/\***DAY -5 Functions**

**Anonymus Function - Function wo a name**

**IIFE - wrappin anonymus fun in a paranthesis and call the function**

**\*/**

//a)Print odd numbers in an array

//Method 1 - Anonymus Function

let numberArray = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14];

let check\_OddNumbers = function (numberArray) {

let oddElemts = [];

// loop elements in an array

for (let i of numberArray) {

// check the odd elemnets in the array

if (i % 2 !== 0) {

//push odd elements to a new array

oddElemts.push(i);

}

}

//return the final array with elemnts on the end of the for loop

return oddElemts;

};

console.log("Check Odd Numbers Anonymus", check\_OddNumbers(numberArray));

/\*

INPUT : [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14]

OUTPUT : Check Odd Numbers Anonymus (7) [1, 3, 5, 7, 9, 11, 13]

\*/

//Method 2 - selfInvoking function

(function (data) {

let oddNumArray = [];

// loop elements in an array

for (let i of data) {

// check the odd elemnets in the array

if (i % 2 !== 0) {

//push odd elements to a new array

oddNumArray.push(i);

}

}

//return the final array with elemnts on the end of the for loop

console.log("Check Odd Numbers IIFE", oddNumArray);

return oddNumArray;

})(numberArray);

/\*

INPUT : [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14]

OUTPUT : Check Odd Numbers IIFE (7) [1, 3, 5, 7, 9, 11, 13]

\*/

///////////////////////////////////////////////////////////////////////////////////////////

//b)Convert all the strings to title caps in a string array

//Method 1- Anonymus Function

let sentence = "i aM vISMAYA Wilson";

let convert\_ToTitleCase = function (sentence) {

//for normalization convert all to lowercase

let titleCase = sentence.toLowerCase();

//get each words to an array

let splitString = titleCase.split(" ");

//loop anc convert ist letter to upperCase

for (let i = 0; i < splitString.length; i++) {

//convert ist letter to uppercase and remaing to lowercase

splitString[i] =

splitString[i].charAt(0).toUpperCase() +

splitString[i].slice(1).toLowerCase();

}

return splitString.join(" ");

};

console.log(

"convert to title case Anonymus function",

convert\_ToTitleCase(sentence)

);

/\*

INPUT : i aM vISMAYA Wilson"

OUTPUT : convert to title case Anonymus function I Am Vismaya Wilson

\*/

//Method 2 -IIFE

(function (sentence) {

//for normalization convert all to lowercase

let titleCase = sentence.toLowerCase();

//get each words to an array

let splitString = titleCase.split(" ");

//loop anc convert ist letter to upperCase

for (let i = 0; i < splitString.length; i++) {

//convert ist letter to uppercase and remaing to lowercase

splitString[i] =

splitString[i].charAt(0).toUpperCase() +

splitString[i].slice(1).toLowerCase();

}

let finalString = splitString.join(" ");

console.log("convert to title case IIFE", convert\_ToTitleCase(sentence));

return finalString;

})(sentence);

/\*

INPUT : i aM vISMAYA Wilson"

OUTPUT : convert to title case IIFE I Am Vismaya Wilson

\*/

/////////////////////////////////////////////////////////////////////////////

//c.Sum of all numbers in an array

//Method 1 Anonymus Function

const sumElemts = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100];

let totalSum = function (sumElemts) {

let sum = 0;

//looping the Elements

for (let i of sumElemts) {

//Adding each elem with sum

sum = sum + i;

}

//returing final sum after loop

return sum;

};

console.log(

"Sum of all numbers in an array Anonymus Function",

totalSum(sumElemts)

);

/\*

INPUT : [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

OUTPUT : Sum of all numbers in an array Anonymus Function 550

\*/

//Method 2 IIFE

(function (sumElemts) {

let sum = 0;

//looping the Elements

for (let i of sumElemts) {

//Adding each elem with sum

sum = sum + i;

}

//returing final sum after loop

console.log("Sum of all numbers in an array IIFE Function", sum);

return sum;

})(sumElemts);

/\*

INPUT : [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

OUTPUT : Sum of all numbers in an array IIFE Function 550

\*/

////////////////////////////////////////////////////////////////////

//d)Return all the prime numbers in an array

//Method 1:Anonymus Function

let primeNumArray = [2,3,4,5,6,7,8,9,10,11,12,13];

let getPrimeNumbers = function(primeNumArray){

primeNumArray.filter((data)=>{

for(let i = 2; i< data; i++){

if(data % i === 0)

return false;

