





Task 1

JS test04.js

JS test01.js X

Week09 > Lab_Javascript_fundamentals > js > JS test01.js > ...

```
1  // =====
2  // Question 1
3  // =====
4  console.log('=====Q1=====');
5  totalBill = parseInt(prompt('Please enter total bill amount: '))
6  tipPercentage = 10 //Percentage
7  tipAmount = (totalBill * 0.10).toFixed(2)
8  console.log(`For bill of ${totalBill} the tip should be ${tipAmount}`);
9
10 // =====
11 // Question 2
12 // =====
13 console.log('=====Q2=====');
14 totalBill = prompt('Please enter total bill amount: ')
15 if (isNaN(totalBill)) {
16     console.log('!! Please enter proper amount in the decimal !!');
17 }
18 else {
19     totalBill = parseInt(totalBill)
20     tipPercentage = 10 //Percentage
21     tipAmount = (totalBill * 0.10).toFixed(2)
22     console.log(`For bill of ${totalBill} the tip should be ${tipAmount}`);
23 }
24
25 // =====
26 // Question 3
27 // =====
28 console.log('=====Q3=====');
29 // totalBill = prompt('Please enter total bill amount: ')
30 // if (isNaN(totalBill)) {
31 //     console.log('!! Please enter proper amount in the decimal !!');
32 // }
33 // else {
34 billTotals = [50, 150, 20, 500]
35 tips = []
36 for (let i = 0; i < billTotals.length; i++) {
37     const element = billTotals[i];
38     tipPercentage = 0 // Percentage
39     if (element <= 30) {
40         tipPercentage = 30
41     } else if (element <= 75) {
42         tipPercentage = 20
43     } else {
44         tipPercentage = 10
45     }
46     tipAmount = (element * (tipPercentage / 100)).toFixed(0)
47     tips.push(tipAmount)
48 }
49 // totalBill = parseInt(totalBill)
50 // tipPercentage = 10 //Percentage
51 // tipAmount = (totalBill * 0.10).toFixed(2)
52 for (let i = 0; i < billTotals.length; i++) {
53     const element = billTotals[i];
54     console.log(`For bill of ${element} the tip should be ${tips[i]}`);
55 }
56 // }
```

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=====Q1=====						test01.js:4	
For bill of 20 the tip should be 2.00						test01.js:8	
=====Q2=====						test01.js:13	
!! Please enter proper amount in the decimal !!						test01.js:16	
=====Q3=====						test01.js:28	
For bill of 50 the tip should be 10						test01.js:54	
For bill of 150 the tip should be 15						test01.js:54	
For bill of 20 the tip should be 6						test01.js:54	
For bill of 500 the tip should be 50						test01.js:54	
=====Q5=====						test01.js:61	
For bill of 50 the tip should be 10						test01.js:83	
For bill of 150 the tip should be 15						test01.js:83	
For bill of 20 the tip should be 6						test01.js:83	
For bill of 500 the tip should be 50						test01.js:83	
>							

Task 5

```

57
58 // =====
59 // Question 5
60 // =====
61 console.log('=====Q5=====');
62 function calculateTip(total) {
63     tipPercentage = 0 // Percentage
64     if (total <= 30) {
65         tipPercentage = 30
66     } else if (total <= 75) {
67         tipPercentage = 20
68     } else {
69         tipPercentage = 10
70     }
71     return (total * (tipPercentage / 100)).toFixed(0)
72 }
73
74 billTotals = [50, 150, 20, 500]
75 tips = []
76 for (let i = 0; i < billTotals.length; i++) {
77     const element = billTotals[i];
78     tipAmount = calculateTip(element)
79     tips.push(tipAmount)
80 }
81 for (let i = 0; i < billTotals.length; i++) {
82     const element = billTotals[i];
83     console.log(`For bill of ${element} the tip should be ${tips[i]}`);
84 }

