1 Performance

Exercise 1.1 *Rewrite the following JS function in order to increase performance.*

```
function initUI() {
  var bd = document.body,
      links = document.getElementByTagName("a");
      i=0;
  while(i<links.length){
     update(links[i++]);
  }
  document.getElementById("go-btn").onclick = function() {
     start();
  };
  bd.className = "active";
}
```

Exercise 1.2 *Implement a function that takes a function as an argument and returns a memoized version of that function, that is, a version of that function that chaches results.*

Exercise 1.3 *Consider the following program:*

```
function appendDataToElement(elm, data) {
  var a, li;
  for(var i=0, max=data.length; i&lt;max; i++){
      a = document.createElement('a');
  a.href = data[i].url;
  a.appendChild(document.createTextNode(data[i].name));
  li = document.createElement('li');
  li.appendChild(a);
  elm.appendChild(li);
  }
}
```

Suppose this function is used in the following way:

```
var ul = document.getElementById('myList');
appendDataToElement(ul, data);
```

Change this program in order to batch DOM changes. Apply both the techniques:

- *Hide the element before changing it*

- *Create a document fragment*

Exercise 1.4 *Write a script that processes all links in the page in such a way that every time the link is clicked, the script asks the user if he is sure that he wants to open the link and whether he wants to open the link in a new window, or in the current one. IMPORTANT: Use the delegate function of the jQuery library.*

2 Templating

Exercise 2.1 *Suppose a person object has the following form:*

```
 var p1 = {
     firstName: 'carla',
     lastName: 'sousa',
     age: 25,
     maritalStatus: 'single',
     favoriteBooks: ['lord of the rings', 'wuthering heights'],
     favoriteColor: 'red'
}
```

Write a script that, receiving as input an array of people, creates a list containing a short description of every person in the array in one pre-existing div with id divList. The short description of a person is a link whose text corresponds to: **lastName, firstName***. When clicking on the link, a long description of the person should be displayed in one pre-existing div with id divMain. The long description of a Person should be displayed as follows:*

```
<div style="background-color: favoriteColor">
  <table>
    <tr><th>First Name:             </th><td>Carla             </td></tr>
    <tr><th>Last Name:              </th><td>Sousa             </td></tr>
    <tr><th>Age:                    </th><td>25                </td></tr>
    <tr><th>Marital Status:         </th><td>Single            </td></tr>
    <tr><th rowspan="2">Favorite Books:</th><td>Lord of the rings</td></tr>
    <tr>                               <td>Wuthering Heights</td></tr>
  </table>
</div>
```

Exercise 2.2 *Use QUnit to write some simple texts to the previous example.*