

Final Report

CWRU Resume Review Web App

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1. Background

1.1 Problem

Resume is the first phase of job application. A good resume demonstrates the student's professional competence and brings the students career opportunities. For students at CWRU, the top choices for resume review are: 1) schedule appointments with the consultants at Career Office to discuss the resume; 2) exchange resumes with peers to obtain feedback. The first choice brings in the opinions from experienced people who have reviewed tons of resumes. However, the consultants at Career Center are from various majors, which means they may not have enough technical knowledge to provide technical feedback. The second choice provides the major-matched feedback, but since most of the peers do not have enough working experiences, they may not know what HRs usually expect on the applicants' resume. Therefore, it is difficult for students to get holistic feedback on their resume.

1.2 Our Solution

The goal of this project is to provide a platform for students and alumni at CWRU to share their intelligence and resources and help each other improve career paths in a convenient way. People who are professional in their fields will provide advice to the job seekers' resume in order to improve their competitiveness. The web application solves the problem in section 1.1 by gathering knowledge from both students, alumni, and consultants.

To achieve this goal, we designed the application according to the following diagram:

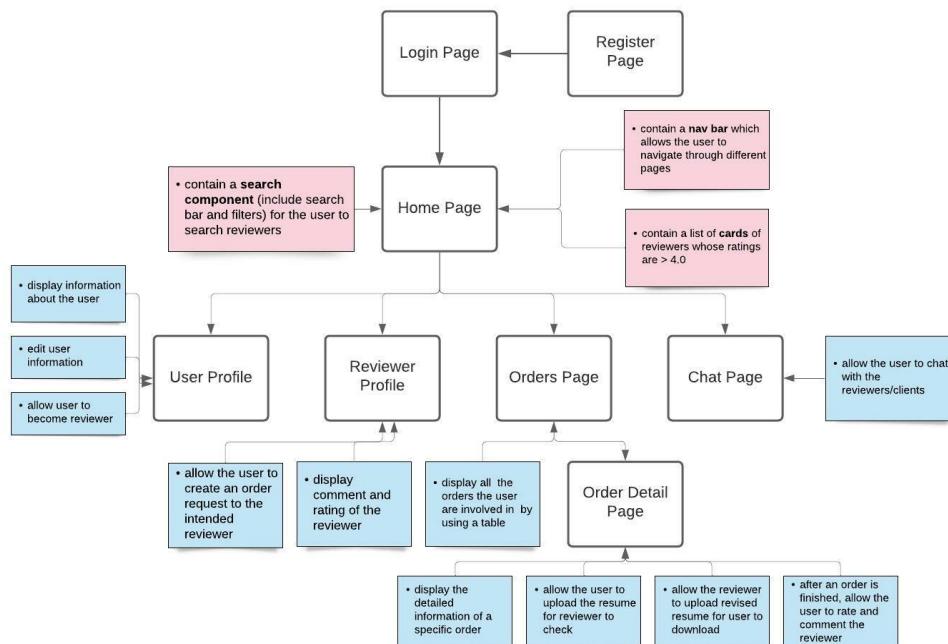


Figure 1: Project Page Design

Note the **white rectangles** represent the pages we are going to implement (in html), the **pink notes** indicate the separate components we are going to implement (in css), and the **blue notes** are the functionalities of each page.

1.3 Database Design

The database of the resume review system is shown in Figure 2:

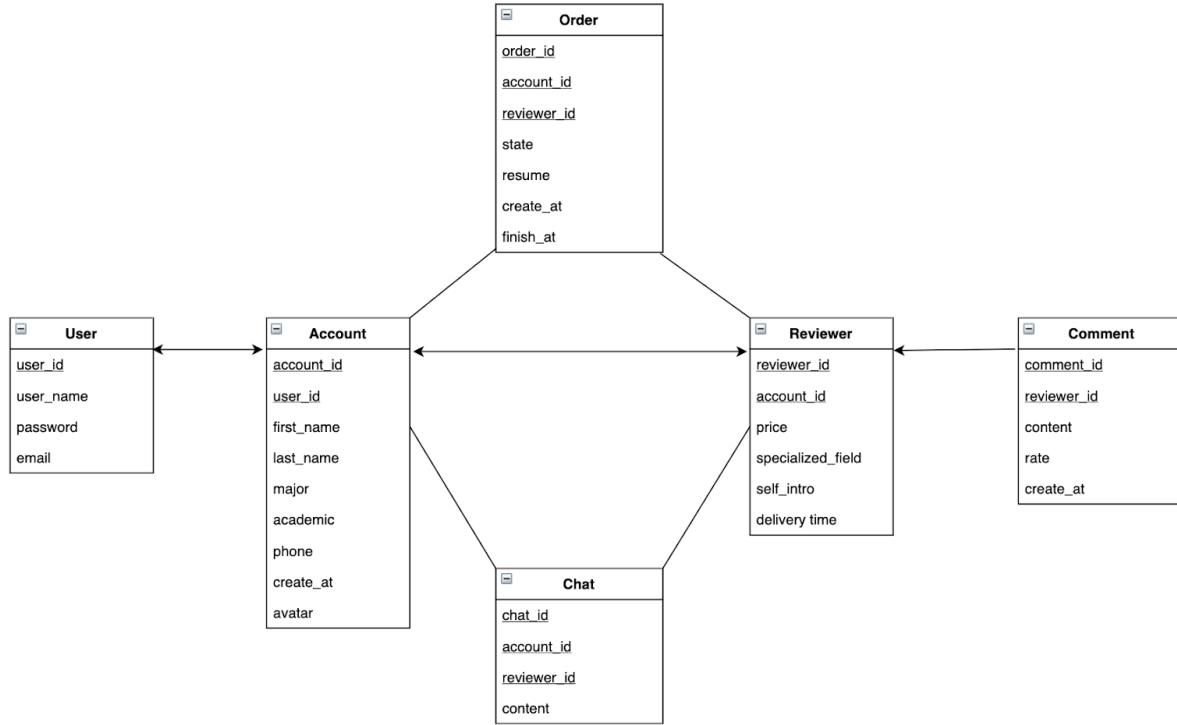


Figure 2: Database Design

To store the information in a resume reviewer system, we built role models to present the user, account, and reviewer. Considering the security and confidentiality, we import the user model from Django's authentication package, which helps record the encrypted password. The Account model is built on User by adding the user's basic information, and the Reviewer model is further built upon the Account model with extra features such as price and self introduction. All these three models have a one-to-one relationship. The primary keys are their id numbers.

The Comment model works as a partial participation of Reviewer, since it mainly records users' comment, as well as rating, and will be deleted if the reviewer no longer exists. Order and Chat can be viewed as many-to-many relationships between accounts and reviewers because an account can order many times and send multiple messages to the reviewer, and so do the reviewers.

1.4 Technical Approach

To achieve the goal mentioned in section 1.2, we use Django and Ajax for the backend development, HTML/CSS and bootstrap for the frontend development, and SQLite for database.

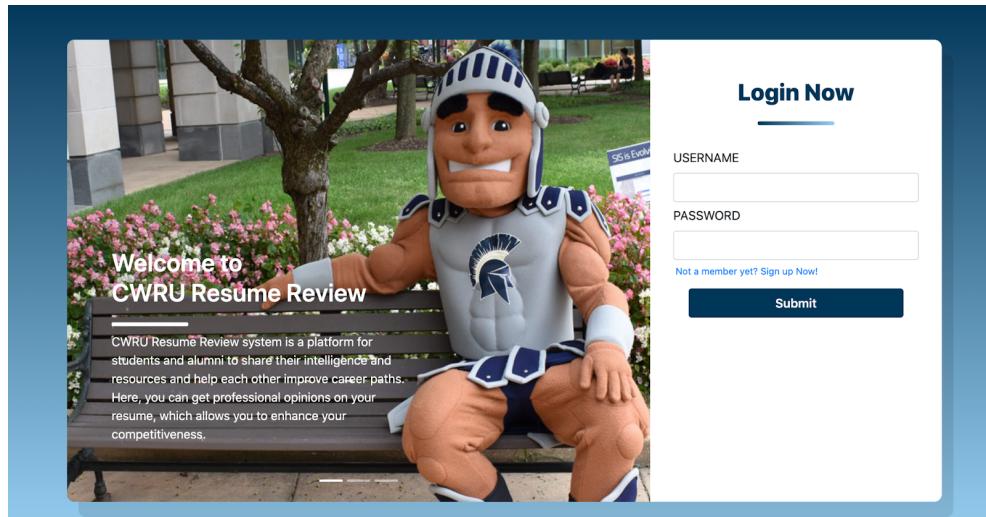
2. Design Specifications and Requirements