}

return true;

});

}

console.log('getPrimeNumbers from an array ', getPrimeNumbers(primeNumArray));

//e)Return all the palindromes in an array

//Method 1 Anonymus Function

//f)Return median of two sorted arrays of same size

//Method 1 Anonymus function

let array1 = [1, 3, 50];

let array2 = [50, 89, 37];

let median = function (array1, array2) {

let medianValue;

// create new array by joinin other 2 arrays

let finalArray = [...array1, ...array2];

//sort the array in ascending order

let sortedArray = finalArray.sort((a, b) => a - b);

//find the length of the array

let len = sortedArray.length;

let index = Math.floor(len) / 2;

//check the the length is odd

if (len % 2 !== 0) {``

// if odd meadian is the center value

medianValue = sortedArray[index];

} else {

// if even find average of middle elements

medianValue = (sortedArray[index] + sortedArray[index - 1]) / 2;

}

return medianValue;

};

console.log("Median of arrays in ANonymus function: " + median(array1, array2));

/\*

INPUT : [1, 3, 50]; [50, 89, 37];

OUTPUT : Median of arrays in ANonymus function: 43.5

\*/

//Method 2 IIFE

(function (array1, array2) {

let medianValue;

// create new array by joinin other 2 arrays

let finalArray = [...array1, ...array2];

//sort the array in ascending order

let sortedArray = finalArray.sort((a, b) => a - b);

//find the length of the array

let len = sortedArray.length;

let index = Math.floor(len) / 2;

//check the the length is odd

if (len % 2 !== 0) {

// if odd meadian is the center value

medianValue = sortedArray[index];

} else {

// if even find average of middle elements

medianValue = (sortedArray[index] + sortedArray[index - 1]) / 2;

}

console.log("Median of arrays in IIFE function: " + medianValue);

return medianValue;

})(array1, array2);

/\*

INPUT : [1, 3, 50]; [50, 89, 37];

OUTPUT : Median of arrays in IIFE function:: 43.5

\*/

/////////////////////////////////////////////////////////////////////////////////////////////////////////

//g) Remove duplicates from an array

let arrElements = [1, 2, 2, 2, 2, 3, 4, 4, 4, 5, 5, 6, 6, 7, 7, 9];

//Method 1 -Anonymus function

let removeDuplicates = function (arrElements) {

//set will remove duplicates from the array

let removeElem = [...new Set(arrElements)];

return removeElem;

};

console.log(

"Remove duplicates from an array Anonymus",

removeDuplicates(arrElements)

);

/\*

INPUT : [1,2,2,2,2,3,4,4,4,5,5,6,6,7,7,9]

OUTPUT : Remove duplicates from an array Anonymus (8) [1, 2, 3, 4, 5, 6, 7, 9]

\*/

//Method2 -IIFE

(function (arrElements) {

let removeElem = arrElements.filter((data, index) => {

return arrElements.indexOf(data) === index;

});

console.log("Remove duplicates from an array IIFE", removeElem);

})(arrElements);

/\*

INPUT : [1,2,2,2,2,3,4,4,4,5,5,6,6,7,7,9]

OUTPUT : Remove duplicates from an array IIFE(8) [1, 2, 3, 4, 5, 6, 7, 9]

\*/

///////////////////////////////////////////////////////////////////////////////////

//h)Rotate an array by k times

let arrayValue = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10];

let rotateArray = function (arr, k) {

for (let i = 1; i <= k; i++) {

arr.unshift(arr.pop());

}

return arr;

};

console.log("Roate Array", rotateArray(arrayValue, 3));

console.log("RotateArray", rotateArray(arrayValue, 5));

///////////////////////////////////////////////////////////////////////////////////

//ARROW FUNCTIONS

//1)Print odd numbers in an array

let isOdd = (numberArray) => {

let oddElts = [];

for (let i of numberArray) {

if (i % 2 !== 0) {

oddElts.push(i);

}

}

return oddElts;

};

console.log("Arrow Func ODD", isOdd(numberArray));

/\*

INPUT : [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14];

OUTPUT : Arrow Func ODD (7) [1, 3, 5, 7, 9, 11, 13]

\*/

///////////////////////////////////////////////////////////////////////////////////

