

**Released on:** Nov 15, 2015

**Due on:** Sunday Dec 6, 2015 - 23:59

**Total Marks:** [80 marks]

## Objective

The objective of assignment 3 is to enhance your knowledge and skills to HTML5, CSS3, JavaScript and DOM. You are going to build up an HTML form to register users to a company website and perform client-side validations.

## Requirements

1. Create an HTML5 document (**index.html**), CSS3 file (**a3.css**) and a JavaScript file (**a3.js**) under a folder called **a3** of your Zenit account ([public\\_html/a3/index.html](http://public_html/a3/index.html)). Upload the provided JavaScript file ( **a3-countries.js**) to the same folder and embed the JavaScript file into the index.html file. You will be able to view your webpages using a web browser: **[directory structure: 1 mark]**

<https://zenit.senecacollege.ca/~zenitlogin/a3> or

<https://zenit.senecacollege.ca/~zenitlogin/a3/index.html>

(e.g., [https://zenit.senecac.on.ca/~int222\\_153a01/a3](https://zenit.senecac.on.ca/~int222_153a01/a3) )

Note that int222\_153a01 is just an example. You need to replace it with your own zenit login (from blackboard).

Enter your login for username and your password for password when prompted.

After every modification of your html file, click on the reload / refresh button on your browser to see the update.

2. In index.html, create a form (name: **form1**) to accept user's input for the user account. Set the title of the page with "Sign Up". This page (index.html) appearance should **mimic** the screenshot from the provided **a3\_screenshot.jpg** file. **[title: 1 mark]**

3. In the form, create the following form controls/fields as specified:

- Field "**Email**": type of email, autofocus and required. User needs the email address for logging in the website. **[3 marks]**
- Field "**Password**": type of password, required. **[2 marks]**
- Field "**Retype Password**": type of password, required. **[2 marks]**
- Field "**Country**": select element with options (dropdown menu), all country in the world must be on the list, required. Country names will be showed on the dropdown list; while the values for the options will be 2-letter country codes. The country names and country codes are available from the JavaScript object array **countries** in the provided file **top-level-domain-names.js**. You need to use the object array and HTML DOM to create the field "**Country**". Make **Canada** selected by default.

- Fields "**First Name**" and "**Last Name**": text, required, arranged in the same line. [6 marks]
- Field "**Job Title**": text, the user's current job title, required. [4 marks]
- Field "**Phone Number**": text, required. Must show telephone input format using placeholder. [2 marks]
- Field "**Your Company**": text, the company that the user currently works for, required. [3 marks]
- Field "**Address**": text, mail address, required. [2 marks]
- Field "**Address2**": text, second part for address. [1 mark]
- Field "**City**": text, city of the address, required. [2 marks]

- Field "Province":
  - When the user selects "Canada" in the Country field, the "Province" field should have the type of select with options (dropdown menu). Required. [5 marks]  
The items for the options are "-Select-" (as the top one) as well as the 10 provinces and 3 territories of Canada, required. The full names of provinces and territories will be showed up in the sequence of **Alberta, British Columbia, Manitoba, New Brunswick, Newfoundland and Labrador, Northwest Territories, Nova Scotia, Nunavut, Ontario, Prince Edward Island, Quebec, Saskatchewan** and **Yukon**; while the values for option elements must use standard 2-letter abbreviations. The 2-letter abbreviations are shown in brackets as follows, **Alberta (AB), British Columbia (BC), Manitoba (MB), New Brunswick (NB), Newfoundland and Labrador (NL), Northwest Territories (NT), Nova Scotia (NS), Nunavut (NU), Ontario (ON), Prince Edward Island (PS), Quebec (QC), Saskatchewan (SK)** and **Yukon (YT)**;
  - When the user selects a country other than "Canada" in the Country field, the "Province" field should have the type of text, required. [4 marks]
- Field "ZIP/Postal Code": text, the ZIP or Postal code of the address, required. [2 marks]
- Field "How did you hear about us?": type of radio button. A fieldset element is used to group these radio buttons. Give appropriate values for these radio buttons. [3 marks]
- The last field: checkbox, optional, showing whether the user allows to send email on Senada Products, Service and Events. [1 mark]
- In addition, the form must have both submit and reset buttons with the values of **Create Account** and **Reset**. [2 marks]

4. The form is required to use **post** method and submit to the post tester:

<https://formpost.azurewebsites.net/home/test>. The autocomplete feature should be turned on.

5. All form fields/controls should have id and name attributes; each of the form fields/controls should have a label tag apply to it if possible. Required fields should be lead by \*sign in red color.

[ form definition, syntax, required \*sign: 5 marks]

6. You are required to use CSS to style and mimic the page, including aligning form fields, font color/size, background, border, shadow, and etc. HTML tables are NOT allowed for aligning form fields in the assignment.

When a field is focused, the field border should be showed as green color; while user's input is invalid, the border should be changed to red color. [4 marks]

7. Some form fields need validation using JavaScript. The validation rules are as following:

- 1) Field "**First Name**" and "**Last Name**" [5 marks]
  - Must be present (cannot be empty string after trimmed)
  - Allowable characters
    - ✓ alphabetic characters lower case (a-z) upper case (A-Z)
    - ✓ apostrophe (')

- ✓ hyphen (-)
- ✓ Must have at least 1 alphabetic character (a-z) (A-Z)

2) Fields **“Password”** and **“Retype Password”** [5 marks]

- Password must contain both upper and lower case letters
- At least 1 number
- At least 8 characters long
- The value of the 2 fields must be identical unless one of them is an empty string.