Page	Functionality	Status
Signup	Allow users to create accounts by entering username, email address, and password.	Completed
	Only allow email addresses end with @case.edu to create accounts.	Completed
	Register user information into the database after clicking on the Submit button.	Completed
Login	Allow users to log into their accounts if the information they entered matches the information in the database.	Completed
Homepage	Allow users to search reviewers by their names.	Completed
	Display reviewers with ratings higher than 4.0 by default.	Completed
	Display reviewers' information by card, which allows them to click on the View button to see more information	Completed
Reviewer Profile	Allows the users to place orders with the reviewer.	Completed
	Allows the users to chat with the reviewer.	Completed
	Displays information of the reviewer.	Completed
	Displays the comments of the reviewer.	Completed
Order History	Display the basic information of placed orders.	Completed
	Allow user to go to the order detail page for each order	Completed
Order Detail	Display the customer, reviewer, order number, start time and completion time for the order	Completed
	Track the order status.	Completed
	Allow users to upload and download files.	Completed
	Allow the reviewer to accept, cancel and complete the order.	Completed
	Allow customers to cancel orders when the order is pending and rate the reviewer when the order is completed.	Completed
User Profile	Display user information from the database.	Completed

	Allow the user to edit his/her user information.	Completed
	Allow the user to become a resume reviewer.	Completed
	Allow the user to change his/her avatar.	Completed
Chat	Display other users who contact the user.	Completed
	Display the chatting history with other users.	Completed
	Allow users to send messages with others.	Completed

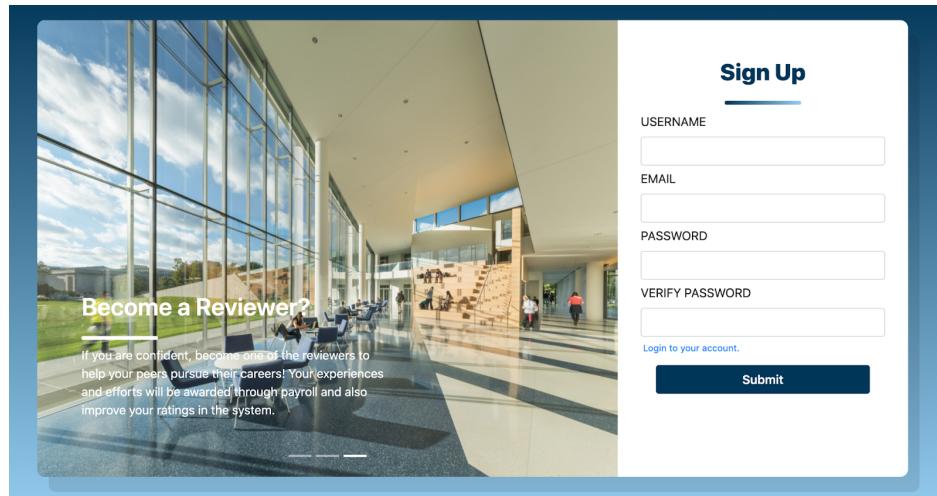
3. Final Project Demonstration

3.1 Login Page



The login page allows the users to login into the web application if their credentials match the credentials stored in our database.

3.2 Register Page



The Register page allows the users to create new accounts with the username, email address, and password. Since this resume reviewer system is only applied within Case Western Reserve University, the email needs to belong to CWRU.

3.3 Homepage

A screenshot of the homepage of the RESCUEME platform. At the top, there is a navigation bar with links for "Home Page", "Order History", "Chat", "User Profile", and "Logout". Below the navigation bar is a large banner image of a tree with pink blossoms. Overlaid on the banner is the text "Our Protocol" and a sub-instruction "Upload your resume and find matched students or alumni with experiences to provide professional suggestions.". Below the banner is a search interface with dropdown menus for "Name", "Major", "Standing", and "Price", and a search button. At the bottom, there are three cards, each featuring a circular profile picture and a name: "James Bond" (rating 0.0), "Harold Finch" (rating 5.0), and "Tony Stark" (rating 5.0). Each card also includes a brief description and a "VIEW" button.

The homepage displays the reviewers' name, rating, and description in cards. By default, the homepage will display reviewers with ratings higher than or equal to 4. By clicking the "View"

button on each card, the user will be redirected to the reviewer's profile in order to see more specific information about the reviewer. The users can also search for reviewers with specific major, academic standing, and price range. Our web application also supports search by name.

