Swe573 Software Development Practice

Report of

2022 Fall
Project Final Deliverables

by

Şahin Kapan

Course Instructor: Suzan Üsküdarlı

Date of Submission: 03.12.2022

Project Name: MyBrain

Git Repository: https://github.com/SahinKapan/BOUN-SWE-573-Fall-2022

Git Tag Version: https://github.com/SahinKapan/BOUN-SWE-573-Fall-2022/releases/tag/0.9

Deployment URI: http://mybrain-env.eba-z5dthuum.us-west-2.elasticbeanstalk.com/

Boğaziçi University

Bebek, İstanbul

Project Final Deliverables

Student: Şahin Kapan

Student ID: 2021719075

Course: SWE573

Date: 03.12.2022

Project Name: MyBrain App

Git Repository: MyBrain App

Git Tag Version: 0.9

Deployment URI: MyBrain

Test Credentials:

Username: sahinkapan

Password: 123+789Asd

HONOR CODE
Related to the submission of all the project deliverables for the SWE573 2022 Fall semester project reported in this report, I **<Şahin Kapan>** declare that:

- I am a student in the Software Engineering MS program at Bogazici University and am registered for SWE573 course during the 2022 Fall semester.

- All the material that I am submitting related to my project (including but not limited to the project repository, the final project report, and supplementary documents) have been exclusively prepared by myself.

- I have prepared this material individually without the assistance of anyone else with the exception of permitted peer assistance which I have explicitly disclosed in this report.

ŞAHİN KAPAN

Project Details

Overview

The MyBrain website allows users to share the content they like on other sites, by giving a link within MyBrain, and to see other users' posts and go to the linked link. On this website, there are separate pages where the user can see only their own posts, the posts of the users you follow, and everyone who shares on MyBrain. The user can follow, unfollow, and comment on all posts by sharing links and posts. In addition, the user can also view and share the profile pages of other users. Content text, link, tags and photos can be shared on posts. Tags help users find similar posts. In addition to this feature, if the user wishes, he/she can find the content text of the posts by typing a word in the 'search' part and these posts will be listed by pressing enter. My Brain has both a user interface and its design will look very sweet to people. Users will want to share the links of all their favorite content here.

Functional Requirements

1. Registration

1.1 Users shall be able to register using e-mail address.
1.2 Users shall provide a secure password which is longer than 8 characters and includes one uppercase or one special character.
1.3 Users should confirm their e-mail addresses.
1.4 Users shall have unique username.
1.5 Users shall be able to share invitation link to others.
1.6 Users shall provide a secure password which can’t be entirely numeric.

2.User

2.1 Users shall be able to login in with their username and passwords.
2.2 Users shall be able to have and edit their posts and parts of post which are content text, link, tags and post picture.
2.3 Users shall be able to see their own profile pages.
2.4 Users shall be able to search posts with keywords.
2.5 Users shall be able to see the posts of the users they follow on the following page.
2.6 User shall be able to see the posts of all users on the all posts page.1.2.8 Users shall be able to add profile picture.
2.7 User shall share any link.
2.8 User shall be able to join any learning space.
2.9 Users shall be able to add user photo at registration stage.
2.10 Users shall be able to create as many posts as they want.
2.11 Users shall be able to delete their own posts.
2.12 User shall be able to comment on other people's posts.
2.13 User shall be able to save other people's posts.

