

VIET NAM NATIONAL UNIVERSITY
HO CHI MINH CITY
HO CHI MINH UNIVERSITY OF SCIENCE

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Patronum

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Contents

CHAPTER I: INTRODUCTION.....	5
1. Name of project	5
2. Motivation:.....	5
3. Target users and environments	5
4. Key features.....	5
CHAPTER II: OPERATION	6
1. Home page, with LogIn and SignUp button on Navigation bar	6
2. Login Popup.....	7
3. Sign Up Popup	8
4. New feed view.....	9
5. Post detail view	10
6. Show results from Search bar	11
7. Account menu	12
CHAPTER III: Product Overview	13
1. Product Perspective	13
2. Assumptions and Dependencies	13
3. Product Features	13
4. Other Product Requirements	13
CHAPTER IV: Software architecture	15
1. Architectural Goals and Constraints.....	15
1.1 Technical Platform.....	15
1.2 Security	15
1.3 Reliability/Availability	15
1.4 Performance	16
2. Architecture model	16
3. Deployment.....	17
4. Implementation View.....	17

4.1 Front-end	17
4.2 Back-end	18
CHAPTER V: CONCLUSION AND FUTURE PLAN	20
LIST OF REFERENCES	21

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Next, I would like to thank instructors for your guidance. They have helped us a lot in understanding the knowledge related to the project, helping us to review and evaluate the topic.

We sincerely thank you!

CHAPTER I: INTRODUCTION

1. Name of project

“Patronum”

2. Motivation:

With the development of social media and globalization, people around the world who share the same interest can develop online communities regardless cultural and geographical differences. We want to create an environment for such activity. A place where people can create topics for discussion, share their opinions and collect intellectual information from others.

3. Target users and environments

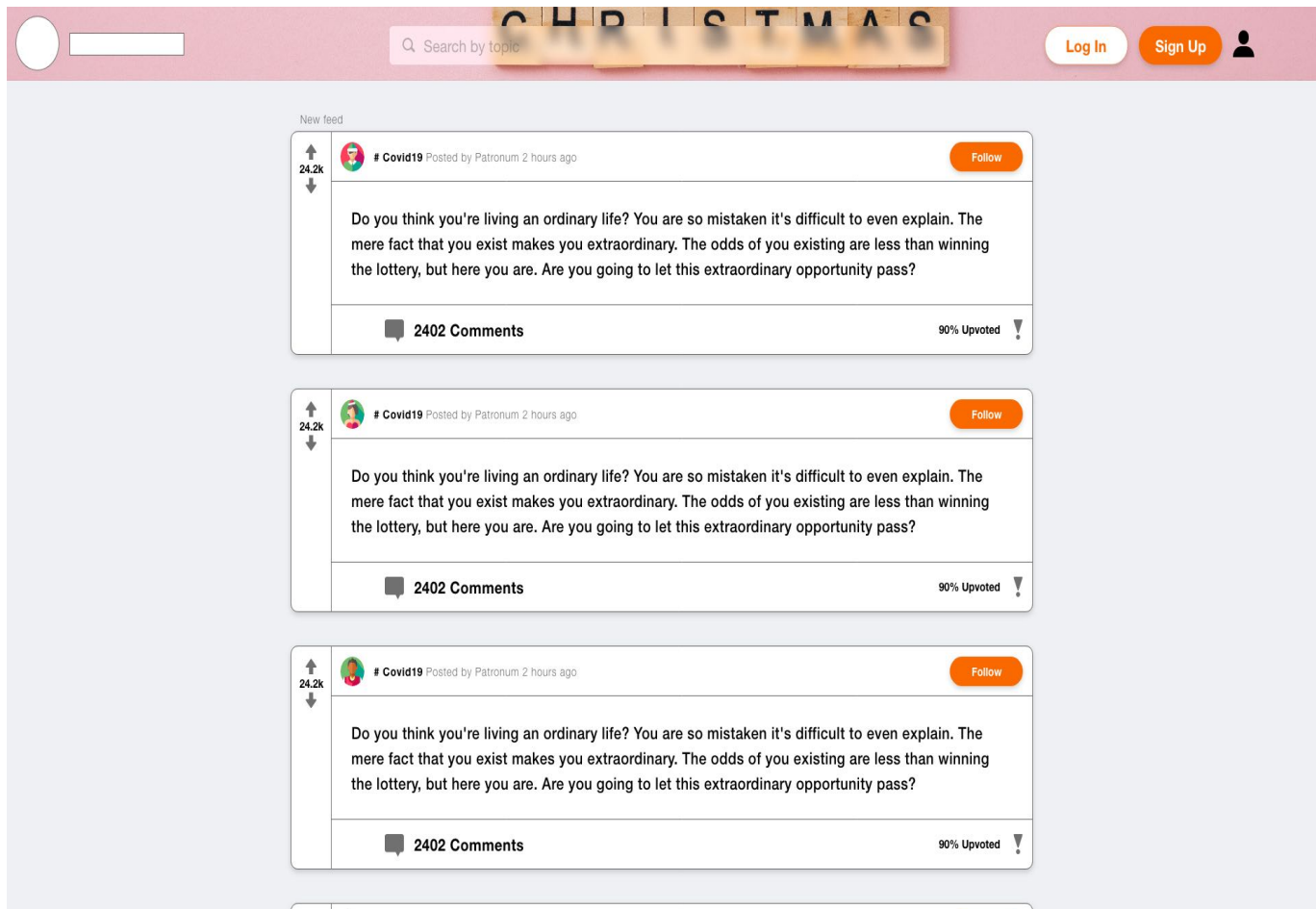
Our main environment is Web and all Web-users are our target users. We choose Web environment because it is accessible through personal computers, laptops or mobile devices