```

Task 4

JS test04.js ×

Week09 > Lab_Javascript_fundamentals > js > JS test04.js > ...

```
1  // import data from '../js/data';
2  // convert comma-separated values into an array
3  countries = csv.split(',')
4  console.log("🚀 ~ countries:", countries)
5
6  // convert array into delimited string
7  console.log("🚀 ~ countries :", countries.join(','))
8
9  // check if these are arrays
10 console.log("🚀 ~ check CSV :", Array.isArray(csv))
11 console.log("🚀 ~ check countries :", Array.isArray(countries))
12
13 // sort a simple array
14 countries.sort()
15 console.log("🚀 ~ sort countries :", countries)
16
17 // reverse the sort
18 countries.sort().reverse()
19 console.log("🚀 ~ reverse sort countries :", countries)
20
21 // remove the first element
22 countries.shift()
23 console.log("🚀 ~ shift countries :", countries)
24
25 // remove the last element
26 countries.pop()
27 console.log("🚀 ~ remove by pop countries :", countries)
28
29 // add new elements to the front of the array
30 countries.unshift('United States', 'Austria')
31 console.log("🚀 ~ remove by pop countries :", countries)
32
33 // search for element
34 console.log("🚀 ~ search countries :", countries.includes('Germany'))
35
36 // search for element index
37 console.log("🚀 ~ search index countries :", countries.indexOf('Germany'))
38
39 // make a new array by extracting from another array
40 console.log("🚀 ~ splice countries :", countries.splice(2, 5))
41 console.log("🚀 ~ remaining countries :", countries)
42
```

```

44 console.log('-----');
45
46 // there are other array methods which you will learn in Ch 10 */
47
48
49 // use a loop to output all cities whose continent=="NA"
50 for (let i = 0; i < cities.length; i++) {
51     const element = cities[i];
52     if (element.continent == 'NA') {
53         console.log("🚀 ~ cities element:", element)
54     }
55 }
56
57
58 console.log('-----');
59
60 // use a loop to output gallery names whose country=="USA"
61 for (let i = 0; i < galleries.length; i++) {
62     const element = galleries[i];
63     if (element?.location?.country == 'USA') {
64         console.log("🚀 ~ galleries element:", element.name)
65     }
66 }
67
68
69 console.log('-----');
70
71 /* use a loop output using document.write a unordered
72    list of links to the galleries in the galleries array.
73    Make the label of the link the name property, and the href
74    the url property */
75 document.write('<ul>')
76 for (let i = 0; i < galleries.length; i++) {
77     const element = galleries[i];
78     if (element?.location?.country == 'USA') {
79         document.write(`<li><a href = ${element.url}> ${element.name} </a></li>`)
80     }
81 }
82 document.write('</ul>')
83
84

```

Test your Knowledge #4

Most of the output will be in the console. Eventually there will be a list of galleries here.