2.14 User shall be able to save their own posts.

2.15 User shall be able to like other users's posts.

2.16 Users shall be able to have and edit their own profile pages.

2.17 Users shall be able to reset their passwords if they forget password or enter wrong passwords for three times.

2.18 User shall make the sharing private or public.

2.19 Users shall be able to have and edit their own profile pages.

Non-functional Requirements

1. Infrastructure

1.1 Django shall be used as framework.

1.2 The data of users and posts shall be stored and retrieved by model.

1.3 The display of the MyBrain platform shall be rendered by template by following MVT design pattern.

1.4 Business logics for feedback mechanism shall be placed in view by following MVT design pattern.

1.5 View shall respond HTTP requests by following MVT design pattern.

1.6 The platform language shall be English.

1.7 The platform shall support Safari and Chrome browsers.

1.8 In the application, html, css, javascript and python programming languages shall be used.

2. Data Structure

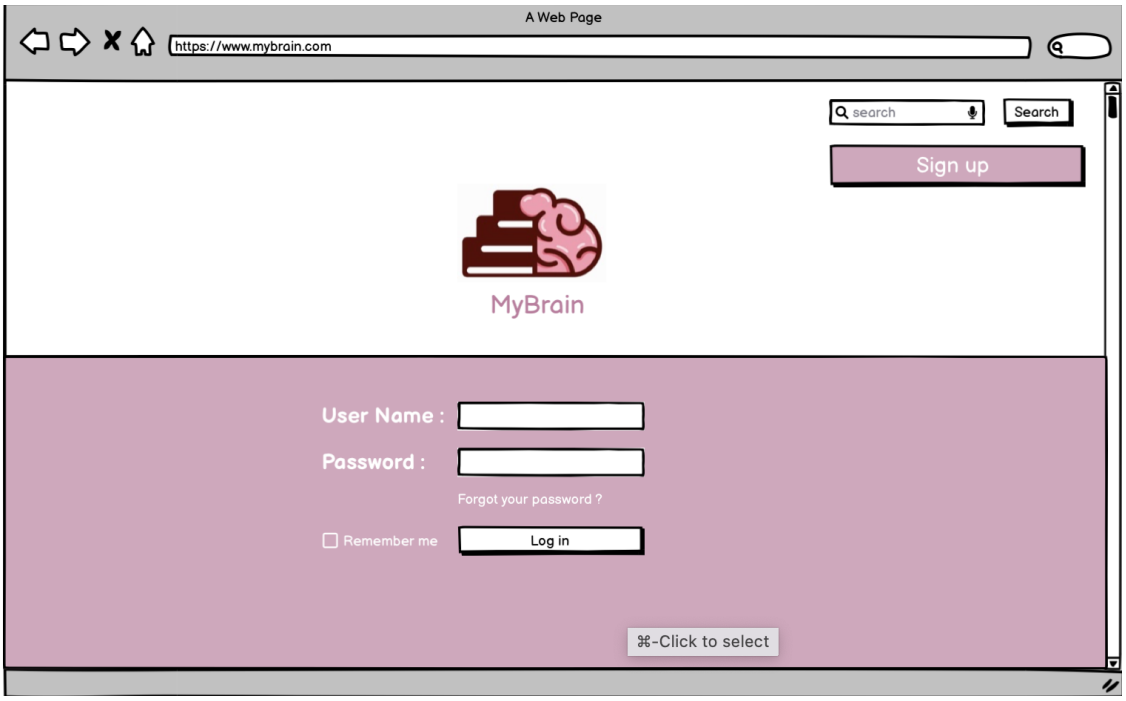
2.1 MySql database shall be used to store users' data.

