CVWO Assignment Final Write-up

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Looking back at the past one or two months, I really appreciate this opportunity to get to learn and experience the full web development cycle. The experience of building this to-do manager, to me, has gone way beyond just an ordinary piece of assignment. Having had no programming background at all before coming to university, I wouldn't have imagined myself being the creator of a web application I can call my own. Well, here it is. Though far from being excellent, it stands as a humble yet significant first step of the long marathon ahead. The journey of giving life to even such a simple application abounds with struggle, frustration and exhaustion; yet is packed with fulfillment, joy and excitement. Most importantly, it's the acquisition of knowledge and realization of my own shortcomings that I value the most from this experience.

To say that a web app is made of blood, sweat and tears is an overstatement, albeit not far from the truth. After spending hours trying to get Ruby on Rails running, I was overwhelmed by the sheer volume and technicality of the materials I had to read in order to understand it. This brings in my first takeaway: perseverance. It may be a much cliché thing to talk about, but I find it really crucial to practice perseverance in problem solving. Sometimes, a small problem can bring any progress to a standstill. For example, I've tried to install a missing nokogiri gem for hours without success, experienced numerous problems in implementing a user sign-in system, and struggled with saving a newly created task to the database. All these times of frustration taught me that as long as I keep trying, keep thinking hard, and keep learning, I can eventually solve the problem at hand or find an alternative. Much time seemed to be wasted, but it all added to my learning as I understood different ways of doing things in the process of searching for answers.

Speaking of searching for solutions, I feel that I've learned tremendously about how to learn independently. Textbook questions are well-defined and limited in scope. In contrast, problems encountered during software development are wide ranging and intractable. Often times, the only way to obtain a solution is to read the guides or google. So, the abilities to identify the error, abstract it in words so as to google it, filter off irrelevant information, apply the information to solve problems, and be mentally prepared for repeated failures, are all essential to this learning process. This assignment has indeed propelled me to hone my independent learning skills, as I picked up Ruby, HTML, CSS, git and others from scratch. I'm far from being an expert, but I've certainly gained a considerable amount of knowledge to further my future learning.

Lastly, I would like to reflect on what I think I could have done better. Sometimes, I had the bad habit of trying out things mindlessly to make things work. Of course, there were times when I got lucky and hit the jackpot on the first try. But much more often, I would mess up important configurations and end up wasting more time. Also, blindly copying and pasting solutions from online without actually knowing what I'm doing adds little to my learning. In technical aspects, I still don't know many intricacies of Ruby on Rails, so I need to learn further to get a deeper understanding. I need to improve CSS styling and make the web page more responsive. I should separate styling from scripting by not using inline CSS styling in
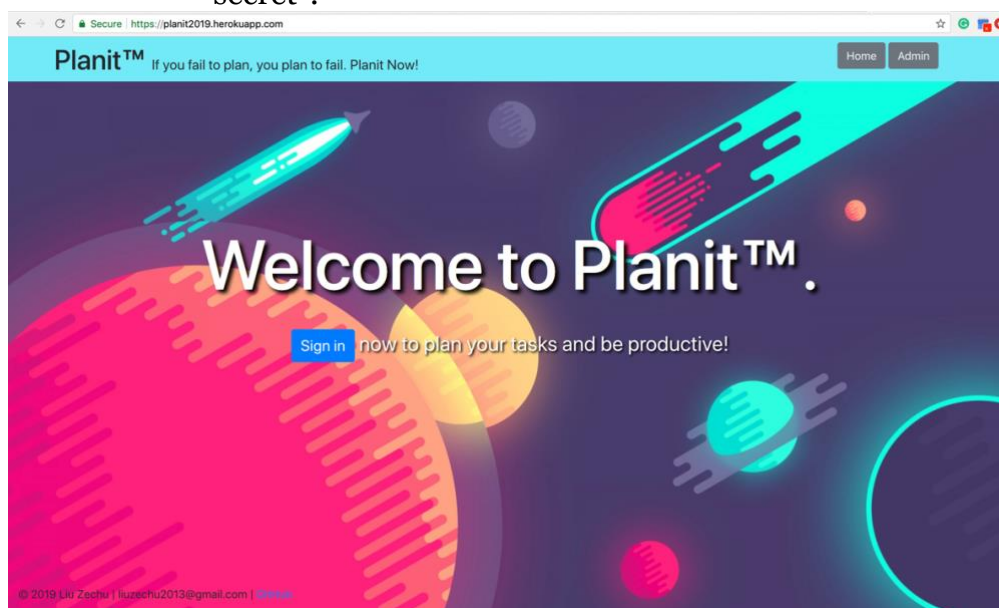
HTML. I would also like to learn AJAX in the future to add more functionality and better user experience to my web app.

In conclusion, I treasure this learning experience very much. Regardless of what this assignment can achieve, I'm glad that I took it up and I'll strive to do better.