//2)Convert all the strings to title caps in a string Array

let stringElements = ["vismaya","Wilson","sUSMitha","EBIN"];

let titleCaseElem = [];

let convert\_To\_TitleCase = (stringElements) =>{

for(let i = 0; i < stringElements.length; i++){

stringElements[i] = stringElements[i].charAt(0).toUpperCase() + stringElements[i].slice(1).toLowerCase();

titleCaseElem.push(stringElements[i]);

}

return titleCaseElem;

}

console.log("CONVERT TO TITLE CASE",convert\_To\_TitleCase(stringElements));

OUTPUT:



//3)Sum of all numbers in an array

let sumAll = (sumElemts) => {

const reducer = (accumulator, currentValue) => accumulator + currentValue;

return sumElemts.reduce(reducer);

};

console.log("Arrow Func sum of All", sumAll(sumElemts));

/\*

INPUT : [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]

OUTPUT : Arrow Func sum of All 550

\*/

//4)Return all the prime numbers in an array

let primeElemts = () =>{

let numberArray =[1,2,3,4,5,6,7,8,9,10];

numberArray.filter((data)=>{

for(let i = 2; i < data; i++){

if(data % i === 0) return false;

}

return true;

});

}

console.log("Vismaya");

console.log("Arrow Functions Print Prime Numbers in array",primeElemts());

///////////////////////////////////////////////////////////////////////////////////

//5)Return all the palindromes in an array

let checkIsPallindrome = ["hindi", "malayalam", "english", "mom", "12321"];

let returnPallindromes = (checkIsPallindrome) => {

let pallindromWords = [];

for (let i = 0; i < checkIsPallindrome.length; i++) {

if (

checkIsPallindrome[i] ===

checkIsPallindrome[i].split("").reverse().join("")

) {

pallindromWords.push(checkIsPallindrome[i]);

}

}

return pallindromWords;

};

console.log("PALINDROME ARRAY", returnPallindromes(checkIsPallindrome));

OUTPUT:



/\*

Zen Code-Sprints :— JavaScript Functions — Warmup Pbms

\*/

//1)Write a function called “addFive”.

//Given a number, “addFive” returns 5 added to that number.

let addFive = (num) => {

return num + 5;

};

console.log(addFive(5));

console.log(addFive(0));

console.log(addFive(-5));

//2)Write a function called “getOpposite”.

//Given a number, return its opposite

function getOpposite(num) {

if (num < 1) return Math.abs(num);

else if (num > 1 && Number.isInteger(num) === true) return -num;

else if (num === 0) return 0;

else if (num > 1 && Number.isInteger(num) === false) return -1;

else return -1;

}

var result = getOpposite(5);

console.log(result);

console.log(getOpposite(0));

console.log(getOpposite(-5));

console.log(getOpposite("5a"));

console.log(getOpposite(5.5));

//3)Fill in your code that takes an number minutes and converts it to seconds.

function toSeconds(min) {

//1min = 60 seconds.so multiply with 60

return min \* 60;

}

var secs = toSeconds(5);

console.log(secs);

console.log(toSeconds(3));

console.log(toSeconds(2));

//4)Create a function that takes a string and returns it as an integer.

function toInteger(mystr) {

//parseInt will convert to Integer

return parseInt(mystr);

}

var myint = toInteger("6");

console.log(`${myint} ${toInteger("1000")} ${toInteger("12")}`);

//5 Create a function that takes a number as an argument, increments the number by +1 and returns the result.

function nextNumber(myint) {

return myint + 1;

}

var myNextint = nextNumber(0);

console.log(`${myNextint} ${nextNumber(9)} ${nextNumber(-3)}`);

//6 Create a function that takes an array and returns the first element.

var arr = [1, 2, 3];

function getFirstElement(arr) {

return arr[0];

}

var data = getFirstElement(arr);

console.log(

`${data} ${getFirstElement([80, 5, 100])} ${getFirstElement([-500, 0, 50])}`

);

//7Convert Hours into Seconds

let hourToSeconds = (arr) => {

return arr \* 3600;

};

console.log(`${hourToSeconds(2)}, ${hourToSeconds(10)},${hourToSeconds(24)}`);

//8)Find the Perimeter of a Rectangle

//Create a function that takes height and width and finds the perimeter of a rectangle.

function findPerimeter(num1, num2) {

return (num1 + num2) \* 2;

}

var peri = findPerimeter(6, 7);

console.log(`${peri} ${findPerimeter(20, 10)} ${findPerimeter(2, 9)}`);

//9 Given two numbers, return true if the sum of both numbers is less than 100. Otherwise return false.

function lessThan100(num1, num2) {

return num1 + num2 > 100 ? "false" : "true";

}

var res = lessThan100(22, 15);

console.log(`${res} ${lessThan100(83, 34)}`);

//10)There is a single operator in JavaScript, capable of providing the remainder of a division operation. Two numbers are passed as parameters.