3. Security and Privacy

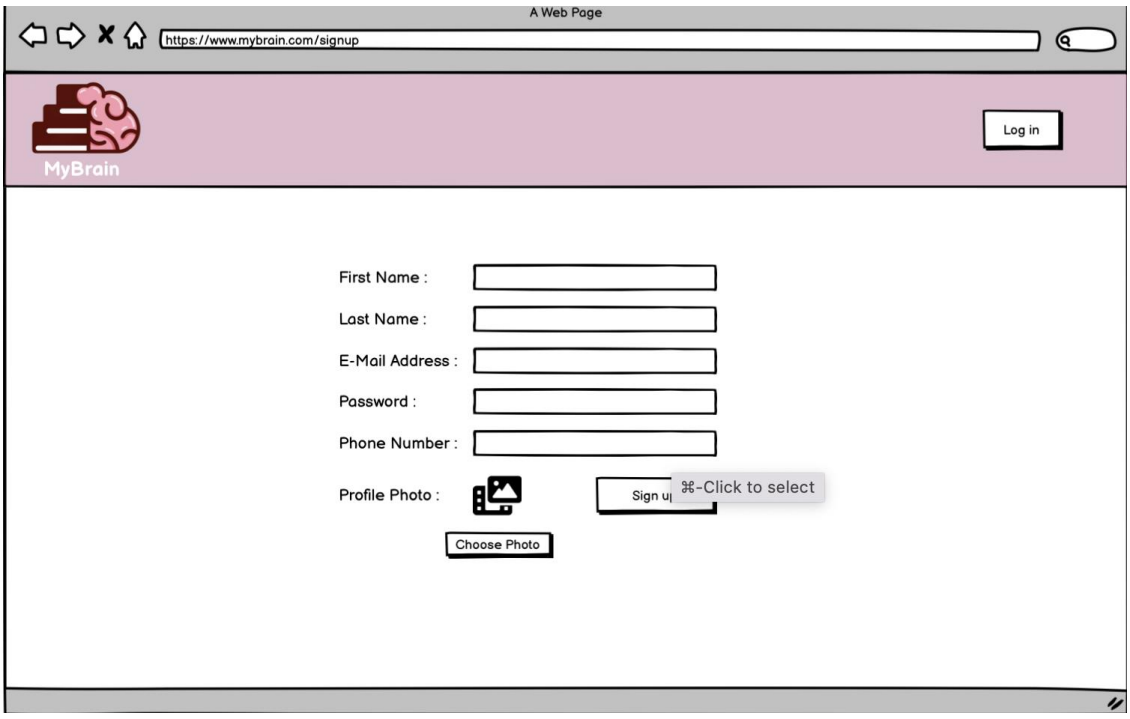
3.1 The platform shall not allow the users to manipulate the data of other users.