4. Key features

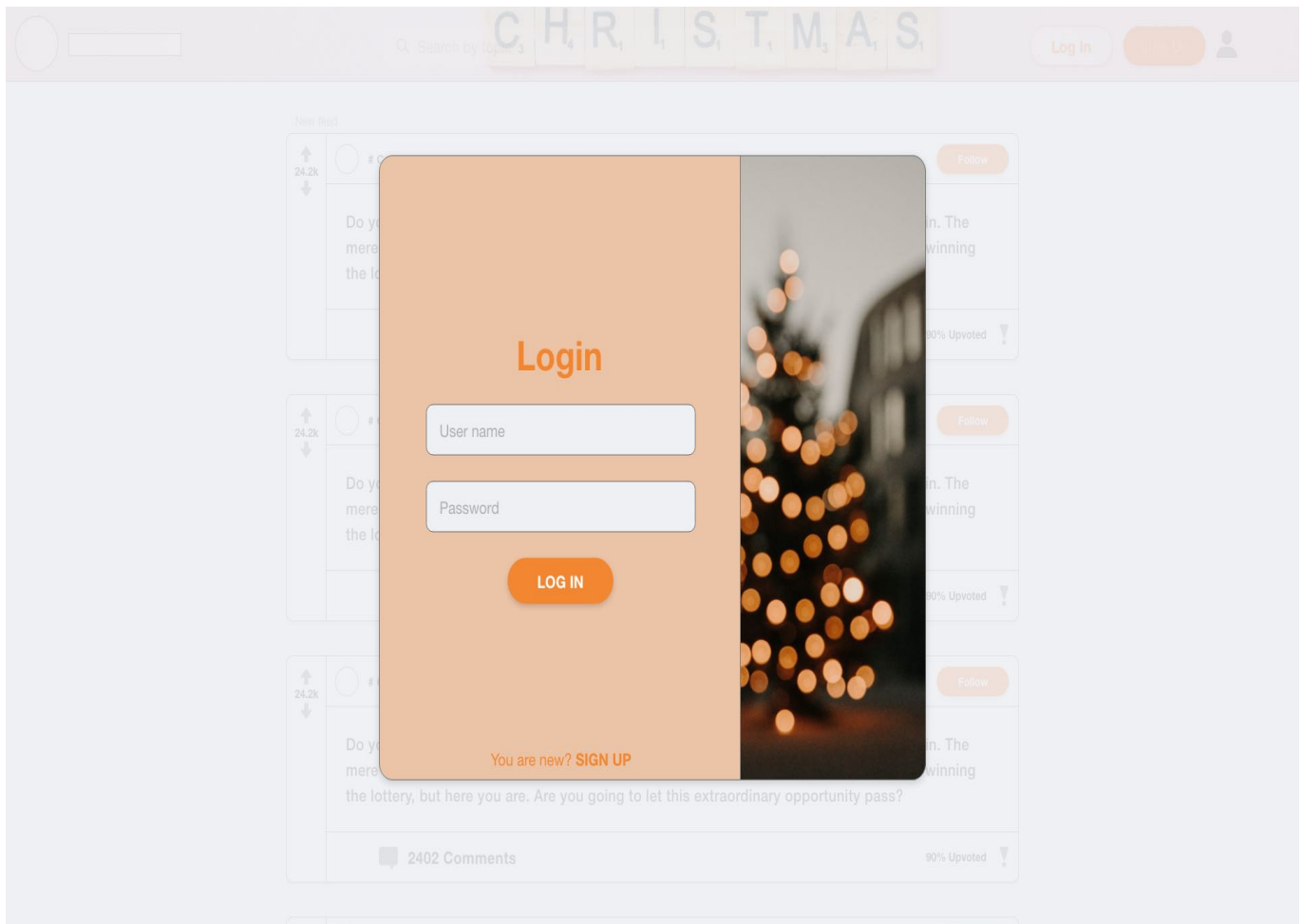
- Accounts
- Topics posting
- Post Interaction (agree, disagree, comment)
- Users Interaction
- Search bar for topics-author-title

CHAPTER II: OPERATION

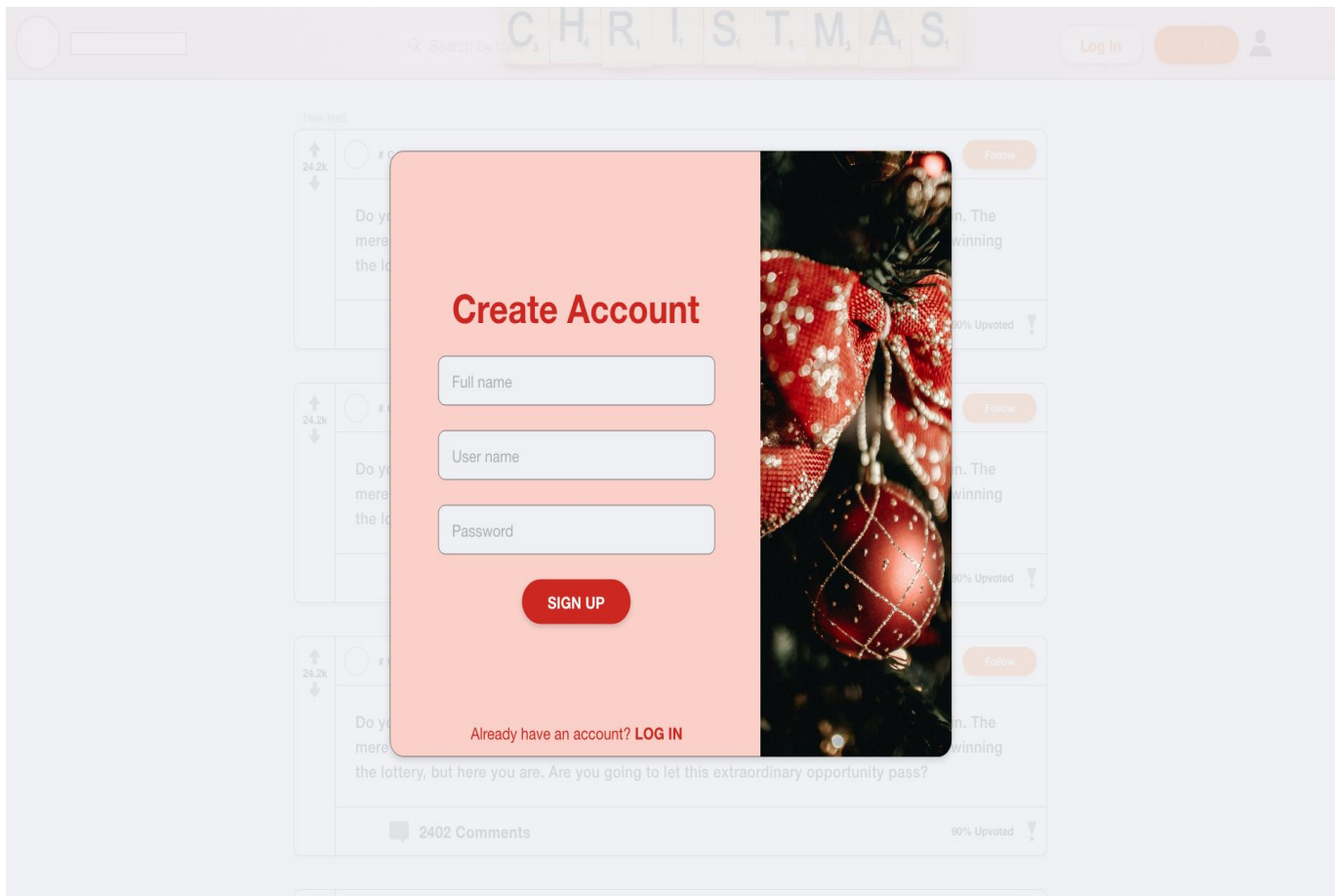
1. Home page, with LogIn and SignUp button on Navigation bar



