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| Form on page: signup.html | | |
| Field ID | Data Format or RegExp | Explanations |
| Email | /^\w+([\.-]?\w+)\*@\w+([\.-]?\w+)\*(\.\w{2,3})+$/ | It accepts e-mail address which matches general form of e-mail address.  \w+([\.-]?\w+)\* defines the expression form of the username in the email, before the @ sign. It starts with at least one word character (a-z, A-Z, 0-9 and \_), followed by more word characters or “.” or “-“.  Due to that, “.“ or “- “must follow by a word character (a-z,A-Z,0-9 and \_).  Therefore, the string cannot contain "..", "--", ".-" or "-.".  "@" sign matches itself.  After @ sign, \w+([\.-]?\w+)\* defines the expression form of the domain name, and it is the same pattern as the username mentioned above.  \.\w{2,3} defines “.” followed by two or three word characters.  Eg: ".com", ".co".  (\.\w{2,3})+ specifies that the above expression could occur one or more times.  Eg: ".com", ".co.ca", etc. |
| Password | /^[\w]{6,10}$/ | It accepts password which contains 6-10 letters only used English characters (case insensitive), numeric digits and ”\_”(underscore). |
| newsletterYes  newsletterNo | Yes, No | It will show the alert and return false when invalid data (That is the data except existing 2 choices “Yes” and “No”) was inputted. |
| S-signUpButton |  | It will check all input values from a user are valid or invalid. If there is any error, a user can not submit data to server. |
| From on page: login.html | | |
| Field ID | Data Format or RegExp | Explanations |
| Username | /^[\w]{1,15}$/ | It accepts username which contains 1-15 letters and only used English characters (case insensitive), numeric digits and ”\_”(underscore). |
| Password | /^[\w]{6,10}$/ | It accepts 6-10 letters and only used English characters (case insensitive), numeric digits and ”\_”(underscore). |
| L-loginButton |  | It will check all input values from a user are valid or invalid. If there is any error, a user can not submit data to server. |

In a signup page, we set 5 validations for each field by using Java script.

Firstly, user name field accepts minimum 1 letter to maximum 15 letters, a user can use only English characters, numeric digits and \_ (under bar).

Secondly, e-mail field accepts the e-mail address which matches defined regular expression. Username of the e-mail (before the @ sign) must begin with at least one word character (a-z, A-Z, 0-9 and \_), followed by more word characters or “.” or “-“. Therefore, “.“ or “- “must follow by a word character (a-z,A-Z,0-9 and \_). It means “.” or “-“ must follow by a word character(a-z, A-Z, 0-9 and \_). Due to that, the string can not contain “..”,”- -“, “.-“ or “-.”Also, the string must contain @ sign between user name and domain name. As for the domain name (after the @ sign), we set same pattern as the username of the e-mail mentioned above. Suffix must be 2 to 3 letters and It can be repeated one or more times.

Thirdly, password field accepts the password which is minimum 6 letters to maximum 10 letters, a user can use only English characters, numeric digits and \_ (under bar).

In the 3 fields mentioned above, if a user leaves a blank in the input form, red color alert will appear at bottom of the blank input form when a user presses the submit button and deletes all letters inside of each input field.

Fourthly, radio button filed to choose subscribe newsletter or not (there are two fields newsletterYes and newsletterNo, both are set same validation) accepts only the existing values “Yes” and “No”.

In this field, when a malicious user tries to send an invalid value to server, pop-up alert will appear on the screen and return false.

Finally, signup(submit) button field accepts only values which are proper. That is, all inputted values will be checked when a user pressed the signup button. If there is any error in the inputted values, a user is not able to submit data to server until all errors are fixed.

As for a login page, we set 3 validations for username field, password filed and login(submit)button field. All fields in this page are set same validation as validations which are set in a signup page.