

function printAllvalues(obj){

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

}

printAllvalues(obj)

# **Problem 2(5 mins) :**

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

var obj = {

        name : "Rajanikanth",

        age : 33,

        hasPets : false

    }

function printAllvalues(obj){

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

}

printAllvalues(obj)

# **Problem 3( 7–9 mins):**

## Parsing an JSON object and convert it to a list: 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) {

     var arr = [];

     for (var key in obj){

     arr.push([key, obj[key]]);

  }

  return arr;

}

# **Problem 9(20 mins):**

## Parsing JSON objects and Compare: Write a function to return the list of characters below 20 age

**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)

{

    for(i = 0; i < arr.length ; i++){

         if(students[i].age < 20){

              console.log(students[i].name)

         }

    }

}

console.log(returnMinors(students));