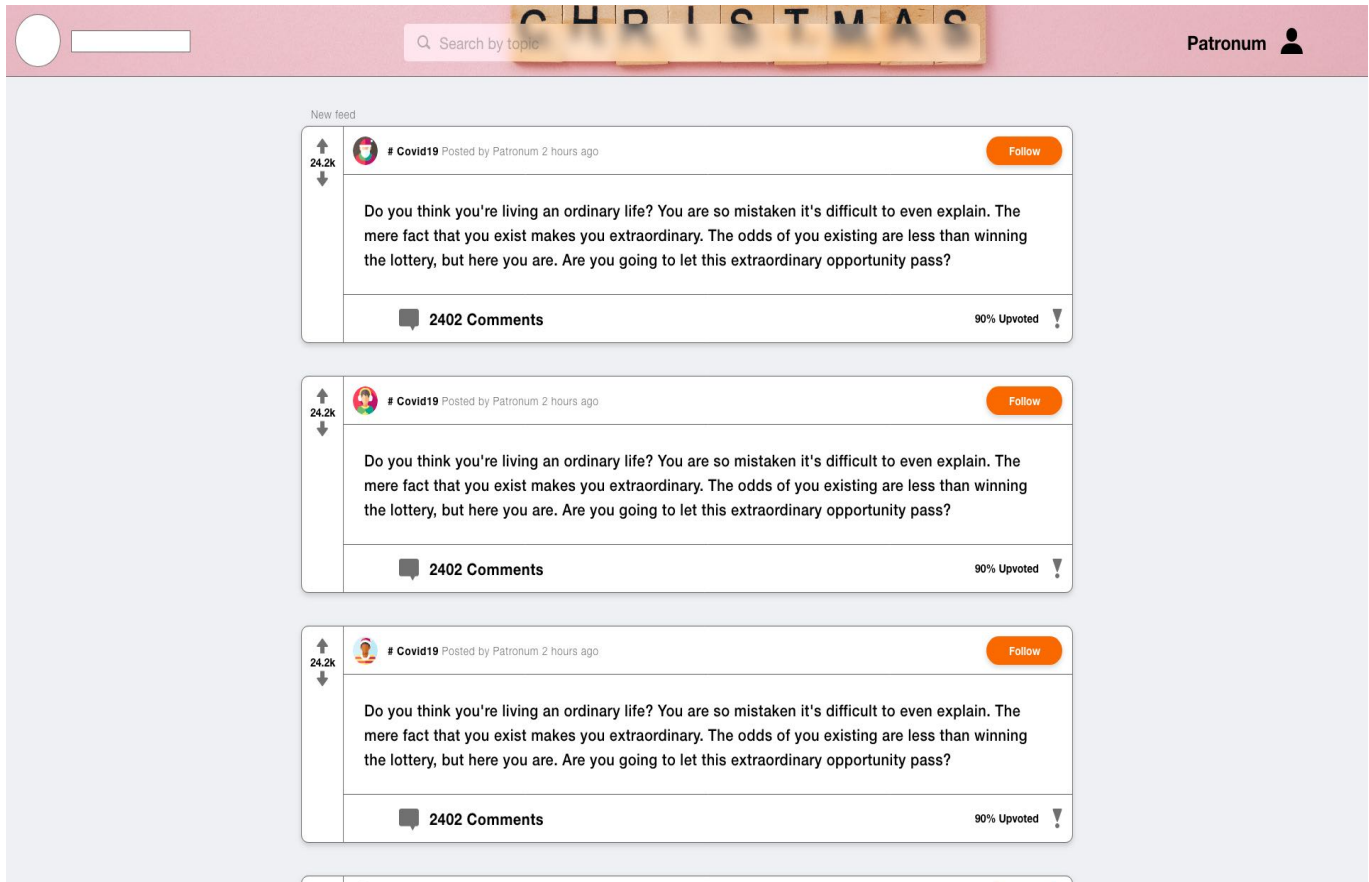
2. Login Popup



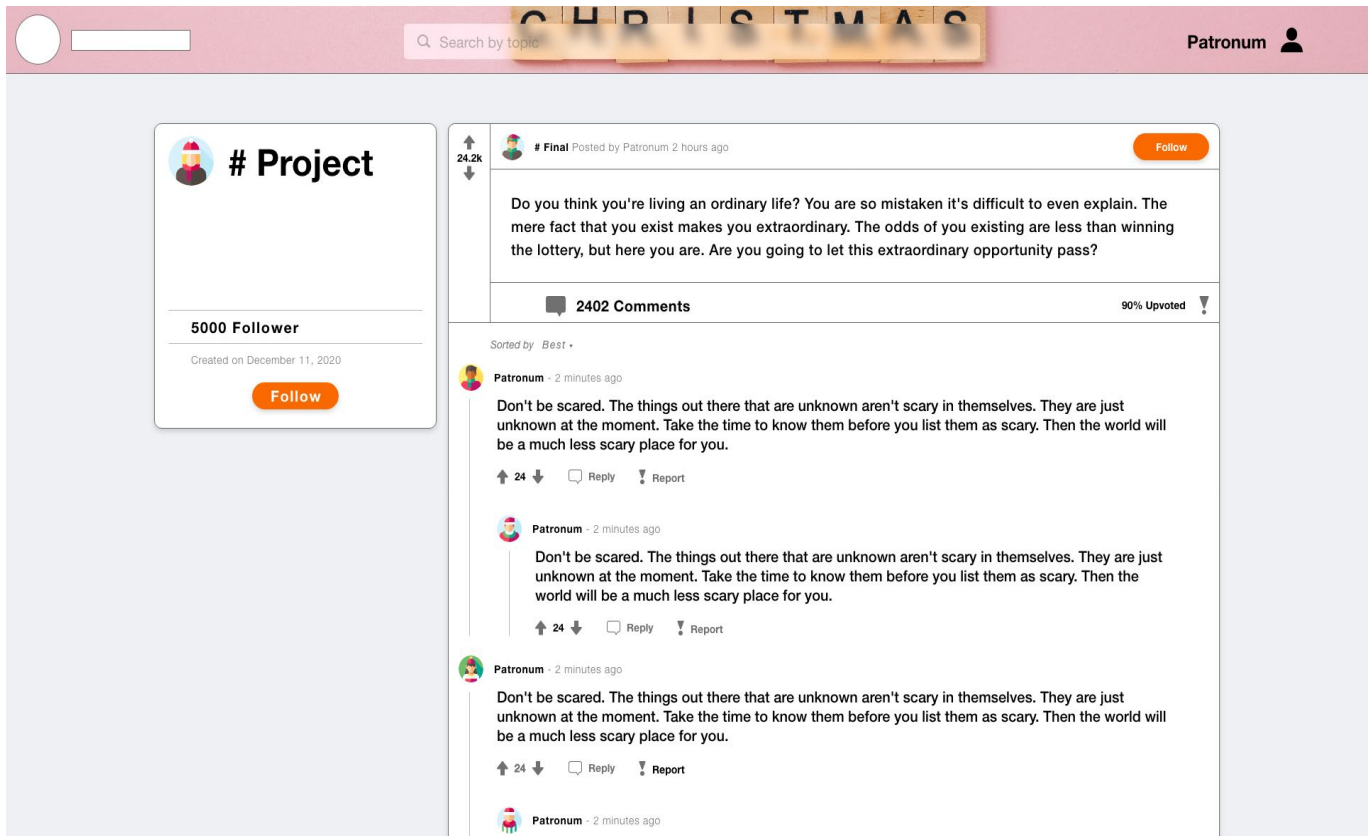
3. Sign Up Popup



4. New feed view



5. Post detail view





Navigate to this after select a Post from New feed

Detail of a post, with comments, brief description of hashtag

6. Show results from Search bar

CHRISTMAS

Patronum 



Project

5000 Follower

Created on December 11, 2020

Follow

uniform

She sat in the darkened room waiting. It was now a standoff. He had the power to put her in the room, but not the power to make her repent. It wasn't fair and no matter how long she had to endure the darkness, she wouldn't change her attitude. At three years old, Sandy's stubborn personality had already bloomed into full view.

Posted by Patronum 2 hours ago

uniform

She sat in the darkened room waiting. It was now a standoff. He had the power to put her in the room, but not the power to make her repent. It wasn't fair and no matter how long she had to endure the darkness, she wouldn't change her attitude. At three years old, Sandy's stubborn personality had already bloomed into full view.

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Posted by Patronum 2 hours ago

Follow

Difficult to even explain. The existing are less than winning opportunity pass?


90% Upvoted 






24   

Patronum · 2 minutes ago


Don't be scared. The things out there that are unknown aren't scary in themselves. They are just unknown at the moment. Take the time to know them before you list them as scary. Then the world will be a much less scary place for you.






24   

Patronum · 2 minutes ago


Don't be scared. The things out there that are unknown aren't scary in themselves. They are just unknown at the moment. Take the time to know them before you list them as scary. Then the world will be a much less scary place for you.






