

# Lab: DOM Events

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

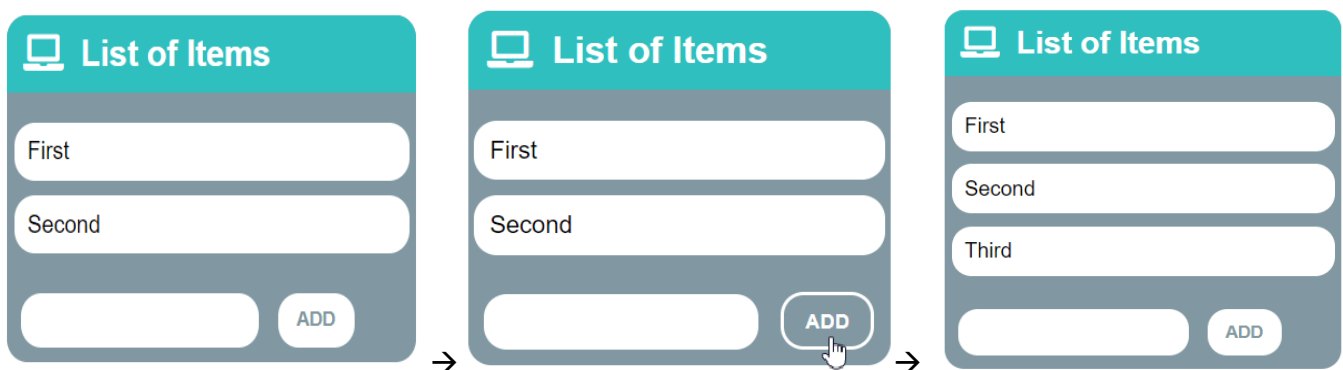
- `.forEach()` with **NodeList** (returned by `querySelector()` and `querySelectorAll()`)
- `.forEach()` with **HTMLCollection** (returned by `getElementsByClassName()` and `element.children`)
- Using the **spread-operator** (`...`) to convert a **NodeList** into an array
- `append()` in Judge (use only `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.

## 1. 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



## 2. 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

Name	Email
Eve	eve@gmail.com
Nick	nick@yahooo.com
Didi	didi@didi.net
Tedy	tedy@tedy.com

Email:  DELETE

Name	Email
Nick	nick@yahooo.com
Didi	didi@didi.net
Tedy	tedy@tedy.com

Email:  DELETE  
Deleted.

## 3. 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

List of Items

First [Delete]

Second [Delete]

ADD

→

List of Items

First [Delete]

ADD

## 4. 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



## 5. Highlight Active

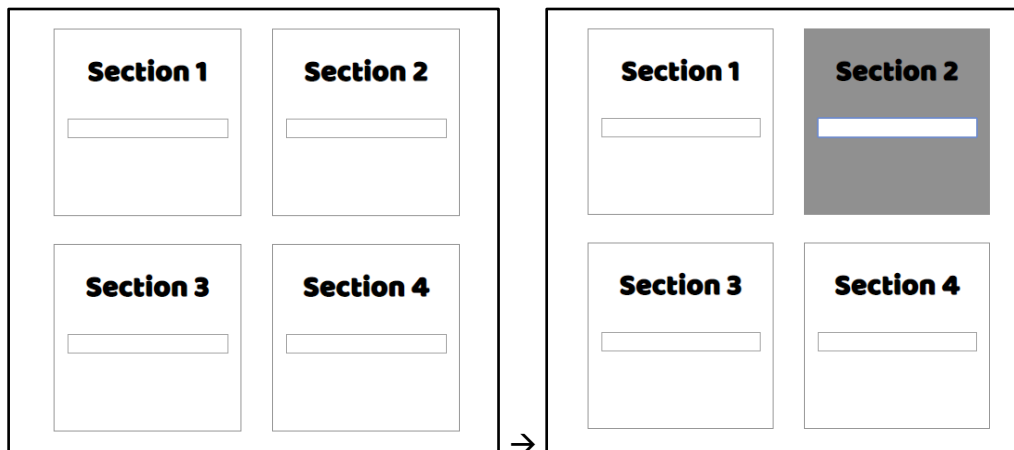
Write a **function** that **highlights** the **currently active** section of a document. There will be **multiple** divs with **input fields** inside them. Set the **class** of the **div** that contains the **currently focused** input field to `"focused"`. When the focus is lost (**blurred**), **remove 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



## 6. 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

**Enter email:**

 → 

**Enter email:**

## 7. 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

### Shopping Cart

		Price
	<b>Bread</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	<input type="button" value="Add"/> \$0.80
	<b>Milk</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	<input type="button" value="Add"/> \$1.09
	<b>Tomatoes</b> Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.	<input type="button" value="Add"/> \$0.99

Added Tomatoes for 0.99 to the cart.  
Added Bread for 0.80 to the cart.  
Added Bread for 0.80 to the cart.  
You bought Tomatoes, Bread for 2.59.