3) Field **“Phone Number”** [5 marks]

- Must be present
- Must be in the format of (999)999-9999 ('9' here means digit only)
- The area code (999)999-9999 can't be all zeros
- The actual phone number (999)999-9999 can't be all zeros

4) Field **“Province”**: this field needs to be validated only when “Canada” is selected in the “Country” field and the “Province” is displayed as a dropdown menu. [5 marks]

- Must select one of these provinces or territories (not the “-Select-” is selected).

8. For the fields that require validation, your code should validate the field upon user makes change to the field. Show only one error message for a field at a time. Appropriate messages must be showed for the invalid field. For example: [2 marks]

The screenshot shows a web form with three input fields. The first field is labeled 'JOB TITLE' and is empty. The second field is labeled 'Phone Number \*' and contains the text '(000)255-5678'. This field is highlighted with a red border, and a red error message is displayed below it: '✗ The area code of phone number (999)999-9999 can't be all zeros.' The third field is partially visible at the bottom and is empty.

9. All field input must be valid before sending the form to server.

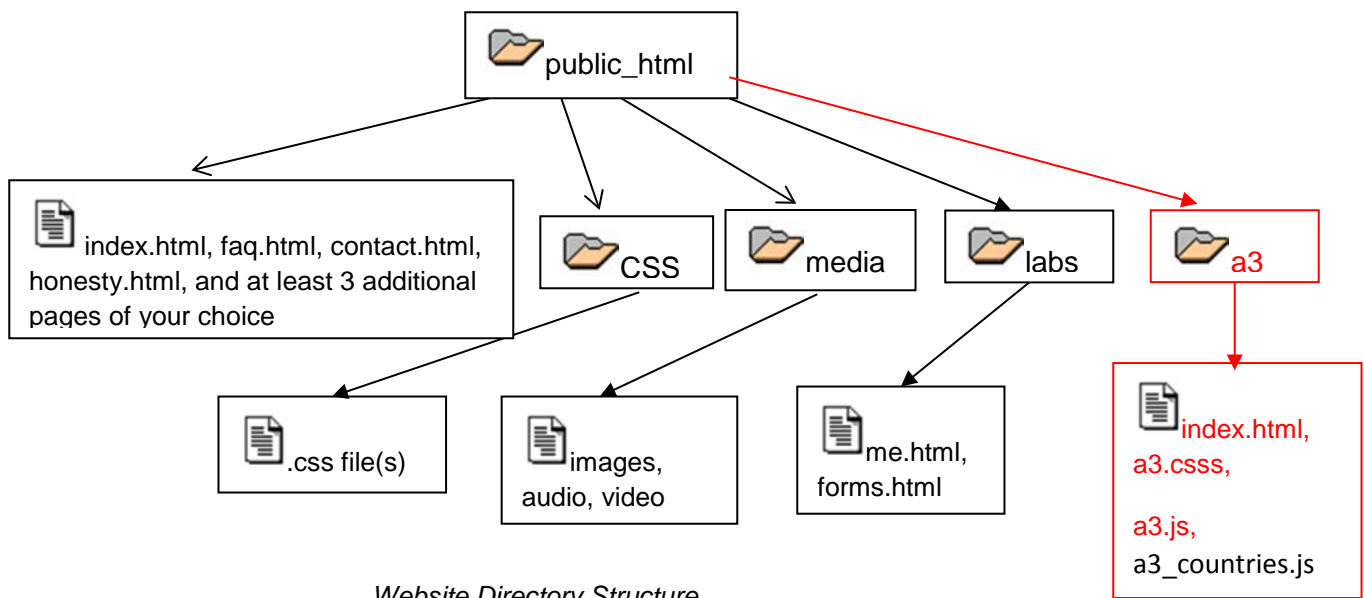
10. Your assignment must pass W3C HTML validation, CSS validation and be free of JS run-time Exceptions.

[3 marks]

- HTML validator: <http://validator.w3.org/>
- CSS Validator: <http://jigsaw.w3.org/css-validator/>

### Directory structure

With this assignment, the directory structure of your zenit account should be as follows



## Evaluation

The evaluation for this assignment will be based on adherence to all of the requirements outlined above including:

- Adherence to the coding standards.
- Quality of the JavaScript technical features/usage/function (syntax, readability, documentation and indentation).
- The content.
- The overall appearance, organization and presentation.

## Submission

Leave your work on zenit account under the assign 3 folder after completion; the instructor will check your work after the due date. No explicit submission, such as email and printout.

Leave your work untouched after completion/submission. You need to realize that every modification to the HTML, CSS or JavaScript files (while “saving”) is changing the date stamp of your work.

Late submissions will be penalized a 10% each school day, up to a maximum of 5 school days. After that, the best mark you may have will be 50% of the assignment value.

Note: you need to successfully complete all assignments to get the course credit.