24   

Patronum · 2 minutes ago

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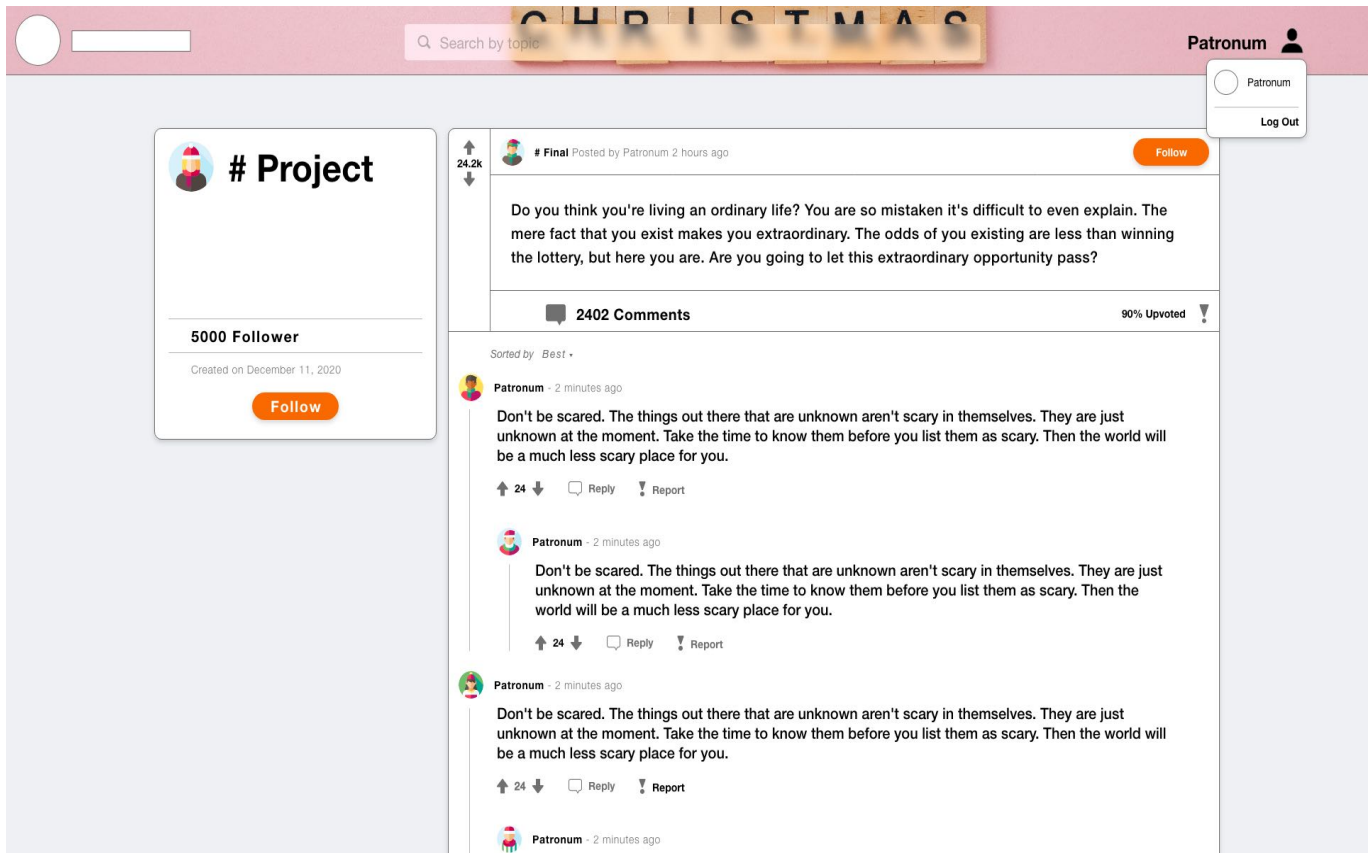


24   

Patronum · 2 minutes ago

Don't be scared. The things out there that are unknown aren't scary in themselves. They are just unknown at the moment. Take the time to know them before you list them as scary. Then the world will be a much less scary place for you.

7. Account menu



Users can Log out from here or check their information.

