

Lab: DOM Introduction

Problems for in-class lab for the ["JavaScript Advanced" course @ SoftUni](https://judge.softuni.org/Contests/2760/DOM-Introduction-Lab). Submit your solutions in the SoftUni judge system at <https://judge.softuni.org/Contests/2760/DOM-Introduction-Lab>

Environment Specifics

Please, be aware that every JS environment may **behave differently** when executing code. Certain things that work in the browser are not supported in **Node.js**, which is the environment used by **Judge**.

The following actions are **NOT** supported:

- `.forEach()` with **NodeList** (returned by `querySelector()` and `querySelectorAll()`)
- `.forEach()` with **HTMLCollection** (returned by `getElementsByClassName()` and `element.children`)
- Using the **spread-operator** (`...`) to convert a **NodeList** into an array
- `append()` in Judge (use only `appendChild()`)
- `prepend()`
- `replaceWith()`
- `replaceAll()`
- `closest()`
- `replaceChildren()`
- Always turn the collection into a **JS array** (`forEach`, `forOf`, et.)

If you want to perform these operations, you may use `Array.from()` to first convert the collection into an array.

1. Edit Element

Create function `edit()` that takes **three** parameters.

Input/Output

The **first** parameter is a **reference** to an **HTML** element, the other two parameters are string—**match** and **replacer**.

You have to **replace** all occurrences of the **match** inside the **text content** of the given element with a **replacer**.

Examples

Hello, %insert name here%!

Edit Element



Hello, Document Object Model!

Edit Element

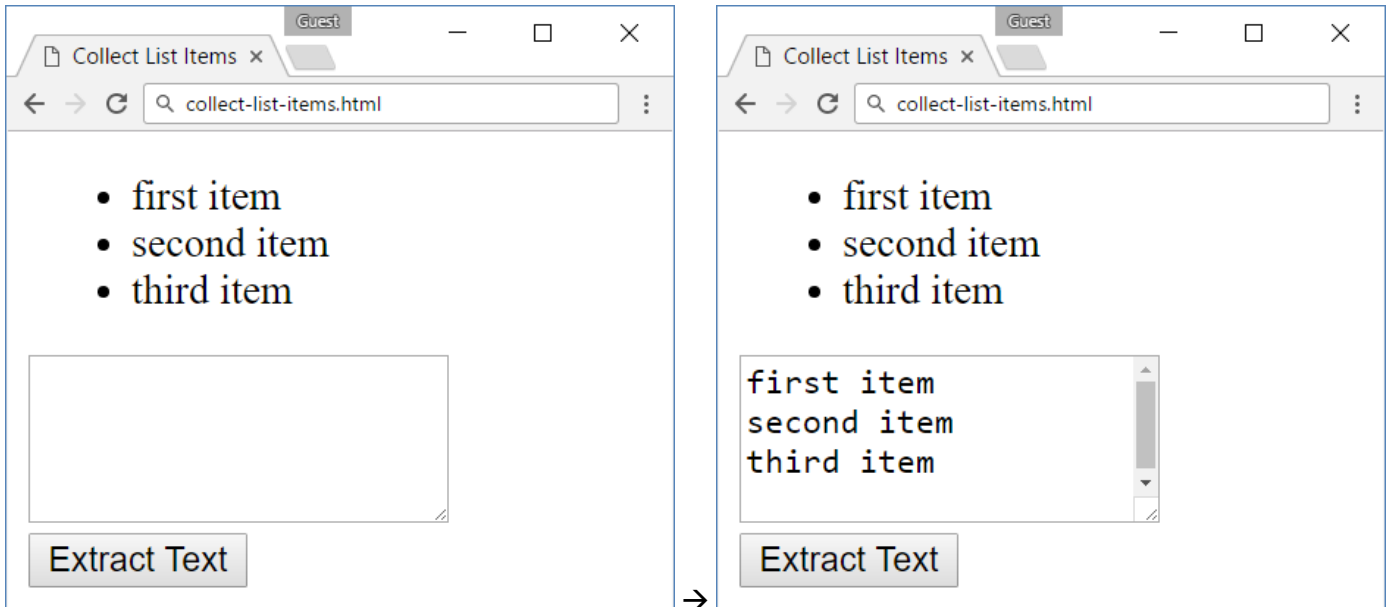
2. Collect List Items

Write a JS function that scans a given **HTML list** and **appends** all collected list items' text to a **textarea** on the same page when the user **clicks** on a button.