//The first parameter divided by the second parameter will have a remainder, possibly zero. Return that value.

function remainder(num1, num2) {

// Gives remainder of the operation

return num1 % num2;

}

var res = remainder(1, 3);

console.log(

`${res} ${remainder(3, 4)} ${remainder(-9, 45)} ${remainder(5, 5)}`

);

//11Count legs of Animals

function CountAnimals(tur, horse, pigs) {

return tur \* 2 + horse \* 4 + pigs \* 4;

}

var legs = CountAnimals(2, 3, 5);

console.log(`${legs} ${CountAnimals(1, 2, 3)} ${CountAnimals(5, 2, 8)}`);

//12 Frames Per Second

function frames(num1, num2) {

return 60 \* num2 \* num1;

}

var fps = frames(1, 2);

console.log(`${fps}, ${frames(1, 1)} ${frames(10, 1)} ${frames(10, 25)}`);

//13 Check if an Integer is Divisible By Five

function divisibleByFive(num1) {

return num1 % 5 === 0 ? true : false;

}

var divisible = divisibleByFive(5);

console.log(`${divisible} ${divisibleByFive(-55)} ${divisibleByFive(37)}`);

//14 Write a function called “isEven”.

function isEven(num) {

if (typeof num === "string") return -1;

if (num % 2 === 0) return true;

return false;

}

var even = isEven(5);

console.log(

`${even} ${isEven(12)} ${isEven(0)} ${isEven(11)} ${isEven("11h")}`

);

//15) Write a function called “areBothOdd”.

function areBothOdd(num1, num2) {

return num1 % 2 !== 0 && num2 % 2 !== 0 ? true : false;

// your code here

}

console.log(

`${areBothOdd(1, 3)} ${areBothOdd(1, 4)} ${areBothOdd(2, 3)} ${areBothOdd(

0,

0

)}`

);

//16 Given a first and a last name, “getFullName” returns a single string with the

//given first and last names separated by a single space.

function getFullName(firstName, lastName) {

if (firstName && lastName) return firstName + " " + lastName;

if (!firstName) return lastName;

if (!lastName) return firstName;

if (!firstName && !lastName) return "' '";

}

console.log(`

${getFullName("GUVI", "GEEK")}

${getFullName("GUVI")}

${getFullName("", "GEEK")}

${getFullName("", "")}`);

//17)Given a word, “getLengthOfWord” returns the length of the given word.

function getLengthOfWord(word1) {

if (word1 === "") return 0;

return word1 && word1.length >= 0 ? word1.length : -1;

// your code here

}

console.log(`

${getLengthOfWord("GUVI")}

${getLengthOfWord("")}

${getLengthOfWord()}

${getLengthOfWord(9)}`);

//18)Given two words, “isSameLength” returns whether the given words have the same length.

function isSameLength(word1, word2) {

// your code here

return word1.length === word2.length ? true : false;

}

console.log(`${isSameLength("GUVI", "GEEK")}`);

//19)Create a function to calculate the distance between two points defined by their x, y coordinates

console.log(getDistance(100, 100, 400, 300));

console.log(getDistance(3, 4, 4, 3));

function getDistance(x1, y1, x2, y2) {

let diff1 = x2 - x1;

let diff2 = y2 - y1;

return Math.sqrt(Math.pow(diff1, 2) + Math.pow(diff2, 2));

}

//20 Write a function called “getNthElement”.

function getNthElement(array, n) {

return array.length > 0 ? array[n] : undefined;

}

console.log(getNthElement([1, 3, 5], 1));

//21)Write a function called “getLastElement”.

console.log(getLastElement([1, 2, 3, 4]));

function getLastElement(array) {

return array.length > 0 ? array[array.length - 1] : -1;

}

//22)Write a function called “getProperty”.

var obj = {

mykey: "value",

};

let value;

console.log(getProperty(obj, "mykey"));

console.log(getProperty(obj, "dummykey"));

function getProperty(obj, key) {

for (i in obj) {

return i === key ? obj[i] : "NA";

}

}

//23)2Given an object and a key, “addProperty” adds a new property on the given object with a value of true.

function addProperty(obj, key) {

obj[key] = true;

return obj;

}

var obj = {

mykey: "value",

};

console.log(addProperty(obj, "mykey"));

//24 Given an object and a key, “removeProperty” removes the given key from the given object.

