

**UNIVERSITY OF REGINA**  
**Department of Computer Science**  
**CS 215 – Web & Database Programming**  
**Fall 2019**

**Assignment #3: Movie Database Website – Form Validation & Event Handling**  
**Due: Wednesday October 23, 2019 by 11:55 PM**

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This is the second in the series of assignments for building a private message board website. In the first of these assignments, you built an interface mock-up of the site. For this one, you will use JavaScript to implement the form validation and to support other types of interaction. In the subsequent assignments, you will design and implement the database in MySQL (Assignment #4), implement the back-end programming in PHP (Assignment #5), and implement AJAX-based updating (Assignment #5). Because the assignments build upon each other, you may wish to make modifications to your previous assignment submission before starting this assignment.

An important part of building an online application is verifying that the users have provided input in a format that is expected. Doing this on the client side allows the feedback to be provided quickly, and without the need to reload the Web page.

***You must implement this assignment using only DOM2 events.***

This assignment is divided into two different components:

**1. Form Validation (use submit and reset events)**

Your task is to implement JavaScript-based form validation. The following is a list of the pages, the form elements that are required, and the type of validation to be performed.

1. Login form (login page)
  - Email address (should be in a valid format e.g.: [a@a.ca](#))
  - Password (8 characters or longer, at least 1 number, at least 1 symbol)
2. Signup form (login page)
  - Username (cannot be empty)
  - Email address (should be in a valid format e.g.: [a@a.ca](#))
  - Password (8 characters or longer, at least 1 number, at least 1 symbol)
  - Both password and confirm password should match
  - Avatar (cannot be empty)
  - First name (cannot be empty)
  - Last name (cannot be empty)
  - If you have more fields, those fields must be in proper format and not empty.

3. Search bar (Home page)
  - Cannot be empty. (We do not want to send a query to the server if the search bar is empty)
4. Watch list name (Watchlist page)
  - Cannot be empty and 15 characters or shorter.

## 2. Dynamic Character Counter

Given the limitations on the number of characters in the watchlist name, it is also beneficial to give the user feedback on the number of characters in these fields, as well as the number of characters left. This should operate dynamically as the user types in the field on watchlist name form. Should the character limit be exceeded, the user should be permitted to continue typing, but it should be made apparent that the limit has been exceeded.

Since these pages will each be modified, you should ensure that they are still HTML5 compliant (following the syntax rules of XHTML), use CSS, and that there is a proper separation of the specification of the content from the specification of the presentation rules and the specification of the JavaScript code.

## Grading Scheme

This assignment will be graded out of 10 marks, based on the following criteria:

- 1 mark: Form validation on login form.
- 2 marks: Form validation on signup form.
- 1 mark: Form validation on search bar.
- 1 mark: Form validation on watchlist name.
- 2 marks: Dynamic character counter on message creation form.
- 2 marks: Proper use of DOM document manipulation and DOM2 event registration.
- 1 mark: Valid HTML 5 that follows XHTML syntax rules.

## Submissions

All of the files for this assignment should be posted to your personal website, as well as uploaded to UR Courses (a single zip file). A simple submission log file should be provided that includes your name, student number, class number, the URL of where you have posted the files, and a listing of the files you have submitted along with a short explanation of the purpose of each file. **Failure to provide these support documents will result in delays in the grading of your assignment and possibly a deduction in your grade.**

Late submissions will not be accepted. If there are exceptional circumstances that kept you from submitting your assignment on-time, you should consult with your instructor as soon as you are able to do so. See the syllabus for more details on the late policy for this class.