3.4 User Profile Page

Personal Details

First Name	James
Last Name	Bond
Phone Number	1920111133

Academic Info

Major	Theater Arts
Academic Standing	Graduate

Reviewer Info

Self intro	British professional theatre actor, provides all kinds of theatre resume advising.
Price	20.00
Delivery Time	Two weeks

[Edit](#)

Personal Details

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Reviewer Info

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[Cancel](#) [Update](#)

The User Profile page displays the personal details and academic information, including email, first name, last name, self introduction, phone number, major and academic standing, which are entered by the user when signing up. Users can edit all of their profile information on this page, and they can choose to apply for a reviewer in the Reviewer Info section.

3.5 Reviewer Profile Page

The screenshot shows the Reviewer Profile page for a user named Tony Stark. At the top, there is a navigation bar with links to Home Page, Order History, Chat, User Profile, and Logout. Below the navigation bar is a large profile picture of Robert Downey Jr. as Tony Stark. To the right of the profile picture, there is a section titled "#About Me" containing a brief bio: "Quantum physics research and mechanics. Glad to help with any STEMS related resumes. Working experience: Stark Industry CEO (retired)". Below this is a section titled "#Comments" showing two reviews from a user named Peter Parker. The first review is dated Nov. 25, 2021, at 7:03 p.m., with a rating of 5.0 stars and the comment "Wonderful Sir!". The second review is dated Nov. 25, 2021, at 8:05 p.m., with a rating of 5.0 stars and the comment "Can you call Stark Industry to hire me please;)". On the left side of the profile page, there is a summary of Tony Stark's information: Academic Standing: Senior, Major: Physics, Price: \$200.00, and Delivery Time: Three weeks. Below this summary are two contact links: an email link (aes42@case.edu) and a phone number link (2008050203). At the bottom of the profile page are two buttons: "Place Order" and "Chat with Reviewer".

The Reviewer Profile page displays the information about the reviewers, including the email address, phone number, price, delivery time, major, academic standing, and self introduction. It also displays the comments from their previous customers. The reviewer profile contains two buttons: 1) Place Order, which creates an order request between the user and the reviewer; 2) Chat with Reviewer, which creates a communication channel between the user and the reviewer.

3.6 Order History Page

The screenshot shows the Order History page. At the top, there is a navigation bar with links to Home Page, Order History, Chat, User Profile, and Logout. Below the navigation bar is a section titled "Order History". A dropdown menu next to this title shows "Orders sent". The main content area is a table with columns: Reviewer Name, Date, Status, Price, and Detail. There is one entry in the table: a row for a user named Tony, with the date Nov. 25, 2021, 3:12 p.m., a status of "Pending", a price of \$200.00, and a "Detail" button with a right-pointing arrow icon.

Users and reviewers can both check their sent or received order in this page. For users, they can see their placed orders with reviewers' names, created dates, price and status, including pending,

accepted, rejected and completed. They can see the order details by clicking the arrow under the Details column, and go to the Order Detail Page.

Order History				
Customer Name	Date	Status	Price	Detail
 Sheldon	Nov. 25, 2021, 5:27 p.m.	● Completed	\$20.00	>
 Sheldon	Nov. 25, 2021, 5:27 p.m.	● Cancelled	\$20.00	>
 Peter	Nov. 25, 2021, 7:54 p.m.	● Completed	\$20.00	>
 Tony	Nov. 25, 2021, 7:55 p.m.	● Completed	\$20.00	>

For reviewers, they can check the received orders by switching the filter on the top right corner. They can also see the orders sent by users. Reviewers can also place orders to let other reviewers view their resume, and in this case, they will be the same role as a normal user.

3.7 Order Detail Page

Orders Details

Order ID: #7

Back

Customer	Tony Stark	Reviewer	James Bond
Start Time	Nov. 25, 2021, 7:55 p.m.	Complete Time	Nov. 25, 2021, 7:57 p.m.
Status	Completed	Price	\$20.00



Rate the Reviewer

Documents

Choose File No file chosen... Upload

The Order Detail Page provides information about the name of the customer and reviewer, order started time, completed time, status, and price. There is a timeline which shows the 4 steps in completing the order. Users can choose to cancel the order and reviewers can reject the requested

order. Users can upload their resume in the Documents section, and then reviewers can download and review.

