

# JS Advanced: Exam 13 November 2016

Problems for exam preparation for the [“JavaScript Advanced” course @ SoftUni](#). Submit your solutions in the SoftUni judge system at <https://judge.softuni.bg/Contests/355/>.

## Problem 1. Add / Remove Towns (Simple DOM Interaction)

You are given the following **HTML** code:

add-remove-towns.html

```
<!-- JS Advanced Exam @ SoftUni - 13-Nov-2016 -->

<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Add / Remove Towns</title>
  <style>select, input { width: 100px }</style>
  <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
</head>

<body onload="attachEvents()">

<div>Towns</div>
<select id="towns" size="4">
  <option>Sofia</option>
  <option>Varna</option>
  <option>Pleven</option>
</select>

<button id="btnDelete">Delete</button>

<div>
  <input type="text" id="newItem" />
  <button id="btnAdd">Add</button>
</div>

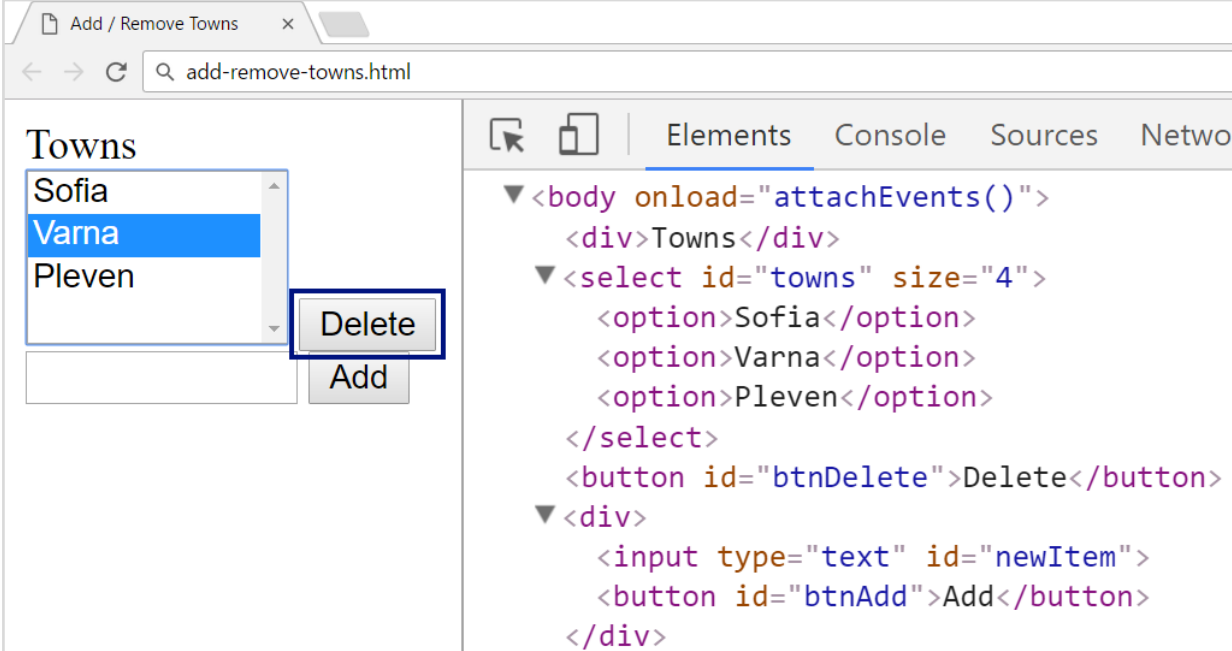
<script>
  function attachEvents() {
    // TODO: ...
  }
</script>
</body>
</html>
```

## Your Task

Write the missing JavaScript code to make the **[Add]** and **[Delete]** buttons work as expected.

