

# CSC309 Project Team #6

## *Team Members Info*

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## *Introduction*

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We are planning to build a web application that allows user to upload and download past exam papers, and it also encourages users to exchange their thoughts and solutions online.

The three main purposes of our project are:

- Collect past tests and make them more publicly accessible.
- Simplify the process for students searching past tests online.
- Encourage users to collaborate and improve solutions together.

Our target users are university/college students. Users can view/download past exam papers for free and get formal solutions or informal collaborative solutions from peers.

## *Feature Specifications*

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Required features:

a) User Profiling

- Each user has its own profile page. Regular users can only edit their own profiles and are allowed to view others' profiles.
- Each user can upload an avatar, which is displayed on the profile page.
- Admin can change profiles of any given user who has been registered and stored in our database.

b) User Authentication and Authorization

- Users are able to sign up with a unique username and a non-trivial password.
- Users can log out at any view of our web application.
- If the login username is associated to the admin, then all privileges are granted to this user. (Specific privileges will be discussed in Admin section)

c) Data

- User data: username, password (hash), faculty, year of study, avatar and other profile info
- Course data: course code and course name
- Document data: corresponding course code, professor name, year, type (midterm/final) and document content (PDF URL).
- Comment data: corresponding document id and user id, and comment context.

They are all dynamically retrieved from our web server based on the query that each user makes.

d) Views (\* means index page, and figures are at the bottom of this document)

- \*Searching page (Figure 1)
- Course info and filter page (Figure 2&5)
- User profile page (Figure 7)
- Sign in and sign up page (Figure 3&4)
- Past test and comments page (Figure 6)

e) Admin

- Change the password of a regular user.
- Add and delete a user.
- Edit any user's profile.
- Modify or delete documents uploaded by regular users.
- Modify or delete comments created by regular users.

Additional features: (To be implemented)

1. Use search bar to quickly find past exams by specifying course code in a specific format, like CSC309 or csc309.
2. Apply additional filters on the past exam search result, such as exam type (midterm/final), professor name and year.
3. Upload past exam papers to our web server and categorize them into the corresponding course page.
4. Adding collaborative comments side by side with the PDF document.

Other feature thoughts: (Rough idea, if time permits)

1. Use email address as username. Send verification email when a user wants to sign up. This could potentially prevent spam/fake users.
2. Collaborative comments are only visible to signed in users.
3. Mixed data are all stored in a single database. This could be improved by separating dynamic and static data. For example, retrieving avatars and PDF files from a CDN.

## *User Interactions (A guide on how user interacts with the data)*

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When a user comes to our website, he/she can find a search bar with format hint like “CSCXXX” in our index page. After entering course code in a similar format and pressing Enter key, the user will be guided to another page. Let’s call this page as “Filter”. Page Filter provides users with more specific options to accurately find a specific past exam paper. The filter types include years, terms, professor names etc. The filter results will be shown as a list of past tests uploaded by a user with links to the actual PDF content. After clicking on any of these PDF files, users will be redirected to a new view which contains the exam paper and solution they just selected. What’s more, users can add collaborative comments to the solution and download the solution if necessary.

## *Comparison and Highlighting Features*

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The highlighting feature of our website is the comment collaboration. Users can add their own thoughts on whether the current reference solution is correct or not. That is, most of the solutions on our website are all collaboratively written by users as an unofficial solution or even rough ideas. Compared with other existing websites such as Oxdia, this acts as a new feature extension, which can further improve user experience of our website. Moreover, another benefit is that there is no credit limit for download since most of the similar websites require credit to do so.

## *Our Source of Data*

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Currently, our web application doesn’t need to pull much data from an outside source since all data can be created and collected by users. Later, we may consider pulling some data from UofT calendar and/or RateMyProfessors to add more functionality to our app. Since for one course, instructors can be different depending on school terms, and papers can be categorized into different years and terms too. However, we will focus on utilizing the data generated by users for now.

## Sketches of Views

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A hand-drawn sketch of a web form. At the top left, there is a small rectangular box labeled "Name". At the top right, there is a user icon followed by the text "Login". In the center of the form is a large rectangular input field. Inside this field, on the left, is a magnifying glass icon, followed by the text "Course Name (ex: CSC309)". To the right of the input field, there is a handwritten note with an arrow pointing to the field: "Both lower case and upper case are accepted".