3.8 Chat Page

The screenshot shows the RESCUEME application's chat interface. At the top, there is a dark header bar with the logo 'RESCUEME' and navigation links for 'Home Page', 'Order History', 'Chat', and 'User Profile'. On the far right of the header is a 'Logout' button. Below the header, the word 'Chat' is centered above a white message list area. The message list shows two users: 'Harold Finch' and 'James Bond'. The messages are timestamped and include the user's name, the message content, and the timestamp. At the bottom of the message list is a blue input field labeled 'Type your message' and a blue 'Send' button.

Time	User	Message
11/29/2021, 17:23:53	Harold Finch	Hi, how are you? How is the resume coming along?
11/29/2021, 17:25:29	James Bond	Hi, I'm good.
11/29/2021, 17:25:49	James Bond	The resume has already finished.

The chat page provides the access for users and reviewers to negotiate on the order details including the price and specification on the resume. The left hand side of the page provides the users with the contactors. The contacts include the reviewers who review the resume of the order and the other users whose resume is reviewed by the user. Users can click on the contactors to get the message history on the right hand side. The chat message, in the chat part on the right hand side of the page, is composed by the sending time, message information, and the username who sends the message. Users can scroll through the message to check all the messages with timestamps.

4. Individual Report

4.1 Frank Xu

4.1.1 Project Responsibilities

The team decided to make a resume helping website and share the idea of the necessary components and designs. Get familiar with web design languages like html. Create test accounts and run tests.

4.1.2 Achieving Objectives

Made the use profile page but not used. Create accounts, run tests with different approaches and some editing works.

4.1.3 Issues

Not fully comprehensive the html language, so the style of the profile page I designed was very different from the other parts of the web pages, therefore it had to be abandoned.

4.1.4 Lessons Learned

Learned basic web design knowledge and html language. Understand more about web-page and front-end development.

4.1.5 Insights

Teammates are really necessary and teamwork is crucial. They can literally help with something I don't understand step by step. With different specialists, a project can become very easy to complete.

4.2 Marcus Lin

4.2.1 Project Responsibilities

I am mainly responsible for the backend and database in the CWRU Resume Review System. I designed our database using the ER diagram and implemented it using Sqlite3 embedded in the Django framework. And I collaborated with my teammates to implement features of the order, profile, and home page backend according to the frontend requirements, like placing orders in the database, transferring back requested information, and searching for qualified reviewers after filtering.

4.2.2 Achieving Objectives

My objective in this project is to learn the Django framework to build the backend since I have no experience using python for backend development. And I also aim to learn to collaborate with the whole team in the full-stack development context and integrate the front and back ends.

4.2.3 Issues

The only experience I had for backend development before this project was Springboot, which belongs to the Java backend development, and Django has an entirely different structure to handle the requests and manage the database, so I spent much time learning and adapting the new framework. And in terms of the database, since several identities could be applied to one account, I need to deal with the relationship between models carefully.

4.2.4 Lessons Learned

After completing the project, I learned backend development with Django framework and sqlite3 as its embedded database. I get to know the way Django handles the requests and is involved in full-stack development.

4.2.5 Insights

The database design is critical as it can save much coding when managing the data, and the integration is also crucial in the full-stack development due to the disparity between the front and back ends. Good communication and knowledge about both ends can boost the development process.

4.3 Ningjia Huang

4.3.1 Project Responsibilities

In this project, my main responsibility is to collaborate with my teammates to develop the frontend of the CWRU Resume Review System. Specifically, I developed the frontend of the homepage and the reviewer profile page. The homepage includes a sliding picture window component which provides description of our website, and the cards which display the information and allows the user to go to the reviewer profile page. The reviewer profile page displays information about the reviewer and the comments from the customers. I also implemented some backend functions.

4.3.2 Achieving Objectives

The objective for me in this project is to get a more holistic view of full stack development and get familiar with some of the tools being used in the process. I have never used Django before, so this experience allows me to learn the structure of Django development. The project also helps me to reinforce some HTML skills.

4.3.3 Issues

Since I did not learn HTML/CSS systematically before, each time when I tried to implement some features, I needed to look up a lot of documents in order to make them fully functional. Moreover, as I have not used Django before, the connection between backend and frontend has been a hard process. When I encountered some problems or some of the outputs were not satisfactory, I needed to go to the backend, understand the structures and logics, and fix the problems.

4.3.4 Lessons Learned

Throughout this project, I got a better understanding of the techniques used for full stack development, especially of HTML/CSS and bootstrap as my main responsibility is the frontend development.

4.3.5 Insights

The collaboration process is much more interesting than writing code by myself. With the common goal of developing a bug-free, user-friendly web application with pleasing GUI, every member struggled to do the best in his/her own part. It is great to work with such a collaborative team.