Input/Output

There will be no input/output, your program should instead **modify** the DOM of the given HTML document.

Examples



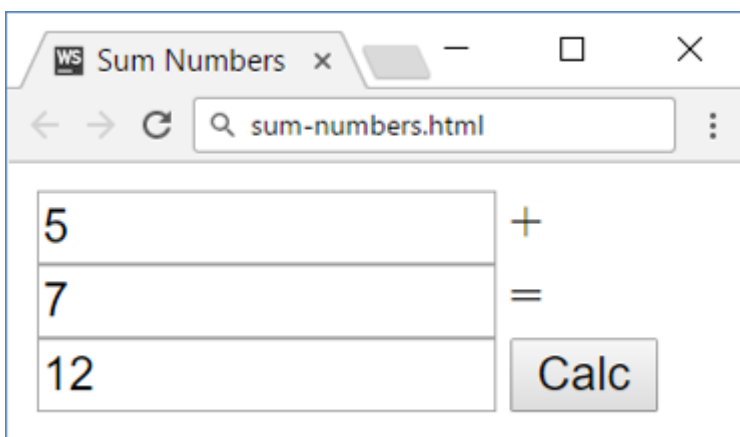
3. Sum Numbers

Write a JS function that **reads** two numbers from input fields in a **web page** and puts their **sum in another field** when the user **clicks** on a button.

Input/Output

There will be no input/output, your program should instead **modify** the DOM of the given HTML document.

Examples



4. Show More

Write a JS function that **expands** a hidden section of text when a link is **clicked**. The link should **disappear** as the rest of the text shows up.

Input/Output

There will be no input/output, your program should instead **modify** the DOM of the given HTML document.

Examples

Welcome to the "Show More Text Example". [Read more ...](#)



Welcome to the "Show More Text Example". Welcome to JavaScript and DOM.

5. Colorize Table

Write a JS function that **changes the color** of all **even** rows when the user **clicks** a button. Apply the color "Teal" to the target rows.

Input/Output

There will be no input/output, your program should instead **modify** the DOM of the given HTML document.

Examples

Name	Town
Eve	Sofia
Nick	Varna
Didi	Ruse
Tedy	Varna
<button>Colorize</button>	

 →

Name	Town
Eve	Sofia
Nick	Varna
Didi	Ruse
Tedy	Varna
<button>Colorize</button>	

6. Sum Table

Write a JS function that finds the first table in a document and sums the values in the last column. The result is then displayed in an element with ID "sum".

Input/Output

There will be no input/output, your program should instead **modify** the DOM of the given HTML document.

Examples

Product Cost	
Beer	2.88
Fries	2.15
Burger	4.59
Total:	
<input type="button" value="Sum"/>	

 →

Product Cost	
Beer	2.88
Fries	2.15
Burger	4.59
Total:	9.62
<input type="button" value="Sum"/>	

7. Extract Parenthesis

Write a JS function that when **executed**, extracts all parenthesized text from a target paragraph by given element ID. The result is a string, joined by ";" (semicolon, space).

Input

Your function will receive a **string parameter**, representing the target element ID, from which text must be extracted. The text should be extracted from the DOM.

Output

Return a **string** with all matched text, separated by ";" (semicolon, space).

Examples

```
...<!DOCTYPE html> == $0
<html lang="en">
  <head>...</head>
  <body>
    <p id="content">
      "
      The Rose Valley (Bulgaria) is located just south of the Balkan Mountains
      (Kazanlak).The most common oil-bearing rose found in the valley is the pink-
      petaled Damask rose (Rosa damascena Mill).
    "
  </p>
</body>
</html>
```

Sample call

```
let text = extract("content");
```

Result (stored in variable text)

Bulgaria; Kazanlak; Rosa damascena Mill