



Spring 2023

SWE573-SOFTWARE DEVELOPMENT PRACTICE

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Date: 29/05/2023

Project Name: Storyteller

Git Repository : https://github.com/amineglr/SWE573_daglarguler

Git Tag Version : v0.9

Deployment URL: <http://34.159.184.66:8000>



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Honor Code

Related to the submission of all the project deliverables for the Swe573 2022 Spring semester project reported in this report, I Aminenur Dağlargüler declare that:

- I am a student in the Software Engineering MS program at Bogazici University and am registered for Swe573 course during the Spring 2023 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.

Aminenur Dağlargüler



Credentials to Login to the App

Username: storyteller

Password:1234

Overview

This project is developed for Bogazici University Software Engineering MSc. SWE573 Software Development Practice. This application is designed to let people share their living stories and memories. Users can share their stories with location, exact date, session, decade, year, month or date range. They can also add tags to categorize the living story that they share. Users can leave comments under the stories, and like stories. Users can search stories based on the story title, location, date, decade, author of the story.

Software Requirements Specification

1.Login/Signup

1. The web application shall require a password that includes at least eight characters while the user creates an account.
2. The web application shall require a unique username while the user creates an account.
3. The web application shall require an email from the user while the user creates an account.
4. The web application shall not allow special characters to be entered while creating a password for the account.
5. The web application shall ask the user to enter the registered email address while signing in.
6. The web application shall ask the user to enter the account password while signing in.

2.Profile

7. The web application shall allow users to declare their age.
8. The web application shall allow users to declare their birth date.
9. The web application shall allow users to edit their profiles.

3.Creating a Story

10. The web application shall allow the users to enter the story's location.
11. The web application shall allow users to enter a time period.
12. The web application shall allow users to enter the exact date of the story.
13. The web application shall allow users to declare the characters/persons in the story.
14. The web application shall allow users to enter the emotions of the storyteller via emojis.
15. The web application shall allow users to add multimedia (images, sounds, or videos) to their stories.
16. The web application shall allow users to add where the story takes place.
17. The web application shall require users to enter the title of the story.
18. The web application shall display a map while the user enters the story's location.

4.Editing a Story

19. The web application shall allow users to edit their stories' titles.
20. The web application shall allow users to edit their stories' content.
21. The web application shall allow users to edit their stories' multimedia.
22. The web application shall allow users to edit their stories' tags.
23. The web application shall allow users to edit their stories' time.

5. User Interaction with Each Other

- 24. The web application shall allow users to add comments on other stories.
- 25. The web application shall allow users to like other users' stories.
- 26. The web application shall allow users to follow other users.
- 27. The web application shall allow users to display followed users' stories on the home page.
- 28. The web application shall allow users to display liked stories under Liked Stories Tab.

6. Tags

- 29. The web application shall give predefined tags to categorize the stories.
- 30. The web application shall allow users to define tags for their stories.
- 31. The web application shall categorize the stories using tags.

7. Search

- 32. The web application shall allow users to search stories based on the story's location.
- 33. The web application shall allow users to search stories based on the keywords.
- 34. The web application shall allow users to search stories based on the tags.

8. Filter

- 35. The web application shall allow users to filter results by title.
- 36. The web application shall allow users to filter results by username.
- 37. The web application shall allow users to filter results by category.
- 38. The web application shall allow users to filter based on their location.
- 39. The web application shall allow users to filter by date.