4.4 Sherry Zhao

4.4.1 Project Responsibilities

In this project, my main responsibilities is to design the frontend of CWRU Resume Review System. I implemented the frontend of the login page, register page, order history page, and order detail page.

4.4.2 Achieving Objectives

The achieving objective is to develop a full stack web project collaborating with other team members and get familiar with Django. I need to improve my frontend skills to complete my responsibilities in this project.

4.4.3 Issues

I'm not familiar with Django, so understanding what I should implement and how it will integrate with the backend of our project is the main part I need to learn in this project. Also, I only had a little experience with jquery before, so I need to learn the usages of jquery to complete my frontend design.

4.4.4 Lessons Learned

My techniques with HTML/CSS have improved, and I learned some jquery techniques which I never used before this project. I searched and analyzed many templates of the website's frontend and learned the strategies to make the frontend of the page look neater and more beautiful. I also learned some simple integration between frontend and backend.

4.4.5 Insights

Software development is designing a project as a whole. Some parts of the project, like frontend and backend, in some way can be divided, but in the end they need to be integrated. So the members in the team cannot only know the knowledge of one part of the project, all the team members need to know the structure of the whole project and how the part they are working on will connect to other's work. Also, to make sure the works of each member can be integrated in the end, frequently communicating with team members is necessary.

4.5 Shiqi Li

4.5.1 Project Responsibilities

My main responsibilities is to integrate the frontend and backend of CWRU Resume Review System. I implemented the user profile feature. For the integration part, I handled the request from both backend and frontend for the signup/register, order, user profile, reviewer profile features. I helped develop the frontend web pages for home page, order page, order detail page, chat page to unify the style of our website.

4.5.2 Achieving Objectives

Although I've used Django before, this project provides me the opportunity to design and implement features. To fulfill specific requirements, I have to learn different templates and models in Django and apply them flexibly. And through the integration process, I can have a deeper understanding of the request and transfer from both frontend and backend.

4.5.3 Issues

Since the code from other groupmates includes different and particular logic, one of the challenges is integrating several features into the whole system. During refactoring, I have to get more familiar with other models to understand the inner logic and apply new structures to adapt to our system.

4.5.4 Lessons Learned

Through this project, I was more familiar with most elements and models in Django to build a user interactive web page. For example, since the chat and order feature used two different templates, I've learned to apply different structures to fulfill requirements during the integration process. Also, I've known how to connect the backend and frontend, especially sending and receiving requests in different circumstances and backend templates.

4.5.5 Insights

This project provides an excellent opportunity to design and implement a web application containing various features with cooperation. The design cannot follow up the building of the system most of the time. The process of refactoring and debugging to implement features is meaningful and prone to coding skills. Frequent team communication is necessary to prevent conflicts and increase efficiency and a pathway to understand and learn from others' thoughts.

4.6 Tianhao Jiang

4.6.1 Project Responsibilities

I design and implement both the front-end and back-end of chat and I also collaborate with my teammates to design some components in other pages. For the front-end of chat, I designed the general structure of the page with reference to the bootstrap style, and also did some modification on the css style so that the page is more compatible with the functionality. For the back-end part of chat, I implemented functions to ensure the functionality such as message sending, message display and the display of other communication channels.

4.6.2 Achieving Objectives

Even though I did learn and use Django before, I was not familiar with the front-end work such as the data transferring from front-end to back-end. This project helps me to better understand the structure of Django and some knowledge of the front-end work.

4.6.3 Issues

When implementing the front-end and back-end work, I actually met a lot of problems especially when integrating the front-end and back-end work. Both front-end and back-end code works when I am doing the test, and they don't work after the integration. Thanks to my teammate Shiqi, I finally did finish and ensure the functionality of the front-end and back-end with her help on debugging.

4.6.4 Lessons Learned

This project enriches my experience on the front-end and the data transferring from back-end to front-end. Since I always did develop the back-end in the similar project I did before, this project provides me some valuable opportunities to learn more about the front-end. Moreover, I also spent some time revising the knowledge about complex queries in Django, and this reinforced my ability on the database queries.

4.6.5 Insights

Frankly, it is my pleasure to work with such excellent teammates because everyone is participating in the project enthusiastically. Moreover, everyone in the team can utilize their major knowledge and experience to help each other when developing. It is also an excellent experience for everyone to learn some knowledge which they are not familiar with.