# Lab: DOM and Events

Problems for in-class lab for the [“JavaScript Advanced” course @ SoftUni](https://softuni.bg/courses/javascript-advanced). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/328/>.

## 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 given HTML file.

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| **Sample HTML** |
| <input type="text" id="num1" /> +  <input type="text" id="num2" /> =  <input type="text" id="sum" readonly="readonly" />  <input type="button" value="Calc" onclick="calc()" />  <script>  function calc() {  // TODO: sum = num1 + num2  }  </script> |

### Examples

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## 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 given HTML file.

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| **Sample HTML** |
| Welcome to the "Show More Text Example".  <a href="#" id="more" onclick= "showText()">Read more …</a>  <span id="text" style= "display:none">Welcome to JavaScript and DOM.</span>  <script>  function showText() {  // TODO  }  </script> |

### Examples

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## Collect List Items

Write a JS function that scans a given **HTML list** and **appends** all collected list items’ text to a **text area** 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 given HTML file.

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| **Sample HTML** |
| <ul id="items">  <li>first item</li>  <li>second item</li>  <li>third item</li>  </ul>  <textarea id="result"></textarea>  <br>  <button onclick="extractText()">Extract Text</button>  <script>  function extractText() {  // TODO  }  </script> |

### Examples

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## 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 given HTML file.

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| --- |
| **Sample HTML** |
| <table>  <tr><th>Name</th><th>Town</th></tr>  <tr><td>Eve</td><td>Sofia</td></tr>  <tr><td>Nick</td><td>Varna</td></tr>  <tr><td>Didi</td><td>Ruse</td></tr>  <tr><td>Tedy</td><td>Varna</td></tr>  </table>  <button onclick="colorize()">Colorize</button>  <script>  function colorize() {  // TODO  }  </script> |

### Examples

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## List of Items

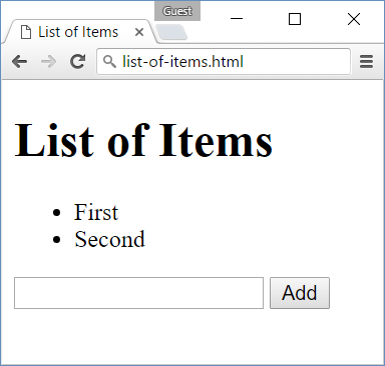
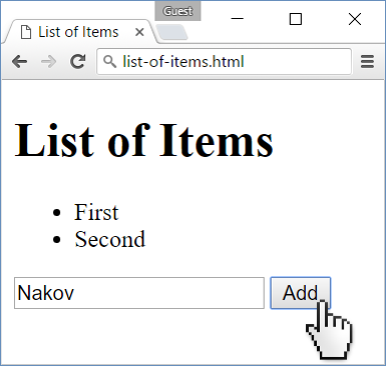
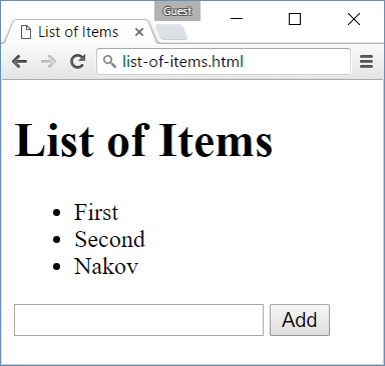
Write a JS function that **read** the text inside an input field and **appends** the specified text to a list inside an HTML page.

### Input/Output

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

|  |
| --- |
| **Sample HTML** |
| <h1>List of Items</h1>  <ul id="items"><li>First</li><li>Second</li></ul>  <input type="text" id="newItemText" />  <input type="button" value="Add" onclick="addItem()">  <script>  function addItem() {  // TODO: add new item to the list  }  </script> |

### Examples

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## Add and Delete

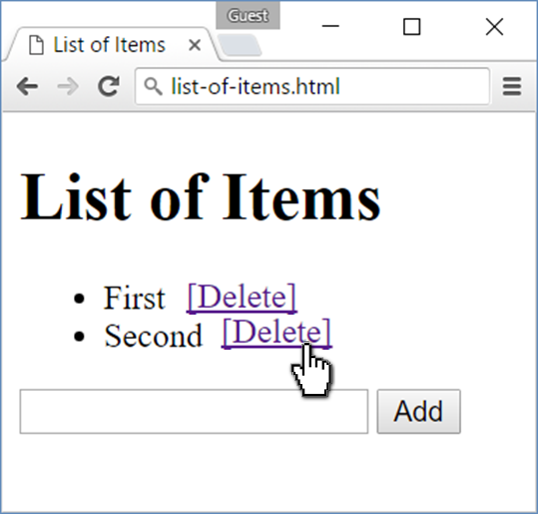
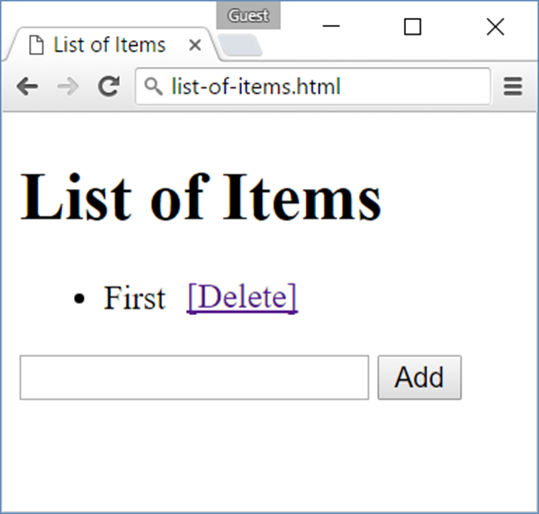
Extend the previous problem to display a **[Delete] link** after each list item. **Clicking** it, should **delete** the item with no confirmation.