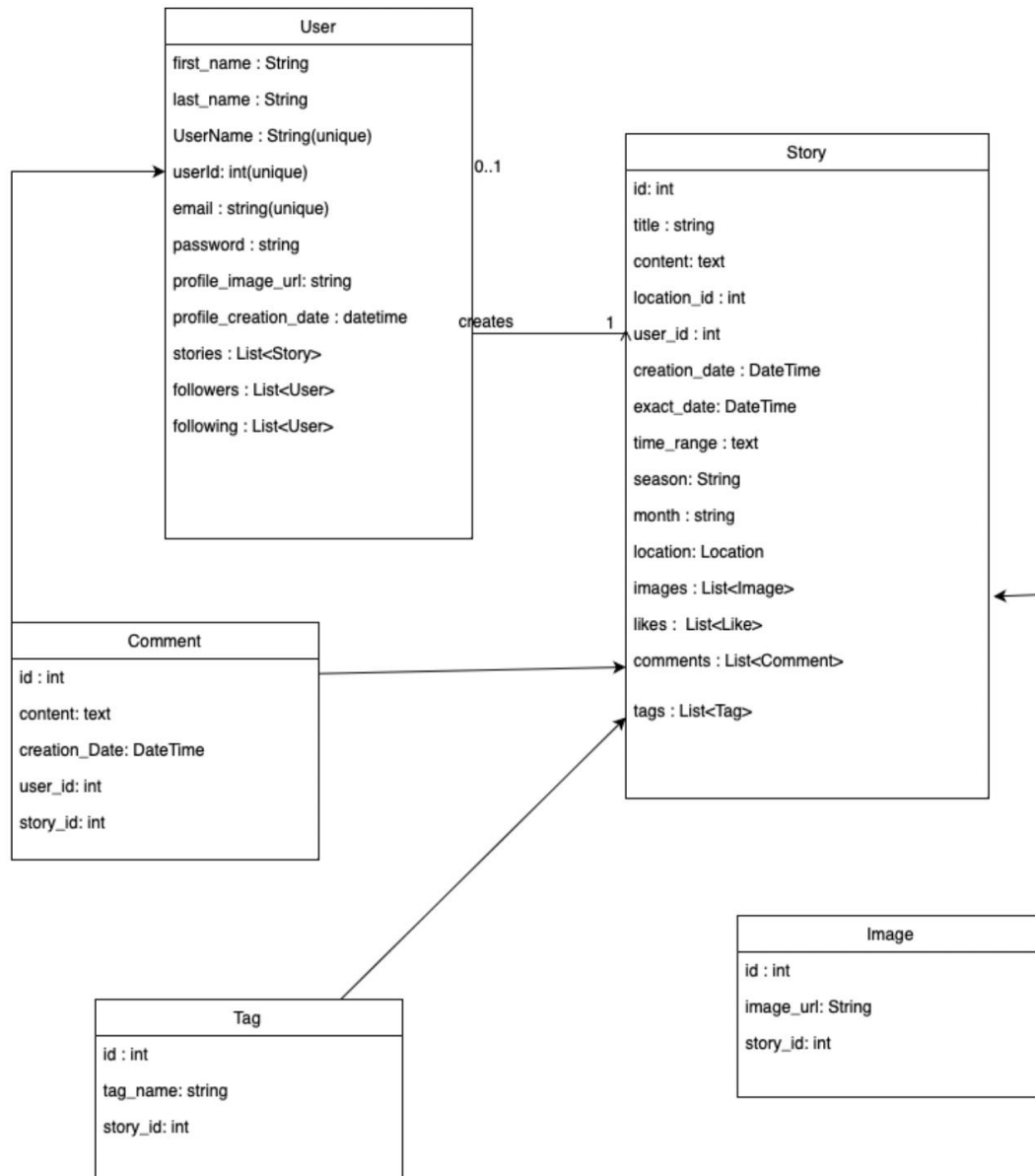
9.The flow of the web application

- 40. The web application shall display users' stories under the My Stories tab.
- 41. The web application shall display users' followed users' stories under the "followed storytellers" tab.
- 42. The web application shall display the profile settings page under the profile icon on the home page.
- 43. The web application shall display adding story future under the "add story" tab.

10.Security

- 44. The web application shall display only the titles of the stories if the user is not registered.
- 45. The web application shall not give the user's personal information to the 3rd parties.
- 46. The web application shall only allow a unique username for each user.
- 47. The web application shall only allow users the sign in if the credentials of the user are correct.

UML diagrams and images



Mockups Design

1.Login & Signup

SIGN-UP

Name

Enter Your Name

Mobile Number

Enter Your Mobile Number

Email

Please Enter Your Email

Password

Please Enter Your Password

Sign-up

If you already have an account? [Login Now](#)

