Lab: jQuery

Problems for exercises and homework for the "JavaScript Advanced" course @ SoftUni. Submit your solutions in the SoftUni judge system at https://judge.softuni.bg/Contests/329.

1. Text from List

A HTML page holding a **list** of items and an **[Extract Text]** button is given. Implement the **extractText** function which will be called when the button's **onClick** event is fired.
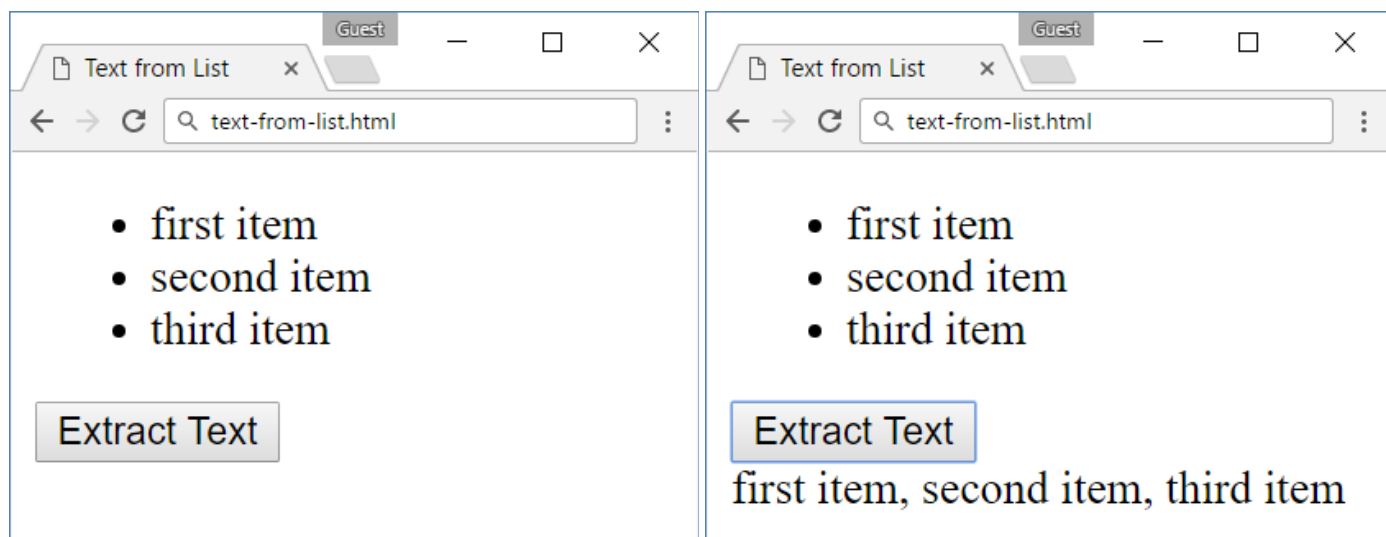
HTML and JavaScript Code

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

text.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Text from List</title>
    <script src="https://code.jquery.com/jquery-3.1.1.min.js" integrity="sha256-hVVnYaiADRTO2PzUGmuLJr8BLUSjGIZsDYGmIJLv2b8="   crossorigin="anonymous"></script>
    <script src="extractText.js"></script>
</head>
<body>
    <ul id="items">
        <li>first item</li>
        <li>second item</li>
        <li>third item</li>
    </ul>
    <button onclick="extractText()">
Extract Text</button>
    <div id="result"></div>
</body>
</html>
```

It comes together with the following **JavaScript** code:

extract-text.js

