Homework Assignment 3

jan.schulz@devugees.org
aemal.sayer@devugees.org

1. Email Address Validator

Create a function validateEmailAddress with one parameter *email* that returns true if the string *email* meets all of the following conditions.

1. it consists of only one @
2. the part left of the @
   - has maximum 32 characters, minimum 8 characters
   - does ***not only*** contain numbers, at least one character
   - does not contain $ or %
3. the part right of the @
   - Ends with either “.com”, “.de” or “.org” (the domain name)
   - The part between @ and the domain name is maximum 16 characters, minimum 6 characters

Hint: Use the functions split(), indexOf() and charAt() and the property length.

2. HTML List Generator

Create a function *listGenerator(numItems)* that returns a **string of HTML code** which contains an unordered list with numElements items. In each items there is the string “Index “ and the index number.

Example:

listGenerator(3) would return:

```
<ul>
    <li>Index 1</li>
    <li>Index 2</li>
    <li>Index 3</li>
</ul>
```

3. HTML Template

Given is the following website template:

```
var websiteTemplate =
    "<html>"
    +"<head>"
    +"<title>%TITLE</title>"
    +"</head>"
    +"<body>"
    +"<div>%MYLIST</div>"
    +"</body>"
    +"</html>";
```

Create a function ***createTemplate(title, numItems)*** that returns a string which is based upon *websiteTemplate* and replaces %TITLE with title and %MYLIST with ***listGenerator(numItems)***.

4. Code Generator

Given is the following function which returns a random number between 0 and max.

```
function randomNumber(max) {
    return Math.round(Math.random() * max, 0);
}
```

1. Create an array **alphabet** with all letters from a to z.
2. Create a function **generateCode(codeLength)** that returns a string with length of codeLength. In this string all characters are randomly chosen from alphabet.
3. Create an array **digits** with all digits from 0 to 9.
4. Modify **generateCode(codeLength)** that it returns a string that consists of random characters from **alphabet** and of random digits from **digits**.