LOGIN

Email

Enter Your Email here

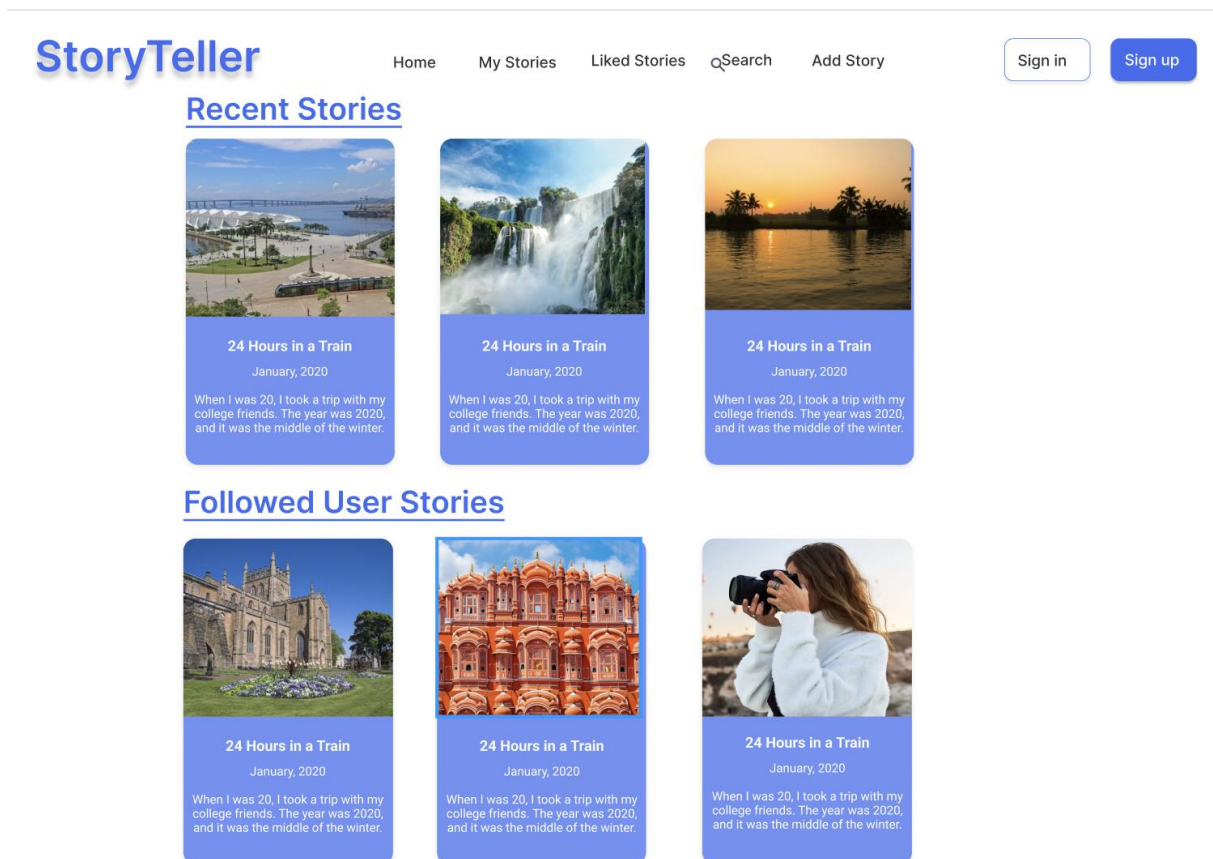
Password

Please Enter Your Password here

Login

If you haven't Registered yet ? [Register Now](#)

2.Home Page



3. My Stories Page

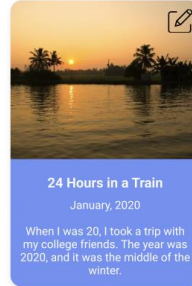
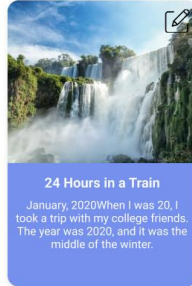
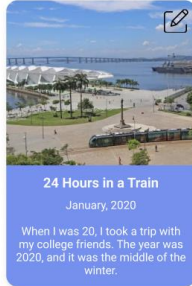
StoryTeller

Home My Stories Liked Stories Search Add Story

Sign in

Sign up

My Stories



4. View Story


StoryTeller

Home My Stories Liked Stories Search Add Story

Sign in

Sign up

View Story



Amine Dağlarcı
@aminegr


Follow Unfollow

Upload Time: 05.01.2020
Location: Van
Date: 05.01.2020

Travel Happy

24 Hours in a Train

When I was 20, I took a trip with my college friends. The year was 2020, and it was the middle of the winter. Me and my 3 other friends decided to go to the city Van by train. The train ride looks about 24 hours from Ankara to Van. Actually, we wanted go to the Kars, but that train was always full so we couldn't find a ticket. Essentially, we just wanted to spend 24 hours on a train ride, so it didn't matter where we ended up. 4 girls took an adventure and go to different cities. We first took an airplane to go to Bitlis from Istanbul. We spent a day in Bitlis then took a bus ride to Van. We also spent a day in the Van. We went to the Akdamar Island with a boat and visit the church in the island. The very next day, we jumped on the train and went to Ankara in 24 hours. The train ride was so fun. We met so many interesting people, learn about their life. We met some people in the dining area and end up having a great conversation that end up with us singing and dancing all night. It was a nostalgic ride and it was one of the best memories of me with my friends.