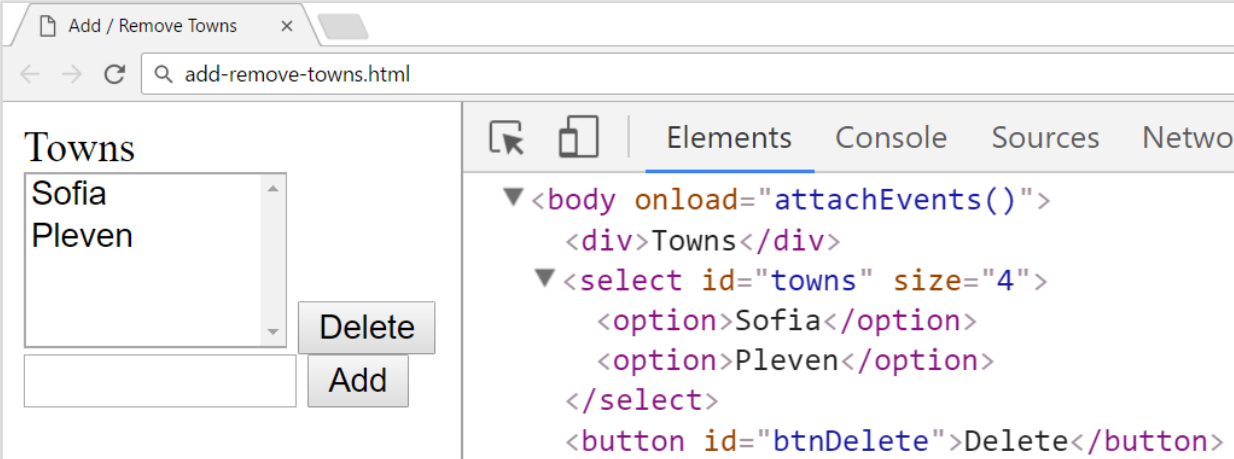
- The **[Add]** button should append the text from the text box as a new item at the end of the list box and clear the input text box after that. If the textbox is empty, it should do nothing.
- The **[Delete]** button should **delete selected item** from the list. If no item is selected, it should do nothing.
  - When an item is selected it has the property **selected**.

## Examples



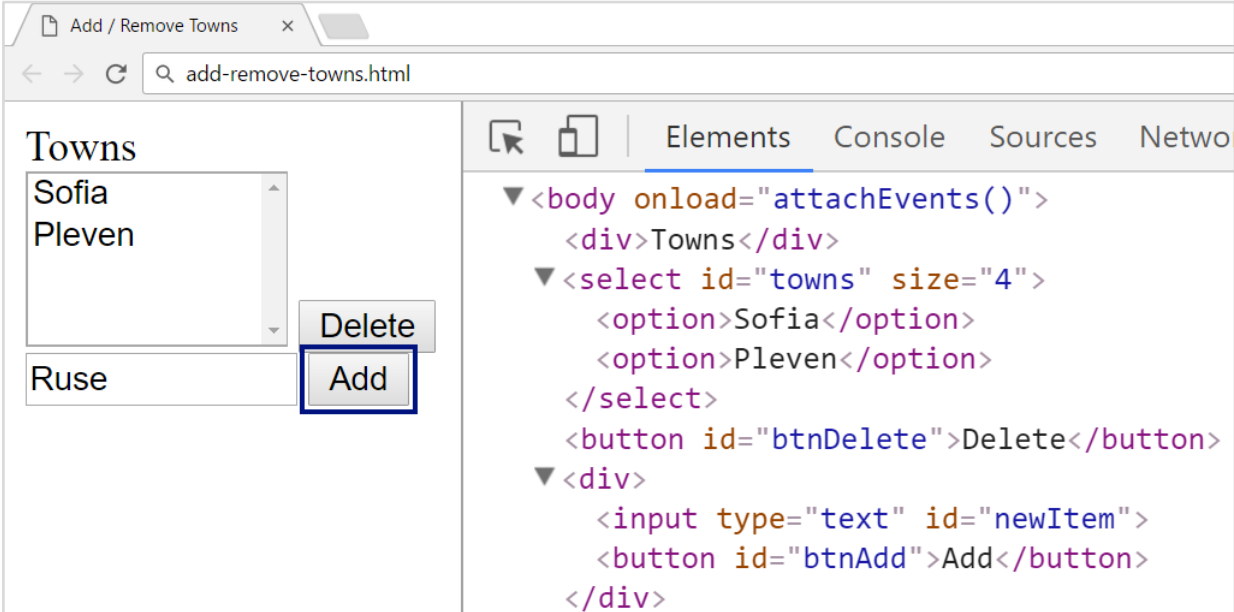
The screenshot shows a web browser window with the title "Add / Remove Towns" and the URL "add-remove-towns.html". The application displays a list of towns: Sofia, Varna, and Pleven. A "Delete" button is highlighted with a red box. The browser's developer tools are open, showing the DOM structure:

```
<body onload="attachEvents()">
  <div>Towns</div>
  <select id="towns" size="4">
    <option>Sofia</option>
    <option>Varna</option>
    <option>Pleven</option>
  </select>
  <button id="btnDelete">Delete</button>
  <div>
    <input type="text" id="newItem">
    <button id="btnAdd">Add</button>
  </div>
```



