Task 1

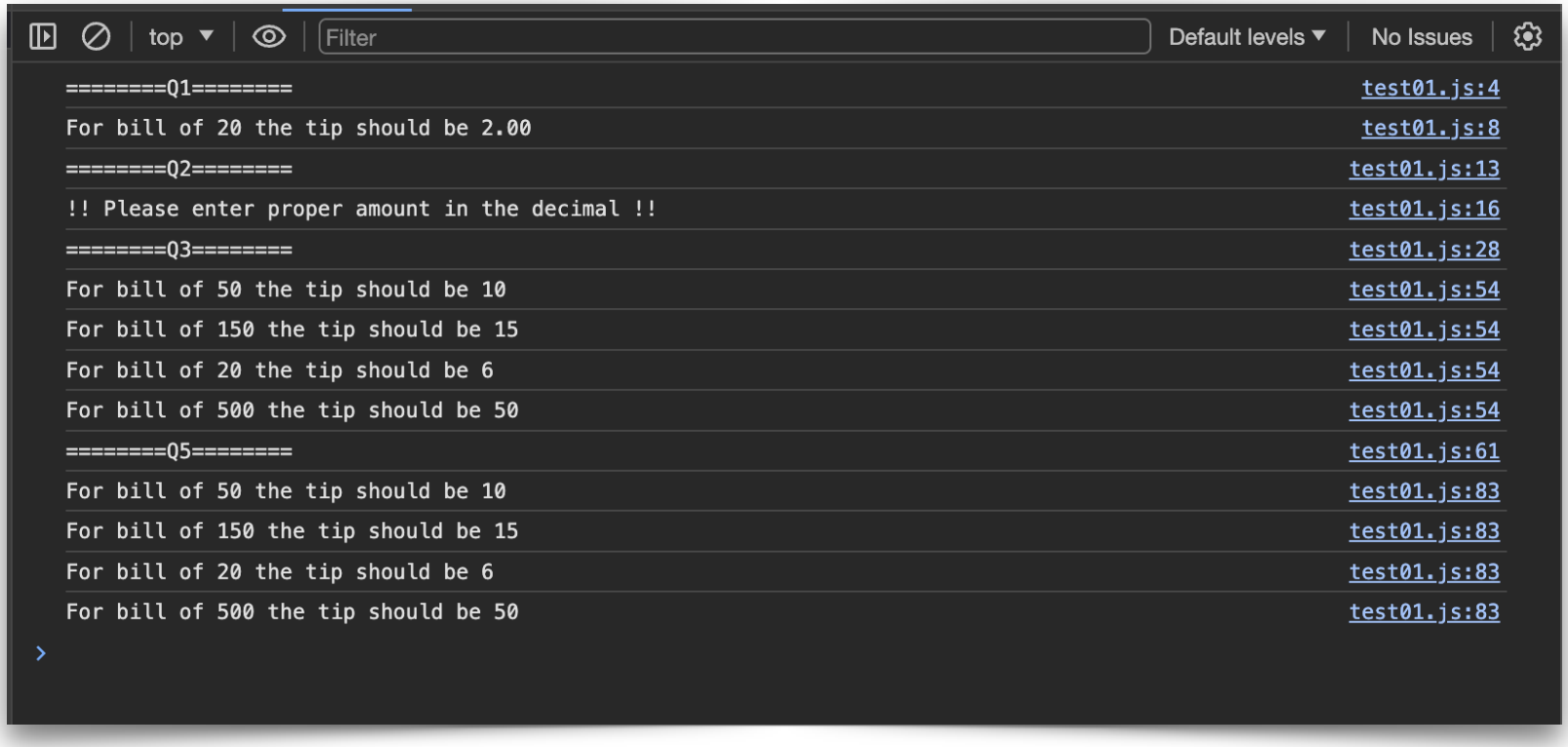
test04.js | test01.js

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

```
// =================
// Question 1
// =================
console.log('========Q1========');
totalBill = parseInt(prompt('Please enter total bill amount: '))
tipPercentage = 10 //Percentage
tipAmount = (totalBill * 0.10).toFixed(2)
console.log(`For bill of ${totalBill} the tip should be ${tipAmount}`);

// =================
// Question 2
// =================
console.log('========Q2========');
totalBill = prompt('Please enter total bill amount: ')
if (isNaN(totalBill)) {
    console.log('!! Please enter proper amount in the decimal !!');
}
else {
    totalBill = parseInt(totalBill)
    tipPercentage = 10 //Percentage
    tipAmount = (totalBill * 0.10).toFixed(2)
    console.log(`For bill of ${totalBill} the tip should be ${tipAmount}`);
}

// =================
// Question 3
// =================
console.log('========Q3========');
// totalBill = prompt('Please enter total bill amount: ')
// if (isNaN(totalBill)) {
// console.log('!! Please enter proper amount in the decimal !!');
// }
// else {
billTotals = [50, 150, 20, 500]
tips = []
for (let i = 0; i < billTotals.length; i++) {
    const element = billTotals[i];
    tipPercentage = 0 // Percentage
    if (element <= 30) {
        tipPercentage = 30
    } else if (element <= 75) {
        tipPercentage = 20
    } else {
        tipPercentage = 10
    }
    tipAmount = (element * (tipPercentage / 100)).toFixed(0)
    tips.push(tipAmount)
}
// totalBill = parseInt(totalBill)
// tipPercentage = 10 //Percentage
// tipAmount = (totalBill * 0.10).toFixed(2)
for (let i = 0; i < billTotals.length; i++) {
    const element = billTotals[i];
    console.log(`For bill of ${element} the tip should be ${tips[i]}`);
}
// }
```



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

test04.js

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```
// import data from '../js/data';
// convert comma-separated values into an array
countries = csv.split(',')
console.log("🚀 ~ countries:", countries)

// convert array into delimited string
console.log("🚀 ~ countries :", countries.join(','))

// check if these are arrays
console.log("🚀 ~ check CSV :", Array.isArray(csv))
console.log("🚀 ~ check countries :", Array.isArray(countries))

// sort a simple array
countries.sort()
console.log("🚀 ~ sort countries :", countries)

// reverse the sort
countries.sort().reverse()
console.log("🚀 ~ reverse sort countries :", countries)

// remove the first element
countries.shift()
console.log("🚀 ~ shift countries :", countries)

// remove the last element
countries.pop()
console.log("🚀 ~ remove by pop countries :", countries)

// add new elements to the front of the array
countries.unshift('United States', 'Austria')
console.log("🚀 ~ remove by pop countries :", countries)

// search for element
console.log("🚀 ~ search countries :", countries.includes('Germany'))

// search for element index
console.log("🚀 ~ search index countries :", countries.indexOf('Germany'))

// make a new array by extracting from another array
console.log("🚀 ~ splice countries :", countries.splice(2, 5))
console.log("🚀 ~ remaining countries :", countries)

```

```
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