CHAPTER III: Product Overview

1. Product Perspective

This product is independent and totally self-contained

2. Assumptions and Dependencies

- Postgres offers a method to store database

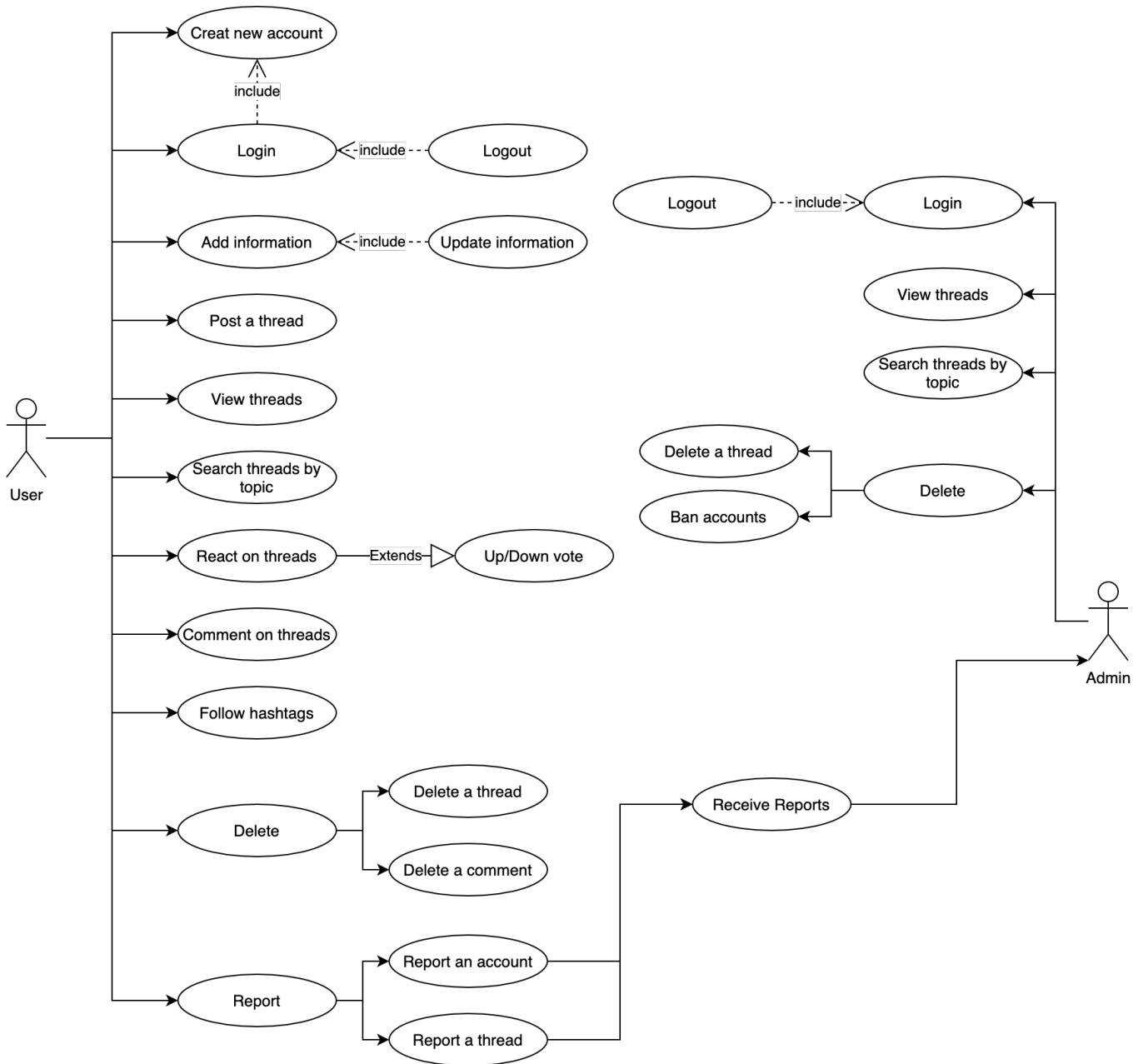
3. Product Features

- User Management
 - Authorization: users can sign-up, login into the webpage
 - Account management: users can view their history of activities
- Post
 - Display posts: users can view the posts
 - Search thread: users can search a thread quickly
 - Reaction / comment on post: users can comment their opinion on the thread

4. Other Product Requirements

- Response time: less than 1s under normal Internet connection
- Security: protect user account as well as user information
- Responsive: UI and responsive for most devices available

5. Use-case model



CHAPTER IV: Software architecture

1. Architectural Goals and Constraints

This section describes the software requirements and objectives that have some significant impact on the architecture.

1.1 Technical Platform

Patronum will be deployed onto a web platform.

1.2 Security

Basic security behaviors:

- Authentication: Login using at least a user name and a password
- Authorization: according to their profile, online users must be granted or not allowed to receive some specific services (create a new topic/post feature only available for verified users...)

For internet access, the following requirements are mandatory

- Confidentiality: sensitive data must be encrypted if any (password, identity card...) .
- Safety: Critical datas must not be kept at a local database.
- Data integrity : Data sent across the network can not be modified by a tier
- Auditing: Every sensitive action can be logged
- Non-repudiation : gives evidence a specific action occurred

1.3 Reliability/Availability

High reliability and high availability are required since there might be many users online at the different time. Users should not be disappointed. The system's high availability will also ensure customer satisfaction and loyalty.

Targeted availability: 24 hours a day, 7 days a week

1.4 Performance

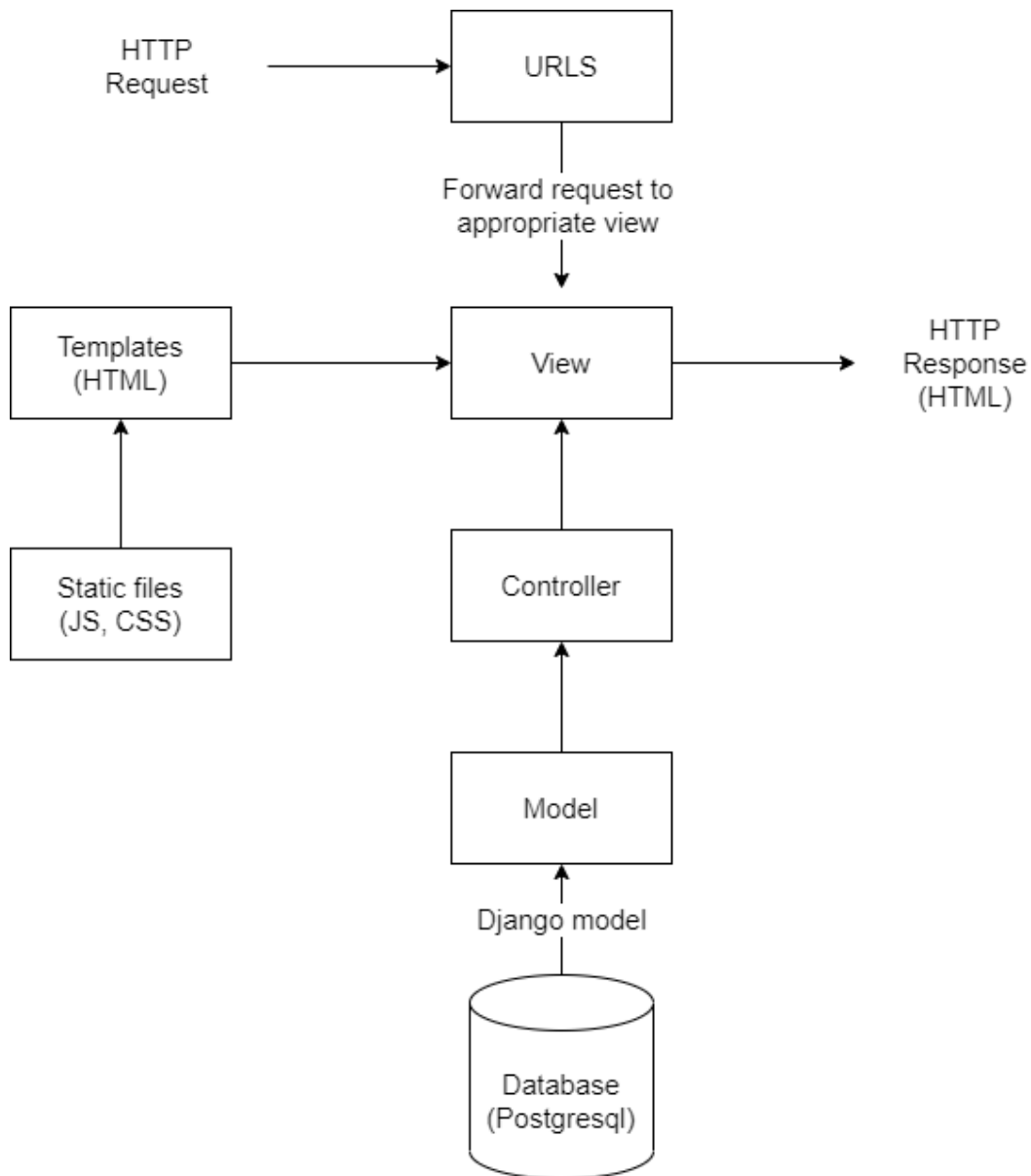
Login queries should return 90% of the time below 3 sec.