//https://www.cloudhadoop.com/2020/02/different-ways-of-remove-property-in.html2222222222wwww2

var myName = {

name: true,

};

console.log(removeProperty(myName, "name"));

function removeProperty(obj, name) {

obj[name] = undefined;

return obj;

}

//25)Return an array, where the first element is the count of positives numbers and the second element is sum of negative numbers.

var arr = [-5, 10, -3, 12, -9, 5, 90, 0, 1];

var arr1 = [50, -50, 50, -50, 0, 0, 0, 0, 0, 10, 10, 10, 10, 10];

let negativeArraySum = 0;

let positiveArraySum = 0;

var ar2 = function countPositivesSumNegatives(arr) {

arr.map((data) => {

if (data < 0) negativeArraySum = negativeArraySum + data;

else positiveArraySum = positiveArraySum + data;

});

return [negativeArraySum, positiveArraySum];

};

console.log(ar2(arr1));

console.log(ar2(arr));

//26)//Create a function that receives an array of numbers and returns an array containing only the positive numbers

function getPositives(ar) {

let positiveArray = [];

//generating new array if number >= 0 the num ber will be positive

ar.map((data) => {

if (data >= 0) {

positiveArray.push(data);

}

});

return positiveArray;

}

var ar = [-5, 10, -3, 12, -9, 5, 90, 0, 1];

var ar2 = getPositives(ar);

console.log(ar2);

//27)Create a function that receives an array of numbers and returns an array containing only the positive numbers

//Write a function `powersOfTwo` which will return list of all powers of 2 from 0 to n (where n is an exponent).

function powersOfTwo(n) {

let powerTwoArr = [];

for (let i = 0; i <= n; i++) {

powerTwoArr.push(Math.pow(2, i));

}

return powerTwoArr;

}

console.log("Power of 2", powersOfTwo(0));

console.log("Power of 2", powersOfTwo(1));

console.log("Power of 2", powersOfTwo(2));

//28 Find the maximum number in an array of numbers

function findMax(ar) {

return Math.max(...ar);

}

var ar = [-5, 10, -3, 12, -9, 5, 90, 0, 1];

var max = findMax(ar);

console.log("Max: ", max);

//29)Print the first 100 prime numbers

//30)Create a function that will return in an array the first “nPrimes” prime numbers greater than a particular number “startAt”

//31)Reverse a string

var s = reverseString("JavaScript");

console.log(s);

function reverseString(s) {

let split = s.split("");

console.log(split);

let reverseData = split.reverse().join("");

return reverseData;

}

//32)Create a function that will merge two arrays and return the result as a new array

var ar1 = [1, 2, 3];

var ar2 = [4, 5, 6];

var ar = mergeArrays(ar1, ar2);

console.log(ar);

function mergeArrays(ar1, ar2) {

var result = [];

//this will add the first array to the result array

for (let el of ar1) {

result.push(el);

}

for (let el of ar2) {

result.push(el);

}

//Some piece of code goes here

return result;

}

//33)Calculate the sum of numbers received in a comma delimited string

console.log(sumCSV("1.5, 2.3, 3.1, 4, 5.5, 6, 7, 8, 9, 10.9"));

console.log(sumCSV("1.1,1.1,1.1,1.1,1.1"));

function sumCSV(s) {

let sum = 0;

let numArray = s.split(",");

for (let i = 0; i < numArray.length; i++) {

sum = sum + parseFloat(numArray[i]);

}

return sum.toFixed(2);

// your code here

}

//34)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.