```javascript
function extractText() {
    // TODO
}
```

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Screenshot

2. Search in List

An HTML page holds a **list** of towns, a **search** box and a **[Search]** button. Implement the **search** function to **bold** the items from the list which include the text from the **search** box. Also print the amount of items the current search **matches** in the format **"<matches> matches found."**

HTML and JavaScript Code

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

list.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Search in List</title>
    <script src="https://code.jquery.com/jquery-3.1.1.min.js" integrity="sha256-
hVVnYaiADRTO2PzUGmuLJr8BLUSjGIZsDYGmIJLv2b8="   crossorigin="anonymous"></script>
    <script src="search.js"></script>
</head>
<body>
<ul id="towns">
    <li>Sofia</li>
    <li>Pleven</li>
    <li>Varna</li>
    <li>Plovdiv</li>
</ul>
<input type="text" id="searchText" />
<button onclick="search()">Search</button>
<div id="result"></div>
</body>
</html>
```
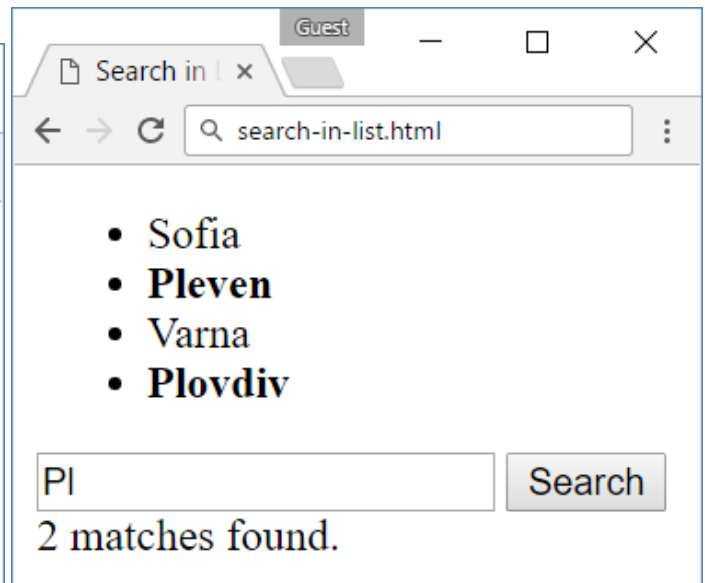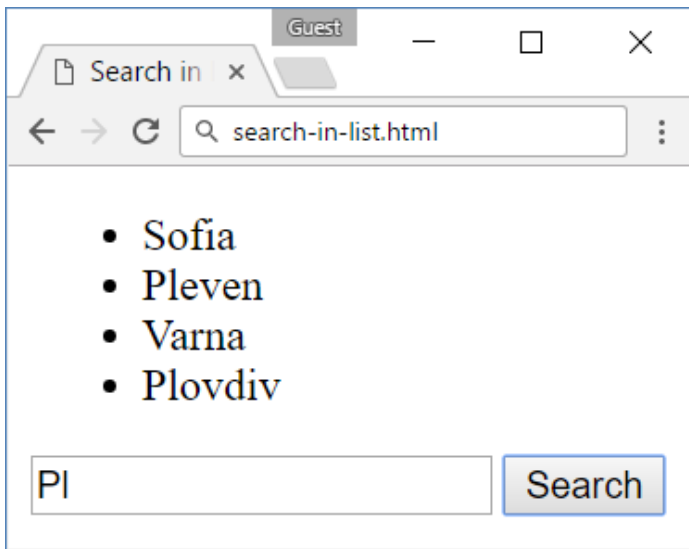
It comes together with the following **JavaScript** code:

search.js

```javascript
function search() {
```

```
    // TODO
}
```

Screenshots

3. Countries Table

You are given and HTML table holding **countries** and their **capitals**. You need to implement a **[Create]** link to create a new country and for each existing country implement **[Up]**, **[Down]** and **[Delete]** links to manipulate its position in the table.

The table needs to have the following entries when it's initialized (**add them when your functions starts**):

```
Bulgaria, Sofia
Germany, Berlin
Russia, Moscow
```