Figure 1

A hand-drawn sketch of a web form. At the top left, there is a small rectangular box labeled "Name". At the top center, there is a search bar with a magnifying glass icon. At the top right, there is a user icon followed by the text "UserName" and a power button icon. Below "UserName" is a handwritten note with an arrow pointing to the power button: "sign out". In the center of the form, there is the text "Result: CSC309". Above the underlined text, there is a handwritten note with an arrow pointing to it: "always uppercase". Below the result text, there are three dropdown menus. The first is labeled "Year" with a downward arrow; below it is a handwritten note with an arrow pointing to it: "Dropdown Menu". The second is labeled "Type" with a downward arrow; below it is a handwritten note with an arrow pointing to it: "Final or Mid-term". The third is labeled "Prof. Name" with a downward arrow.

Figure 2

A hand-drawn login form within a rectangular frame. At the top, the word "Name" is written in a cursive font. Below it is a rectangular input field. Underneath that is the label "ID:" followed by another rectangular input field. Below the ID field is the label "Password:" followed by a third rectangular input field. At the bottom of the form are two elements: a rectangular button labeled "Log in" with a small mouse cursor icon pointing at it, and a text link labeled "Register?" with a wavy underline.

Figure 3

A hand-drawn registration form within a rectangular frame. At the top left, there is a small rectangular box containing the word "Name" in a cursive font. To the right of this box is a large empty rectangular area. In the center of this area is a smaller rectangular box titled "Register" in a cursive font. Inside the "Register" box, there are three input fields: the first is preceded by the label "ID:", the second by "Password:", and the third by "Confirm Password:". Below these three fields is a rectangular button labeled "Submit".

Figure 4

Name

User/Name

CSC309

Upload!

2017

Final

Prof. xxx

1. Solution 1.pdf

User: a12b

2. Solution 2.pdf

User: c345

3. Solution 3.pdf

User: 427h

4. Solution 4.pdf

User: 123a

Figure 5

Name

Admin

Comments

ab13: Great Answers!

→ Delete

4afe: 2(a) is wrong, it should be 328.

→ Delete

37bc: Why?

→ Delete

4afe: Because xx ... ~-xxx

→ Delete

Q277 3 has multiple solutions

→ Delete

UofT

2017 Final

↓

Figure 6

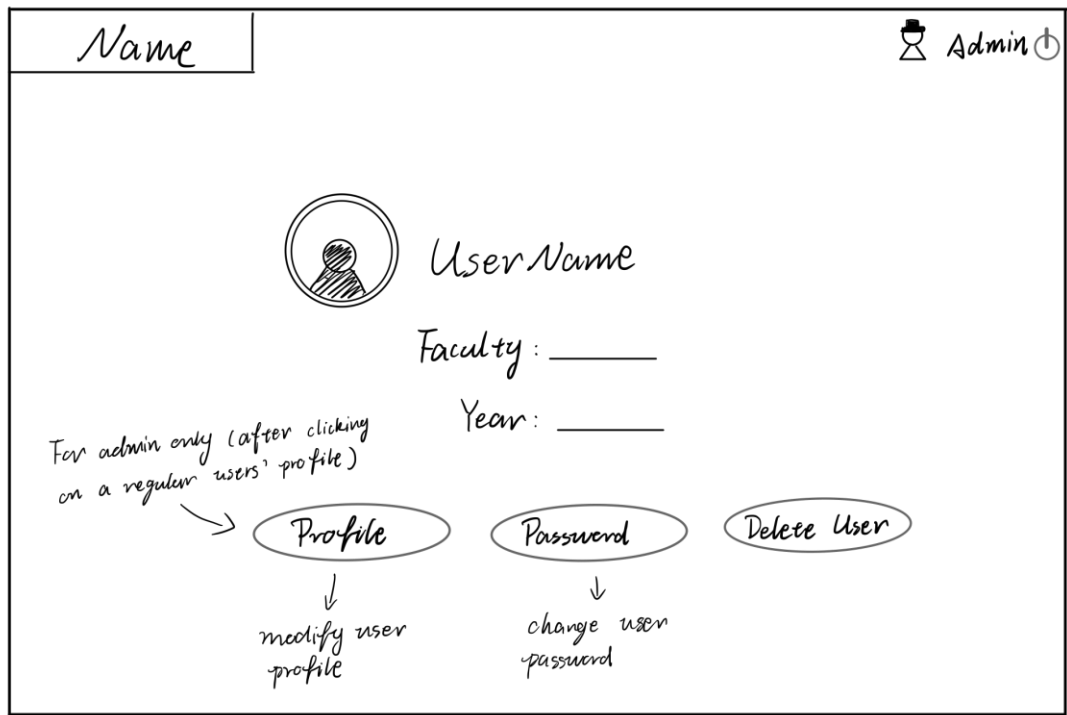


Figure 7