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,

},

],

};

// Add height and weight to Fluffy

cat["height"] = "15cm";

cat["weight"] = "25kg";

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

cat["name"] = "Fluffyy";

let catFriendsWeight = [];

let totalActivities = [];

totalActivities.push(cat.activities.length);

for (let i of cat.catFriends) {

// Print the catFriends names.

console.log("Name : ", i.name);

catFriendsWeight.push(i.weight);

totalActivities.push(i.activities.length);

console.log("TOTAL ACTIVITIES");

// Add 2 more activities to bar & foo cats

i.activities.push("Catch Rats", "Drinks Milk");

for (let j of i.activities) {

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

console.log(j);

}

}

// Print the total weight of catFriends

const reducer = (prev, accumlator) => {

return prev + accumlator;

};

console.log(catFriendsWeight.reduce(reducer));

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

console.log(totalActivities.reduce(reducer));

// Update the fur color of bar

cat.catFriends[0]["furcolor"] = "RED";

console.log(cat);

//35)Problem 0 : Part B (15 mins):

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 (let i of myCar.accidents) {

// Print the dated of my accidents

console.log("Date: " + i.date);

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

i.atFaultForAccident = false;

}

console.log("myCar:", myCar);

//36)Write a function called “printAllValues” which returns an newArray of all the input object’s values.

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

function printAllValues(object) {

let allValues = [];

for (let i in object) {

allValues.push(object[i]);

}

return allValues;

}

console.log("printAllValues", printAllValues(object));

//37)Parsing an JSON object’s Keys:

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

//[‘name’, ‘age’, ‘hasPets’]

function printAllKeys(obj) {

let keyObj = [];

for (let i in obj) {

//i contains the key and pushing it to an array

keyObj.push(i);

}

return keyObj;

}

console.log(printAllKeys(object));

//38)Input (Object):

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

//Output:

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

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

function convertListToObject(objOne) {

//Converting Object to array

return Object.entries(objOne);

}

console.log(convertListToObject(objOne));

//39Parsing a list and transform the first and last elements of it:

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

function transformFirstAndLast(arr) {

let first = arr[0];

let last = arr[arr.length - 1];

//Adding Key and value to an Object

let newObject = {

[first]: last,

};

return newObject;

}

console.log(transformFirstAndLast(arr));

//40)Parsing a list of lists and convert into a JSON object:

var parseArrToObject = [

["make", "Ford"],

["model", "Mustang"],

["year", 1964],

];

function fromListToObject(arr) {

//Converting array to Objects

var newObject = Object.fromEntries(arr);

return newObject;

}

console.log(fromListToObject(parseArrToObject));

//41)Parsing a list of lists and convert into a JSON object:

var parseArrOfArr = [

[

["firstName", "Vasanth"],

["lastName", "Raja"],

["age", 24],

["role", "JSWizard"],

],

[

["firstName", "Sri"],

["lastName", "Devi"],

["age", 28],

["role", "Coder"],

],

];

function transformEmployeeData(arr) {

let newArr = [];

for (let i of arr) {

//converting array to Objects and pushing to array

newArr.push(Object.fromEntries(i));

}

return newArr;

}

console.log(transformEmployeeData(parseArrOfArr));

//42)//Parsing two JSON objects and Compare:

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

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

var actual2 = { foo: 9, bar: 16 };

var actual1 = { foo: 5, bar: 6 };

function assertObjectsEqual(actual, expected, testName) {

//converting Object to Sring

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

//if true returning passed

return "Passed";

//if false returning faliure

return "FALIURE";

}

/\*console.log(

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

);

console.log(

assertObjectsEqual(actual2, actual1, "detects that two objects are equal")

);\*/

//43)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, ans) {

//Apllied filter to array of Objects

let checkedAnswer = securityQuestions.filter((data) => {

//cheked if it satisfies the condition

return data.question === question && data.expectedAnswer === ans;

});

// if condition satisfied return true else false

let result = checkedAnswer.length > 0 ? "true" : "false";

return result;

}

//Test case1:

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

var ans = "FlufferNutter";

var status2 = chksecurityQuestions(securityQuestions, ques, ans);

//console.log(status2); // true

//Test case2:

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

var ans = "DufferNutter";

var status1 = chksecurityQuestions(securityQuestions, ques, ans);

//console.log(status1); //flase

//44)Parsing JSON objects and Compare:

//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 },

];

//console.log(returnMinors(students));

function returnMinors(arr) {

//Filter the array to get each elements retuen the condition and return the new array

let newArr = arr.filter((person) => {

return person.age <= 20;

});

return newArr;

}

**OUTPUT:**