HTML and JavaScript Code

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

countries.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Countries Table</title>
    <style>
        td, th { background: #DDD; padding: 5px 10px }
        input[type='text'] { width: 60px }
    </style>
    <script src="https://code.jquery.com/jquery-3.1.1.min.js" integrity="sha256-
hVVnYaiADRTO2PzUGmuLJr8BLUSjGIZsDYGmIJLv2b8="   crossorigin="anonymous"></script>
    <script src="initialize-table.js"></script>
</head>
<body>
<table id="countriesTable">
    <tr>
```

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```
            <th>Country</th>
            <th>Capital</th>
            <th>Action</th>
        </tr>
        <tr>
            <td><input type="text" id="newCountryText" /></td>
            <td><input type="text" id="newCapitalText" /></td>
            <td><a href="#" id="createLink">[Create]</a></td>
        </tr>
    </table>
<script>$(() => initializeTable())</script>
</body>
</html>
```
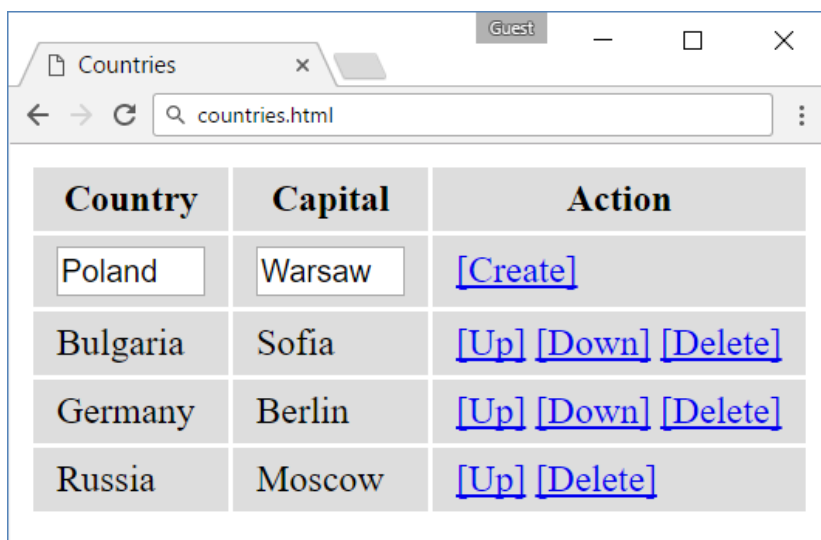
It comes together with the following **JavaScript** code:

initialize-table.js

```
function initializeTable() {
    // TODO
}
```

Screenshots

4. Link Buttons

You are given HTML holding some buttons. Implement the **attachEvents** function which should attach **click** events on the buttons. When a button is **clicked** it should **remove** the **class="selected"** attribute from the button that currently holds it and **add it to its own attributes**.

HTML, CSS and JavaScript Code

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

buttons.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
```

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```
    <link rel="stylesheet" href="link-buttons.css" />
    <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
    <script src="link-buttons.js"></script>
</head>
<body onload="attachEvents()">
    <a class="button">Sofia</a>
    <a class="button">Plovdiv</a>
    <a class="button">Varna</a>
</body>
</html>
```

It comes with this **CSS**:

link-buttons.css

```css
a.button {
    border: 1px solid #CCC;
    background: #EEE;
    padding: 5px 10px;
    border-radius: 5px;
    color: #333;
    text-decoration: none;
    display: inline-block;
    margin: 5px;
}

a.button.selected {
    color: #111;
    font-weight: bold;
    border: 1px solid #AAA;
    background: #BBB;
}

a.button.selected::before {
    content: "\2713\20\20";
}

a:hover {
    cursor: pointer;
}
```
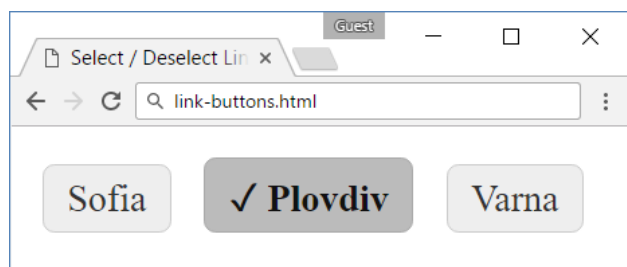
and the following **JavaScript** code:

link-buttons.js

```javascript
function attachEvents() {
    // TODO
}
```

Screenshots

Hints

- Use the **attachEventListener** function.

5. Selectable Towns

Create an HTML page listing **towns**, a town should be selectable. Clicking on a town should **select/deselect** it, a selected town should have the **data-selected** attribute added to it and its background color should be changed to **#DDD**. Also create a button **[Show Towns]** that prints the text **"Selected towns: "** followed by all selected towns joined with a **", "**.

HTML and JavaScript Code

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

towns.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Selectable Towns</title>
    <style>
        li {
            display: inline-block;
            cursor: pointer;
            padding: 10px;
        }
        ul { padding:0; }
    </style>
    <script src="https://code.jquery.com/jquery-3.1.1.min.js"></script>
    <script src="select-towns.js"></script>
</head>
<body>
<h2>Towns</h2>
<ul id="items">
    <li>Sofia</li>
    <li>Varna</li>
    <li>Plovdiv</li>
    <li>Bourgas</li>
    <li>Rousse</li>
</ul>
<button id="showTownsButton">Show Towns</button>
<div id="selectedTowns"></div>
<script>$(attachEvents())</script>
</body>
</html>
```

It comes together with the following **JavaScript** code:

select-towns.js

```javascript
function attachEvents() {
    // TODO
}
```

Screenshots