

Lab: DOM Events

Problems for in-class lab for the ["JavaScript Advanced" course @ SoftUni](https://judge.softuni.bg/Contests/2762/DOM-Manipulation-and-Events-Lab). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/2762/DOM-Manipulation-and-Events-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.

List of Items

Write a function that reads the text inside an input field and appends the specified text to a list inside an HTML page.

Examples

Delete from Table

Write a program that **takes** an **email** from an **input field** and **deletes** the matching row from a table.

- If entry is found, the **textContent** in the element with **id="result"** must be set to **"Deleted."**
- Otherwise, an **error** should be displayed in a **<div>** with **id="result"**. The error should be **"Not found."**

Submit **only** the **deleteByEmail()** function in Judge.

Input/Output

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

Examples

Add / Delete

Extend the previous problem to display a [Delete] link after each list item. Clicking it should delete the item with no confirmation. You have to add **href="#"** to the link element.

Examples

Mouse Gradient

Write a program that **detects** and **displays** how far along a gradient the user has **moved** their **mouse**. The result should be **rounded down** and displayed as a **percentage** inside the **<div>** with id **"result"**.

Submit **only** the **attachGradientEvents()** function in Judge.

Input/Output

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

Examples

Highlight Active

Write a **function** that **highlights** the **currently active** section of a document. There will be **multiple** divs with **input fields** inside them. Set the **class** of the **div** that contains the **currently focused** input field to

"focused". When the focus is lost (**blurred**), **remove the class** from the element.

Submit only the **focused()** function in Judge.

Input/Output

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

Example

Dynamic Validation

Write a **function** that **dynamically validates** an **email** input field when it is **changed**. If the input is **invalid**, apply the class **"error"**. Do **not** validate on every keystroke, as it is annoying for the user, consider only **change** events.

A valid email is considered to be in the format: **<name>@<domain>.<extension>**

Only **lowercase Latin characters** are allowed for any of the parts of the email. If the input is valid, **clear** the style. Submit **only** the **validate()** function in Judge.

Input/Output

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

Example

Shopping Cart

You will be given some products that you should be able to add to your cart. Each product will have a name, picture, and price.

When the **"Add"** button is clicked, append the current product to the textarea in the following format:

"Added {name} for {money} to the cart.\n". The price must be fixed to the second digit.

When the button **"Checkout"** is clicked, calculate the **total money** that you need to pay for the products that are currently in your cart. Append the result to the textarea in the following format:

"You bought {list} for {totalPrice}."

The list should contain only the **unique products**, separated by **" , "**. The total price should be rounded to the second decimal point.

Also, after clicking over **"Checkout"** and every from above is done you should **disable all buttons**. (You **can't** add products or checkout again if once the checkout button is clicked).

Examples