Mockup Screens

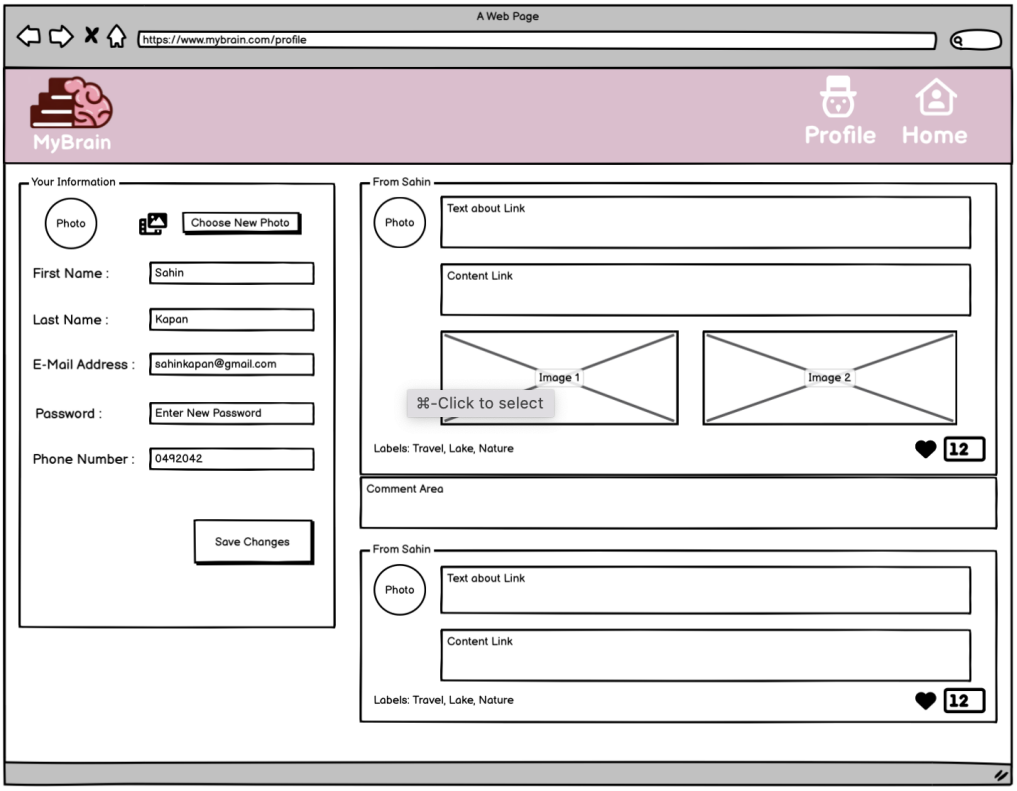
1.Login Page



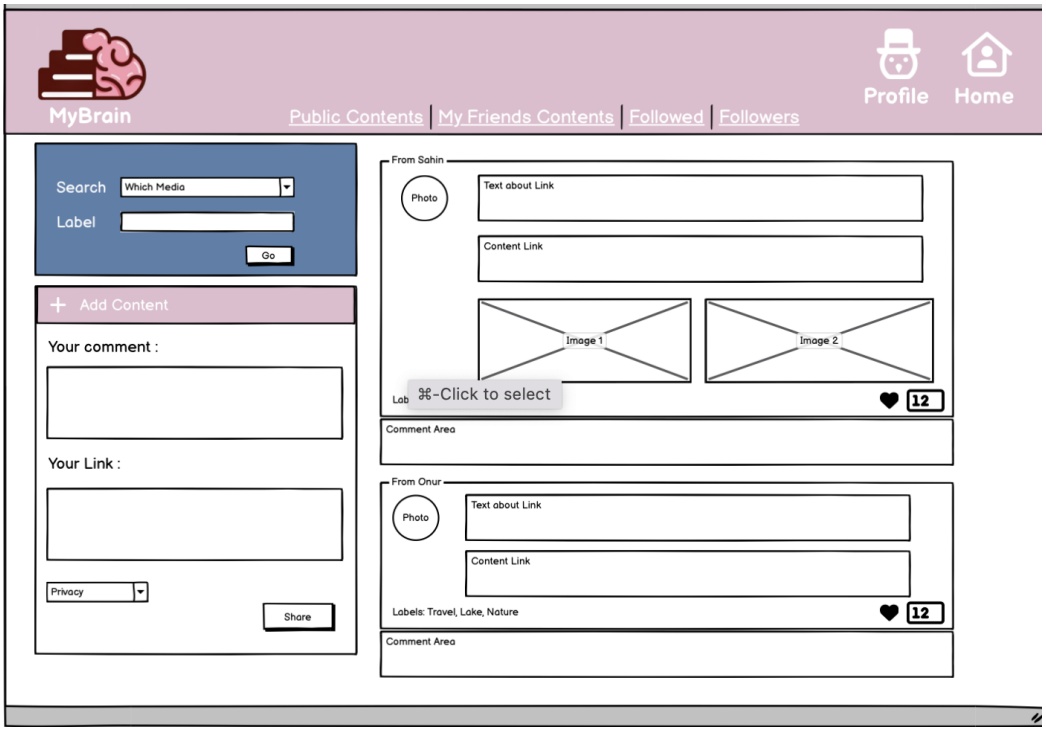
2. Signup Page



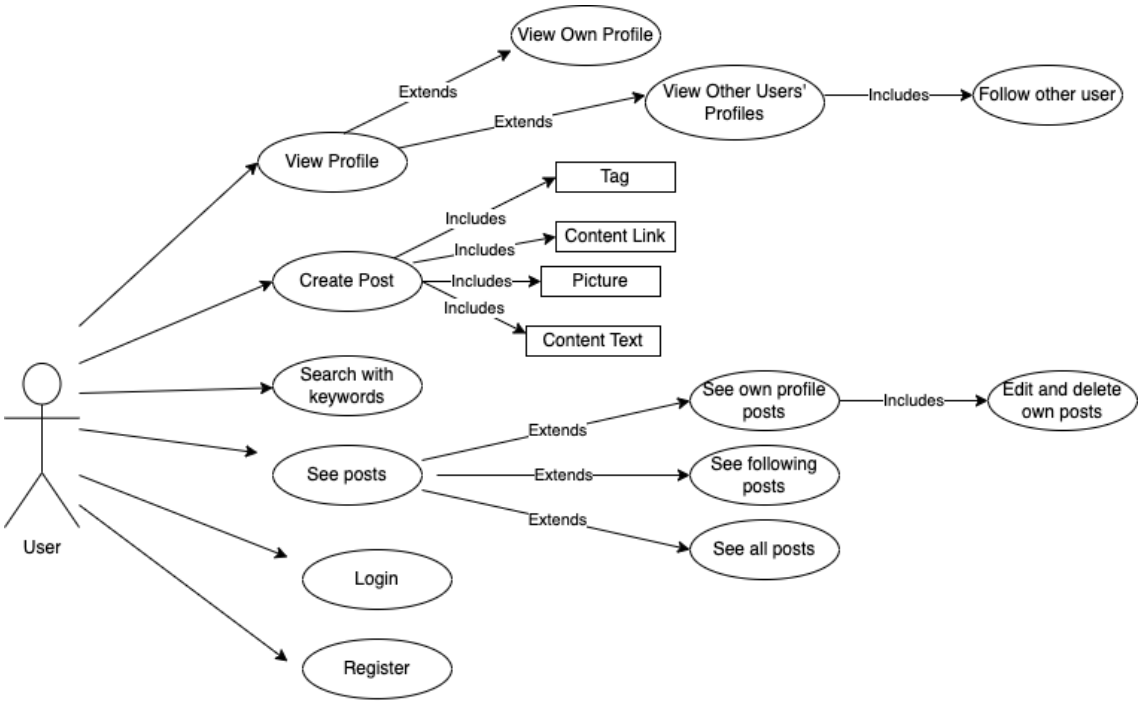
3. Profile Page



4. Main Page

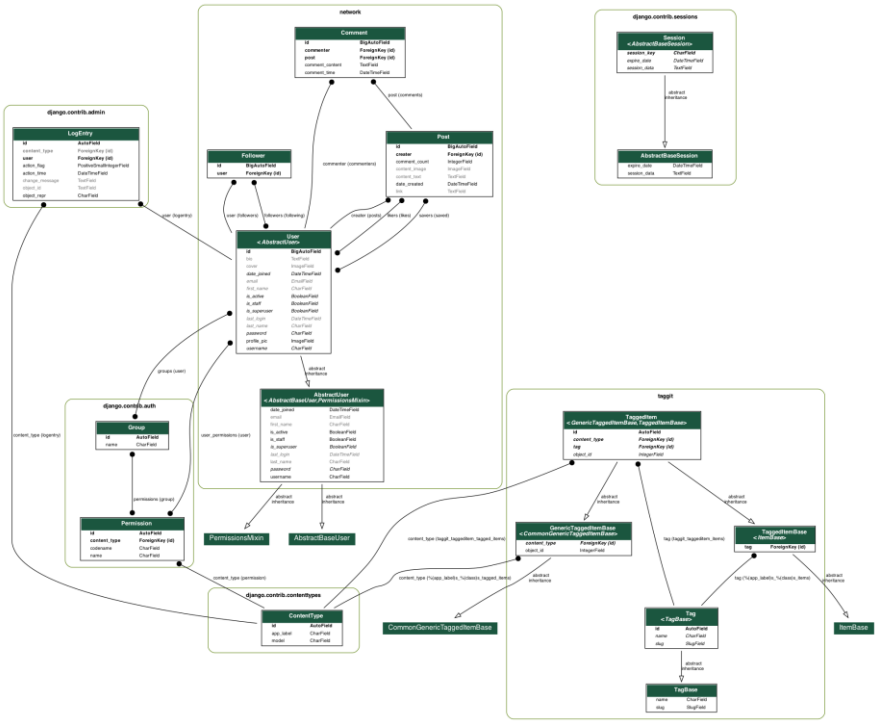


Use Case Diagram

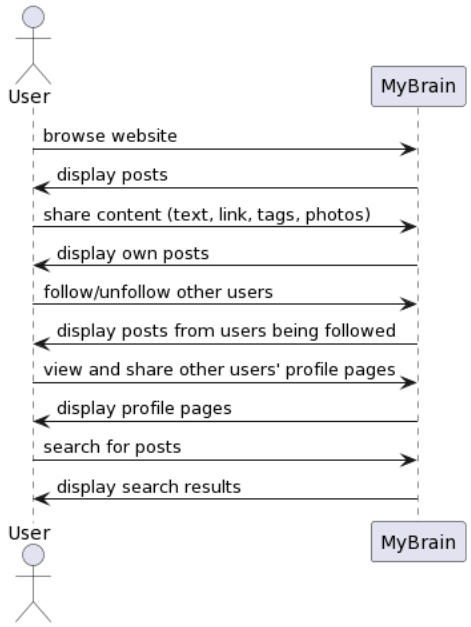


Class Diagram

Class diagram is attached to CD separately. Since the picture is large, it does not appear clearly in this pdf.



Sequence Diagram



Status of the project

Functional Requirements	Status	Note
1.1 Users shall be able to register using e-mail address.	Completed	Issue: Create Login and Sign Up Page
1.2 Users shall provide a secure password which is longer than 8 characters and includes one uppercase or one special character.	Completed	Issue: Create Login and Sign Up Page
1.3 Users should confirm their e-mail addresses.	Not Completed	
1.4 Users shall have unique username.	Completed	Issue: Create Login and Sign Up Page