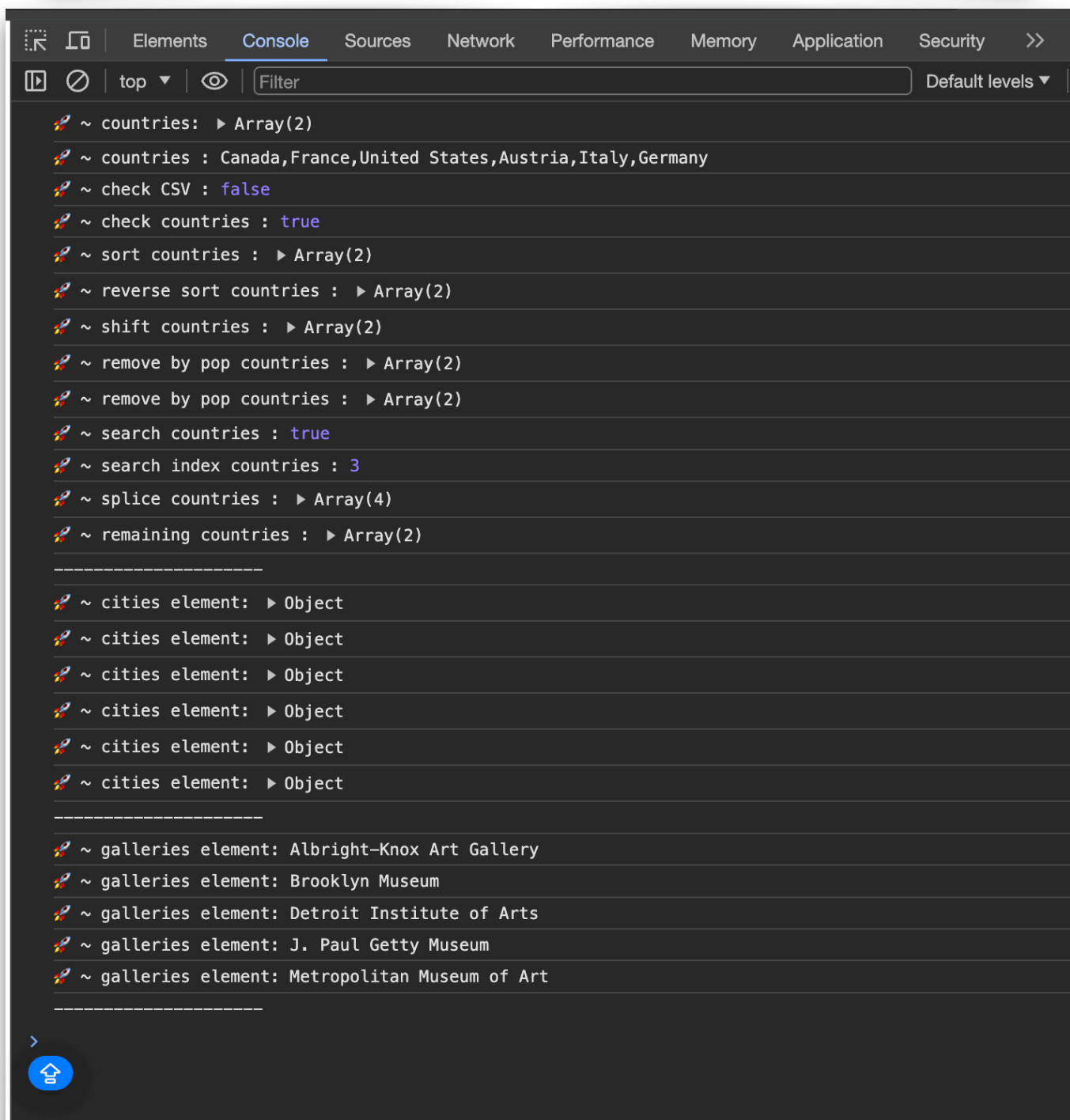
[Albright-Knox Art Gallery](#)

[Brooklyn Museum](#)

[Detroit Institute of Arts](#)

[J. Paul Getty Museum](#)

[Metropolitan Museum of Art](#)



```
~ countries:  ▶ Array(2)
~ countries : Canada,France,United States,Austria,Italy,Germany
~ check CSV : false
~ check countries : true
~ sort countries :  ▶ Array(2)
~ reverse sort countries :  ▶ Array(2)
~ shift countries :  ▶ Array(2)
~ remove by pop countries :  ▶ Array(2)
~ remove by pop countries :  ▶ Array(2)
~ search countries : true
~ search index countries : 3
~ splice countries :  ▶ Array(4)
~ remaining countries :  ▶ Array(2)
-----
~ cities element:  ▶ Object
~ cities element:  ▶ Object
~ cities element:  ▶ Object
~ cities element:  ▶ Object
~ cities element:  ▶ Object
~ cities element:  ▶ Object
-----
~ galleries element: Albright-Knox Art Gallery
~ galleries element: Brooklyn Museum
~ galleries element: Detroit Institute of Arts
~ galleries element: J. Paul Getty Museum
~ galleries element: Metropolitan Museum of Art
-----
```