Post / React / Comment should be successful 90% of the time below 3 sec

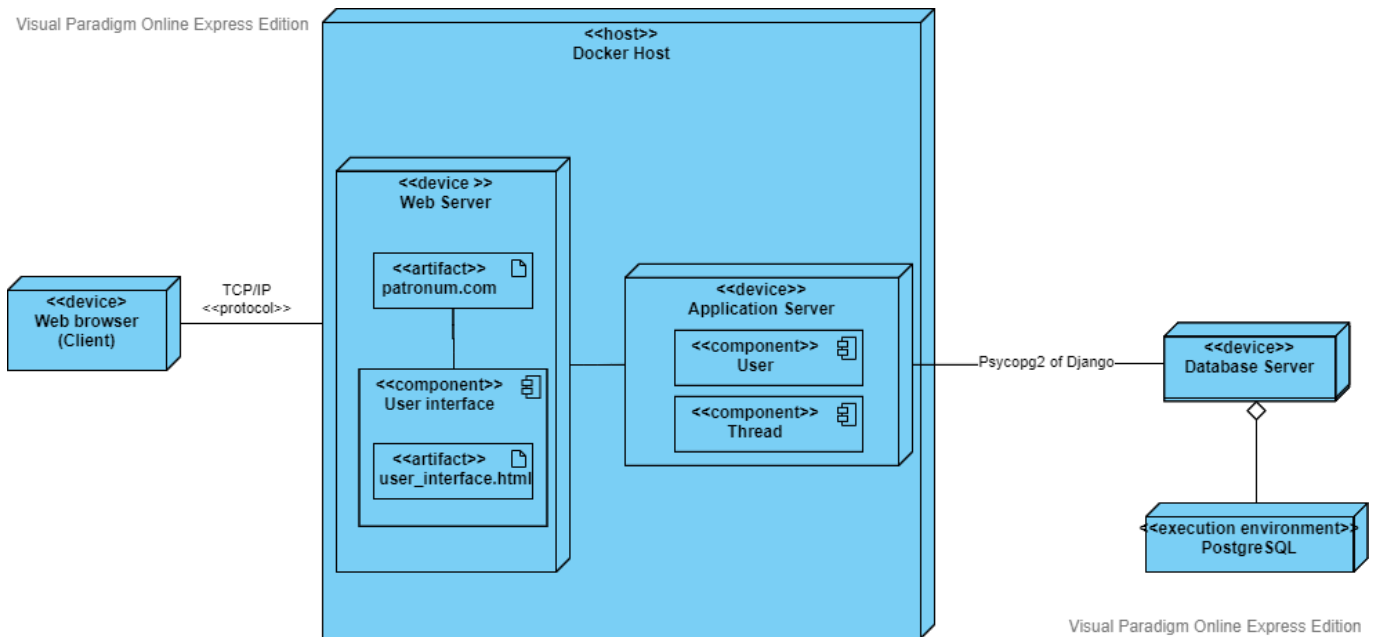
Search queries should return 90% of the time below 5 sec.