1.5 Users shall be able to share invitation link to others.	Not Completed	
1.6 Users shall provide a secure password which can't be entirely numeric.	Not Completed	
2.1 Users shall be able to login in with their username and passwords.	Completed	Issue: Create Login and Sign Up Page

2.2 Users shall be able to have and edit their posts and parts of post which are content text, link, tags and post picture.	Completed	Issue: Bring go to link feature, Add tag feature, Create Post Feature
2.3 Users shall be able to see their own profile pages.	Completed	Issue: Create Profile Feature
2.4 Users shall be able to search posts with keywords.	Completed	Issue: Create search feature
2.5 Users shall be able to see the posts of the users they follow on the following page.	Completed	
2.6 User shall be able to see the posts of all users on all posts page.	Completed	
2.7 User shall share any link.	Completed	Issue: Bring go to link feature
2.8 User shall make the sharing private or public.	Not Completed	
2.9 Users shall be able to add user photo at registration stage.	Completed	
2.10 Users shall be able to create as many posts as they want.	Completed	Issue: Create Post Feature
2.11 Users shall be able to delete their own posts.	Completed	Issue: Create Post Feature
2.12 User shall be able to comment on other people's posts.	Completed	Issue: Create Post Feature
2.13 User shall be able to save other people's posts.	Completed	
2.14 User shall be able to save their own posts.	Completed	Issue: Create Post Feature
2.15 User shall be able to like other users's posts.	Completed	Issue: Create Post Feature
2.16 Users shall be able to have and edit their own profile pages.	Partially	
2.17 Users shall be able to reset their passwords if they forget password or enter wrong passwords for three times.	Not Completed	
2.18 User shall make the sharing private or public.	Not Completed	