Add a Comment...



I went to same train ride, it was so fun.




5.Add Story

StoryTeller

[Home](#)[My Stories](#)[Liked Stories](#)[Search](#)[Add Story](#)[Sign in](#)[Sign up](#)

Add Story



Happy Travel +

Choose Time

Choose a Season

Choose a Month

Choose a Year

Choose Time Interval

Start Date

End Date

Choose Exact Date

<

July 2022

>

Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		



Story

When I was 20, I took a trip with my college friends. The year was 2020, and it was the middle of the winter. Me and my 3 other friends decided to go to the city Van by train. The train ride looks about 24 hours from Ankara to Van. Actually, we wanted go to the Kars, but that train was always full so we couldn't find a ticket. Essentially, we just wanted to spend 24 hours on a train ride, so it didn't matter where we ended up. 4 girls took an adventure and go to different cities. We first took an airplane to go to Bitlis from Istanbul. We spent a day in Bitlis then took a bus ride to Van. We also spent a day in the Van. We went to the Akdamar Island with a boat and visit the church in the island. The very next day, we jumped on the train and went to Ankara in 24 hours. The train ride was so fun. We met so many interesting people, learn about their life. We met some people in the dining area and end up having a great conversation that end up with us singing and dancing all night. It was a nostalgic ride and it was one of the best memories of me with my friends.

Website Design

1.Login/Signup

StoryTeller

Log In

[You don't have an account? Sign Up](#)

StoryTeller

Sign Up

[Do you have an account? Login](#)

2.Home Page

StoryTeller

[Home](#)[Stories](#)[My Stories](#)[Add Stories](#)[Profile Settings](#)[Logout](#)

Recent Stories

@storyteller

Title: travel with friends

Month: February

Year: 2020

Tags: travel, friends

When I was 20, I took a trip with my college friends. The year was 2020, and it was the middle of th...

@storyteller

Title: Tokyo trip

Month: April

Year: 2023

Tags: tokyo,

In April 2023, Anna, Robert, Emma, and I embarked on a serene journey to Kyoto, Japan, during the en...

@amine99

Title: Roaming the Wilds of Serengeti

Month: June

Year: 2022

Tags: SafariAdventure, Wildlife

During a thrilling weekend in June 2022, Lily, Ethan, Olivia, and I embarked on an unforgettable saf...

@amine99

Title: Dancing to the Rhythm of Rio's Samba

Date: May 5, 2022, midnight

Tags: Carnival

On the evening of May 5, 2022, Emma, James, and I found ourselves immersed in the lively atmosphere ...

@amine99

Title: Exploring the Bustling Streets of Tokyo

Date: Oct. 22, 2022, midnight

Session: fall

Tags: CulinaryDelights, exploration

On a crisp fall afternoon of October 22, 2022, Matthew, Sarah, Lucas, and I found ourselves immersed...

@storyteller

Title: Winter Thrills and Cozy Firesides at Aspen Ski Resort

Date: Jan. 1, 2022, midnight

End Date: Jan. 3, 2022, midnight

Tags: winter, ski

One winter weekend from February 1 to 3, 2022, Alex, Lisa, and I embarked on an exhilarating adventu...

@storyteller

Title: An Evening of Laughter and Serenity at Central Park

Date: May 10, 2023, 1:28 p.m.

Tags: park, joy

I remember the summer evening of July 10, 2023, when Sarah, John, Emma, and I gathered at Central Pa...

Followed User Stories

@amine99

Title: Dancing to the Rhythm of Rio's Samba

Date: May 5, 2022, midnight

Tags: Carnival

On the evening of May 5, 2022, Emma, James, and I found ourselves immersed in the lively atmosphere ...

@amine99

Title: Exploring the Bustling Streets of Tokyo

Date: Oct. 22, 2022, midnight

Session: fall

Tags: CulinaryDelights, exploration

On a crisp fall afternoon of October 22, 2022, Matthew, Sarah, Lucas, and I found ourselves immersed...