### Input/Output

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

|  |
| --- |
| **Sample HTML** |
| <h1>List of Items</h1>  <ul id="items"></ul>  <input type="text" id="newText" />  <input type="button" value="Add"  onclick="addItem()">  <script>  function addItem() { ...  function deleteItem() { ... }  }  </script> |

### Examples

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## Delete from Table

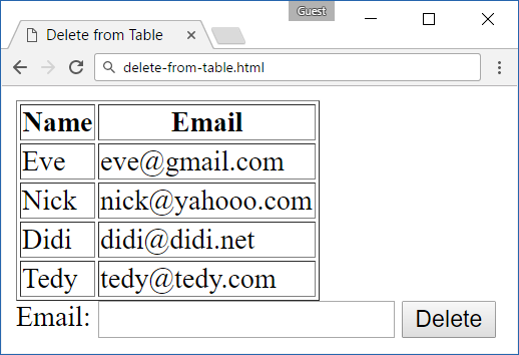
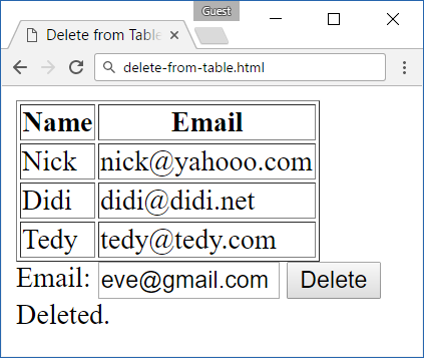
Write a JS program that **takes** an e-mail from an **input field** and **deletes** matching rows from a table. If no entry is found, an **error** should be displayed in a <div> with ID "**results**". The error should read "**Not found**."

### Input/Output

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

|  |
| --- |
| **Sample HTML** |
| <table border="1" id="customers">  <tr><th>Name</th><th>Email</th></tr>  <tr><td>Eve</td><td>eve@gmail.com</td></tr>  <tr><td>Nick</td><td>nick@yahooo.com</td></tr>  <tr><td>Didi</td><td>didi@didi.net</td></tr>  <tr><td>Tedy</td><td>tedy@tedy.com</td></tr>  </table>  Email: <input type="text" name="email" />  <button onclick="deleteByEmail()">Delete</button>  <div id="result" /> |

### Examples

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## Stopwatch

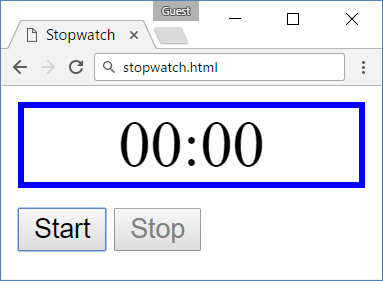
Write a JS program that **implements** a web timer that supports **minutes** and **seconds**. The user should be able to control it with **buttons**. Clicking **[Start]** **resets** the timer back to zero. Only one of the buttons should be enabled at a time (you cannot stop the timer if it’s not running).

### Input/Output

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

|  |
| --- |
| **Sample HTML** |
| <div id="time" style="border:3px solid blue; text-align:center; font-size:2em; margin-bottom:10px">00:00</div>  <button id="startBtn">Start</button>  <button id="stopBtn" disabled="true">Stop</button>  <script>window.onload = function() { stopwatch(); }</script> |

### Examples



## Mouse Gradient

Write a JS program that **detects** and displays how far along a gradient the user has **moved** their **mouse** on a webpage. Use the provided HTML and stylesheet (CSS) to test locally. The resulting value should be **rounded down** and displayed as a **percentage** inside the **<div>** with ID "**result**".

### Input/Output

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

|  |
| --- |
| **Sample HTML** |
| <html>  <head>  <title>Mouse in Gradient</title>  <link rel="stylesheet" href="gradient.css" />  <script src="gradient.js"></script>  </head>  <body onload="attachGradientEvents()">  <div id="gradient-box">  <div id="gradient">Click me!</div>  </div>  <div id="result"></div>  </body>  </html> |

|  |
| --- |
| **gradient.css** |
| #gradient-box {  width: 300px;  border: 2px solid lightgrey;  }  #gradient-box:hover {  border: 2px solid black;  }  #gradient {  height: 30px;  color: white;  text-shadow: 1px 1px 10px black;  text-align: center;  line-height: 30px;  background: linear-gradient(to right, black, white);  cursor: crosshair;  } |

### Examples