Non-Functional Requirements	Status	Note
1.1 Django shall be used as framework.	Completed	Issue: Watch the Django related video from Udemy
1.2 The data of users and posts shall be stored and retrieved by model.	Completed	Issue: Watch the Django related video from Udemy
1.3 The display of the MyBrain platform shall be rendered by template by following MVT design pattern.	Completed	
1.4 Business logics for feedback mechanism shall be placed in view by following MVT design pattern.	Completed	
1.5 View shall respond HTTP requests by following MVT design pattern.	Completed	
1.6 The platform language shall be English.	Completed	
1.7 The platform shall support Safari and Chrome browsers.	Completed	
1.8 In the application, html, css, javascript and python programming languages shall be used.	Completed	
2.1 MySql database shall be used to store users' data.	Completed	Issue: Create MySql database connection
3.1 The platform shall not allow the users to manipulate the data of other users.	Completed	

Status of Deployment

In the early stage of the project, I dockerized the project for preventing further issues about environment changes. Here you can find the link: Docker Container Issue for Dev Environment

My docker version: Docker version 20.10.20

Docker compose version: docker-compose version 1.25.5. There are the steps to run project locally.

1) Open docker in your computer.
2) Open terminal.
3) You should go to the folder where 'docker-compose.yml' is located. ('term-project/docker-compose.yml')
4) First, you should build docker image by running the 'docker-compose build' command.
5) Then, run the command "docker-compose up".
6) Both mysql and app will be working.
7) Open your favorite browser and route to "localhost:8000/".

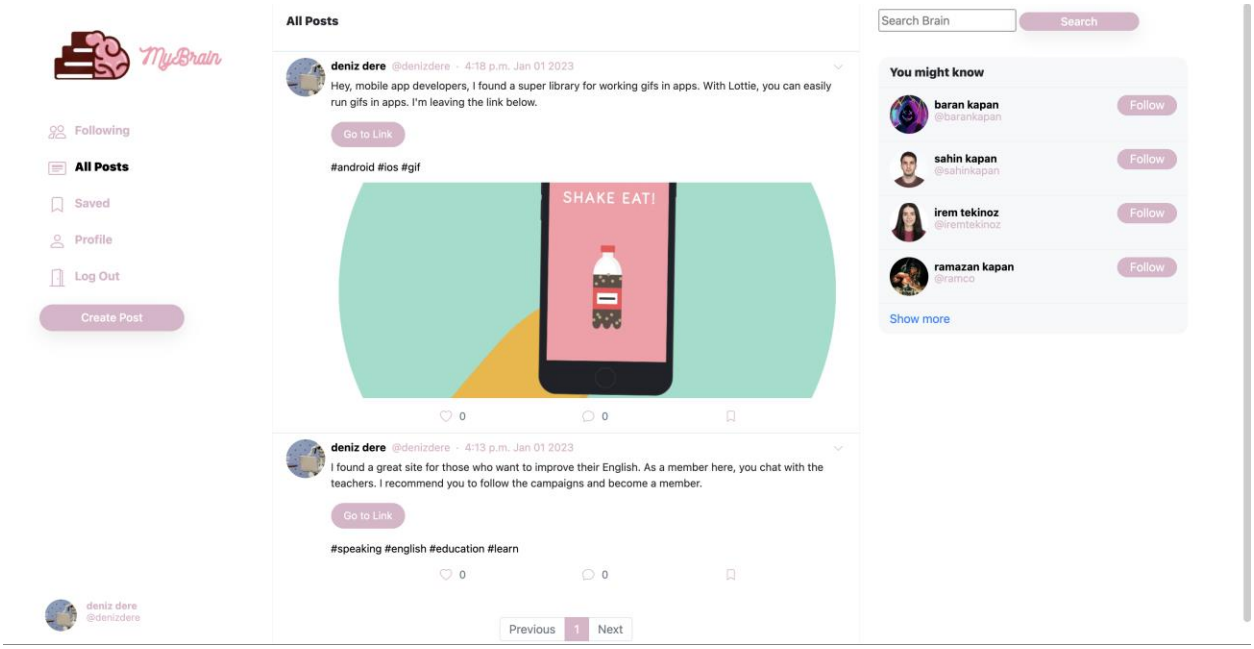
Also, I deploy the project. I used AWS for the deployment. Now, it is working at the URI below.