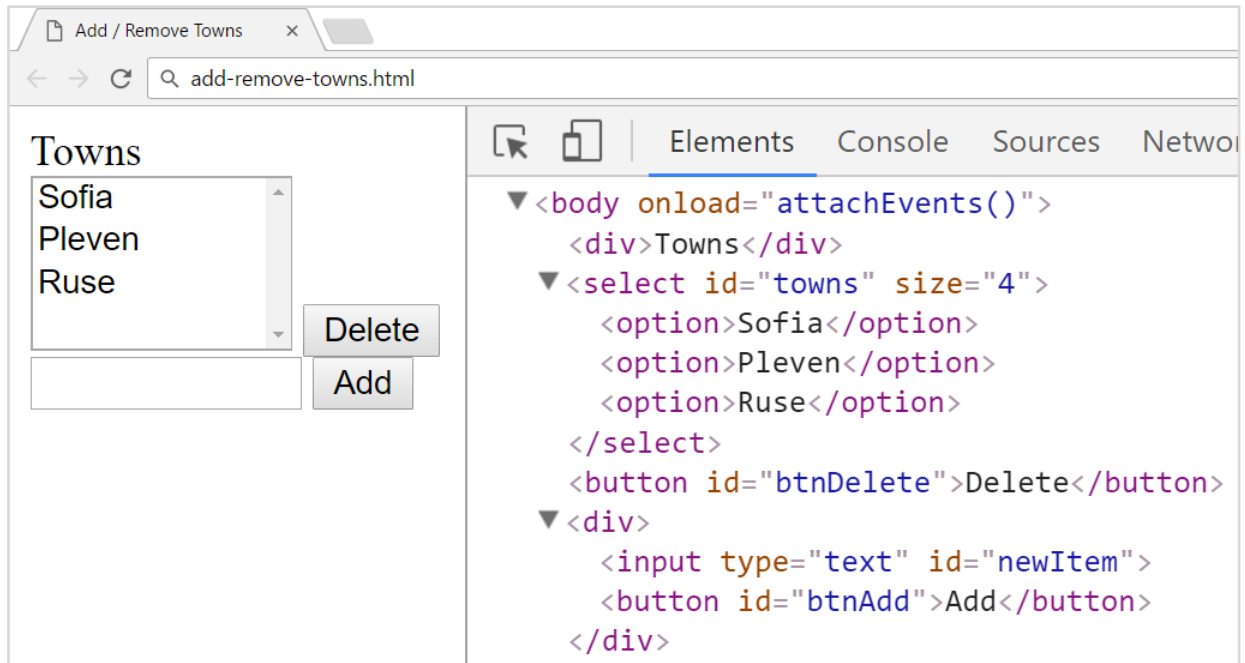
The screenshot shows the application after the "Delete" button was clicked. The "Towns" list now contains Sofia and Pleven. The "Delete" button is still highlighted. The browser's developer tools show the updated DOM structure:

```
<body onload="attachEvents()">
  <div>Towns</div>
  <select id="towns" size="4">
    <option>Sofia</option>
    <option>Pleven</option>
  </select>
  <button id="btnDelete">Delete</button>
```



The screenshot shows the application after the "Add" button was clicked. The "Towns" list now contains Sofia, Pleven, and Ruse. The "Add" button is highlighted. The browser's developer tools show the updated DOM structure:

```
<body onload="attachEvents()">
  <div>Towns</div>
  <select id="towns" size="4">
    <option>Sofia</option>
    <option>Pleven</option>
  </select>
  <button id="btnDelete">Delete</button>
  <div>
    <input type="text" id="newItem">
    <button id="btnAdd">Add</button>
  </div>
```



## Submission

Submit your **attachEvents** function as “JavaScript code (DOM unit tests)”.