User Manual of *Planit* To-do manager:

Website: https://planit2019.herokuapp.com/
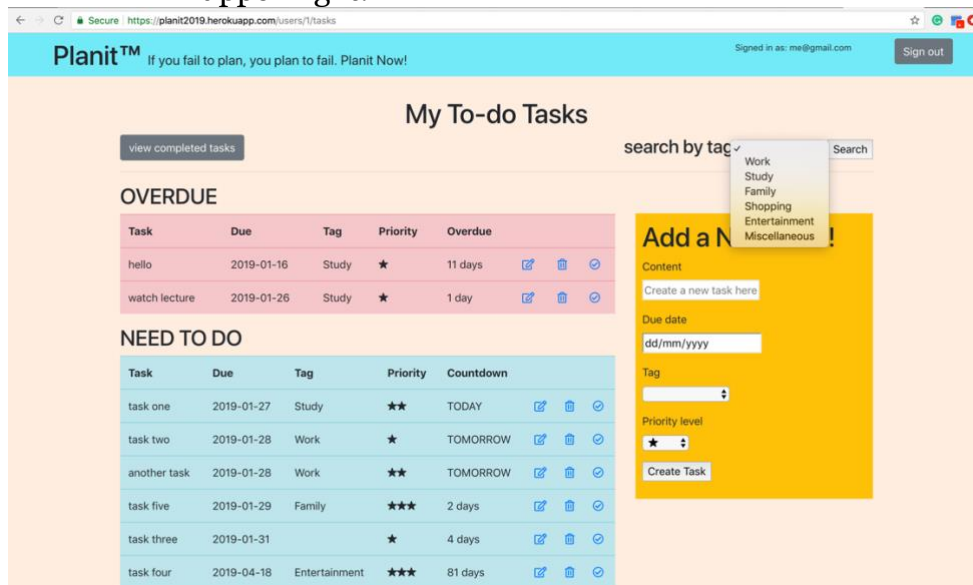
1. Login page:
   - Click "Sign in" to sign up to create a new account, or sign in using an existing account
   - Click "Admin" to view all users' emails and delete individual users. The Admin page is authenticated, with username: "admin" and password: "secret".

2. Admin page:
   - View and delete users
3. Sign-in page:
   - Sign in using user credentials
   - Can create a new account and reset password by clicking the relevant links
4. Main page:
   - Create a new task in the yellow box. Note: *Content* cannot be blank, and *Due Date* cannot be in the past. *Tag* is optional and includes *Work, Study, Family, Shopping, Entertainment and Miscellaneous*. *Priority Level* defaults to one star.
   - When a task is created, it is shown on the blue box on the left, with its various attributes and countdown to *Due Date*. To the right of each task, click the three icons to **edit, delete, mark-as-complete** respectively.
   - All uncompleted tasks are separated into *Overdue* and *Need to do* (non-overdue)

- User can view completed task by clicking "view completed tasks" on the upper left.
- User can search tasks with a particular tag using "search by tag" on the upper right.
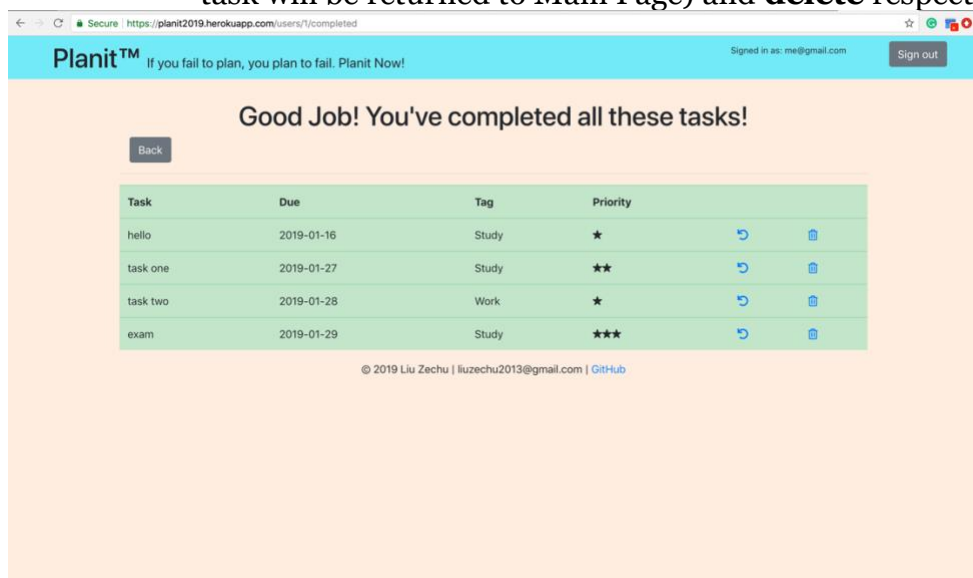

5. Edit page:
   - User can edit a task's attributes here.
   - Click update to save changes and return to Main Page.
6. Completed tasks page:
   - View all completed tasks that are not deleted.
   - The two icons following each task signify **undo** (mark-as-uncompleted, task will be returned to Main Page) and **delete** respectively.

7. Search page:
   - Shows all tasks with the matching tag.
   - Notifies the user when no matching task is found.