2. Architecture model

In this project, we use MVC-based model for the system architecture



3. Deployment

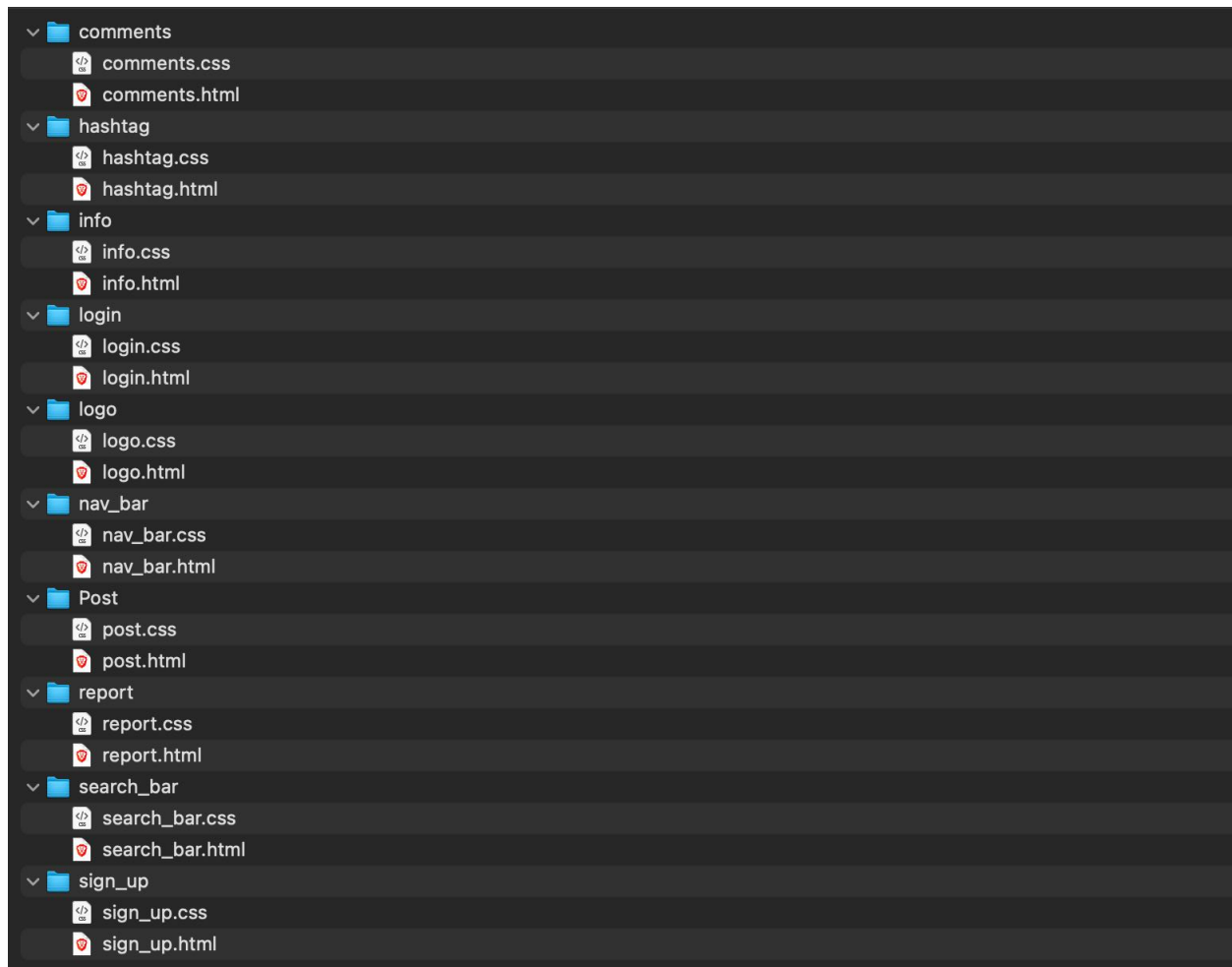


4. Implementation View

4.1 Front-end

We divide source code structures based on the functions of this system

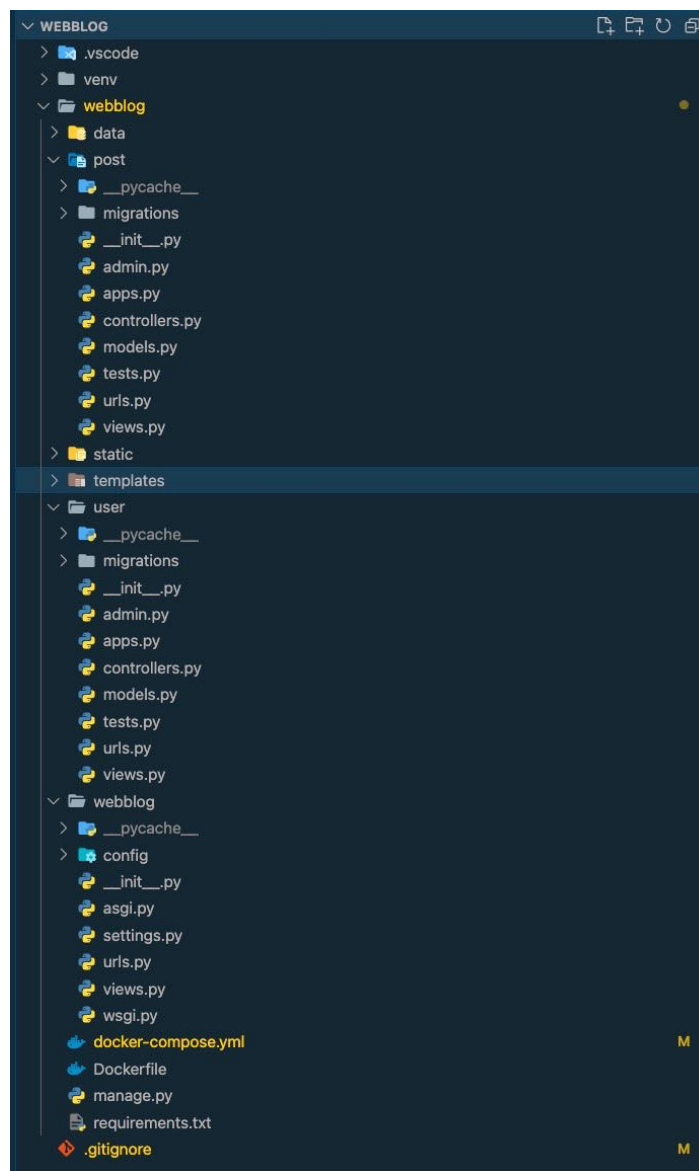
- comments folder: comment view
- hashtag folder: hashtag view
- info folder: info of an user view
- login folder: login view
- logo folder: logo of the website view
- nav_bar folder: the navigation bar of the website view
- post folder: posting threads view
- report folder: report an user view
- search_bar folder: search bar view
- sign_up folder: sign up view



4.2 Back-end

- weblog folder: main folder
 - asgi: environment information
 - settings.py: settings of project
 - urls: store url
 - views: main controller
 - wsgi: environment information
- post: sub-folder store everything related to **Post**
 - migrations: store changes in database of **Post**
 - models: model of **Post**
 - views: controller of **Post**

- postgres--data: store database(docker)
- static: store static files (js, css, ...)
- templates: front-end
- user: sub-folder store everything related to **User**
 - migrations: store changes in database of **User**
 - models: model of **User**
 - views: controller of **User**



CHAPTER V: CONCLUSION AND FUTURE PLAN

This project has given us a chance to make great efforts to build a website. It also helps us practice our skills to teamwork, and so on, which may come in handy in our future.

However, since the time is limited, we only had no more than 7 days to learn a new language and successfully build this website, there could be some minor errors or bugs that we do not have time to detect. Besides, since the app has just been developed and there is just a small number of users who have used it, we do not know if some functions of the app are suitable for the end-users. In the future, we hope to ameliorate the application and publicize it to more people.

LIST OF REFERENCES

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<https://docs.docker.com/engine/>

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