Deployment URI: MyBrain App

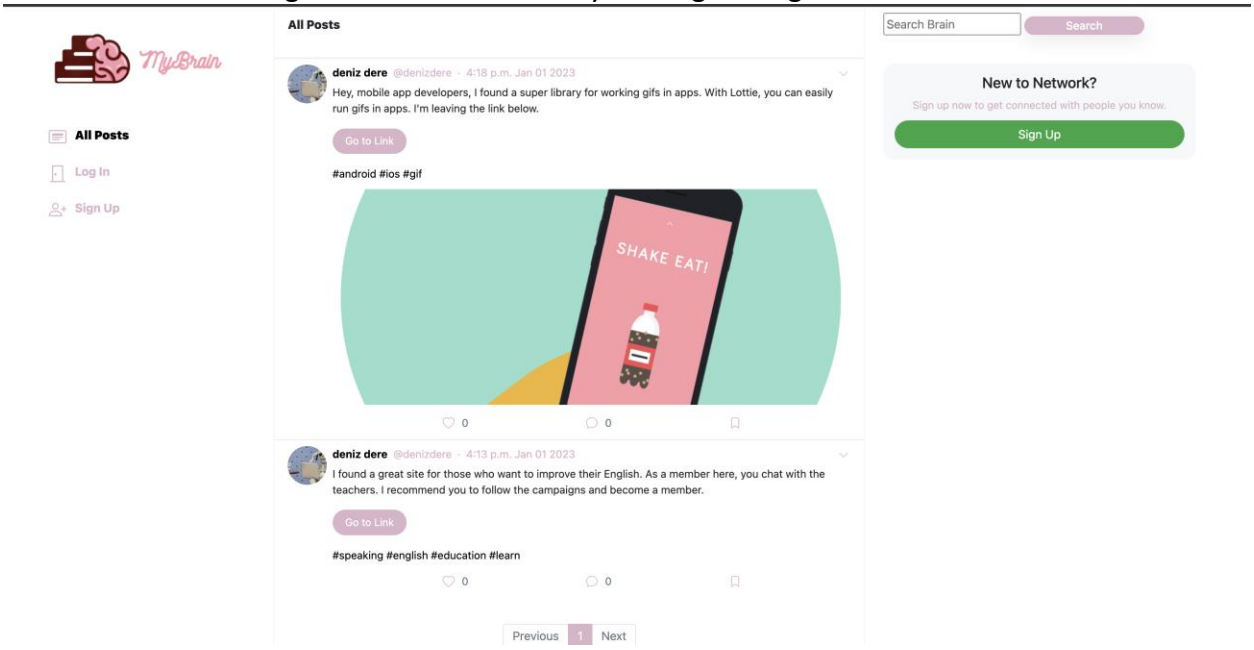
System Manuel

You will find two important files: requirement.txt and Dockerfile. These files are needed to run the application, but the application also requires a specific database configuration that can only be obtained by using a Docker container. The database for the app uses IP filtering, which means that it is not possible to connect to the production database from a local computer. Therefore, using Django's built-in virtual environment will not allow the app to run. To run the app on your computer, you will need to follow the steps described in the 'Status of Deployment' section.

User Manuel



In Mybrain, the user can be directed to the following, all posts, saved and profile pages by using the bar on the side. Posts appear in the middle. If the user is on the right bar, you can see the users who are members of Mybrain and when you click, you can view their profile pages. In the Search section, a search is made for the content text. Posts containing the word you typed are listed. The user can log out of their account by clicking the logout button.



After logging out or if you are entering the site for the first time, the above screen appears. The user can sign up or login by clicking the buttons on the left bar. You can also see a signup button in the bar on the right.

Tests

You can find our tests in test.py in the Github repo. After pulling the code, you can activate the environment and test the test cases. You can use the following two commands:

1-) source django-env/bin/activate
2-) python manage.py test

So we can test the accuracy of the tests.