

305CDE Challenge 2

This challenge should be attempted after you have attended the second lab and worked through Worksheet 2 (*Functions and Objects Part 1*). You may need to attend other labs to fulfil some of the requirements.

Guidelines

- Commit your solution to a new private project/repository in GitLab, and give it a sensible name: for example **305CDE Challenge 2**.
- Add the following members with *reporter* permissions under **Settings > Members** for your project:
 - Mark Tyers **marktyers**
 - Jianhua Yang **jianhua**
 - Colin Stephen **c0lin**
- You are free to commit changes to your code to improve it further at any point up to the assessment submission deadline.
- You may not manage to satisfy all of the requirements, but you should aim to do so.
- Extended requirements may require knowledge from future lab sessions to complete.
- Marking will be based on how closely you meet the requirements, whether you attempt any of the extended requirements, and how maintainable your JS code is.

Specification

Implement a user registration system (JS-based prototype).

Requirements

Minimal

- Provide a minimal user registration HTML and JavaScript page containing:
 - a form to input new user profile data
 - a list of currently registered users (initially empty)
- The profile form should contain:
 - Username
 - Name
 - Email address

- Password
- Age
- Form data should pass basic validation (done with JS)
- User profiles in the list should be stored as JavaScript objects with the appropriate properties and data types
- In addition to the form properties, each user should have a (hidden) unique ID number saved in their profile object
- When a user submits the form, JavaScript should update the list of currently registered users displayed
- There should be a button somewhere on the page to calculate the average age of currently registered users
- When the user clicks the button, the page should pop up an alert showing the average age of the users

Extended

- Give the user an option to sort the current user list by age or by name, and update the list accordingly
- Prevent two users choosing the same username
- Give the user an option to filter the current user list by age \geq a certain number, or age \leq than a certain number

Constraints

Use only HTML, JavaScript, and optionally CSS styling. Do not use any additional JS libraries.