@amine99

Title: Roaming the Wilds of Serengeti

Month: June

Year: 2022

Tags: SafariAdventure, Wildlife

During a thrilling weekend in June 2022, Lily, Ethan, Olivia, and I embarked on an unforgettable saf...

3. My Stories

StoryTeller

[Home](#)[Stories](#)[My Stories](#)[Add Stories](#)[Profile Settings](#)[Logout](#)

Search...

My Stories

@storyteller

Title: travel with friends

Month: February

Year: 2020

Tags: travel, friends

@storyteller

Title: Tokyo trip

Month: April

Year: 2023

Tags: tokyo,

@storyteller

Title: Winter Thrills and Cozy Firesides at Aspen Ski Resort

Date: Jan. 1, 2022, midnight

End Date: Jan. 3, 2022, midnight

Tags: winter, ski

@storyteller

Title: Mesmerizing Vistas and Nature's Grandeur at the Grand Canyon

Month: May

Year: 2022

Tags: sun, joy

@storyteller

Title: Parisian Delights and Timeless Splendor in the City of Love

Month: March

Year: 2023

Tags: paris, love

@storyteller

Title: Sun-Kissed Adventures and Joyful Moments at Venice Beach

Date: Sept. 1, 2022, 10:33 a.m.

Month: September

Tags: sun, fun

4. Profile Settings

StoryTeller

[Home](#)[Stories](#)[My Stories](#)[Add Stories](#)[Profile Settings](#)[Logout](#)

Search...

Settings

Username

storyteller

First Name

amine

Last Name

dağlıçiler

Email

storyteller@gmail.com

Bio

swe573

Profile Picture

Dosyayı Seçin sepi_yok

Submit

5.Add Story

StoryTeller Home Stories My Stories Add Stories Profile Settings Logout

[Upload a Story](#)


Title:

Tags:

radius:

coordinates:

address:



Date Format:

choose a date type

Exact Date:

Date Format:

choose a date type

Exact Date:

Session: choose a session


Decade: choose a decade




Year:



Month: choose a month

Content:

Source



Styles Format Font Size    ?

Software Design

Storyteller is design to allow people share their living stories. Django framework with Python is used for developing this project. PostgreSQL is used for the database of this project. Additionally, geodjango, leaflet, geopy libraries are used for this software.

Backend Design with GeoDjango

Django framework is used to develop this project. It is a python-based framework that uses Model-View-Controller (MVC) architecture. It offers a comprehensive range of features and tools to simplify web development. Django is a popular choice for creating scalable and secure online applications because it encourages the ideas of reuse, modularity, and quick development.

GeoDjango extension for the Django web framework that helps developers to easily create location-based apps and interact effectively with geographic data. It offers a selection of features and tools for managing geographic databases, running spatial queries, and creating maps.

Frontend Design with HTML/CSS/Javascript and Leaflet

In this we application HTML, CSS, and JavaScript are used to create user interface and visual presentation. It focuses on the frontend components' architecture, aesthetics, and interactivity.

Also, an open-source JavaScript library called Leaflet is used to create interactive, editable maps. Leaflet offers a simple and adaptable method for including maps in web applications. It allows users to create a map with search feature, point, line and polygon map drawings.

Database design with PostGIS

In order to use geolocation in this web application PostGIS extension of PostgreSQL database is used. Advanced spatial inquiries and analysis are made possible by PostGIS, which expands PostgreSQL by adding support for geographic objects and spatial indexing. Other than the geolocation, PostGIS also allows to store user data, stories, medias and other operations as well.

Dockerization and Deployment on GCP

Storyteller web application is containerized using Docker. Docker enables you to automatically deploy and manage software programs inside of separated software containers. For the purpose of running programs, it offers a portable and light environment that ensures consistency across various computer settings.

Storyteller web application is deployed to the Google's Cloud Platform(GCP). It is an application and service deployment on the infrastructure that provides a wide range of tools and services that make it easier to deploy different kinds of applications, from straightforward webpages to intricate, scalable architectures.

Status of My Project

1.Login/Signup

1. The web application shall require a password that includes at least eight characters while the user creates an account.
 - Partly completed. The web app requires a password while user creates an account, but it doesn't require at least 8 characters. Documented, tested, and deployed.
2. The web application shall require a unique username while the user creates an account.
 - Completed, documented, tested and deployed.
3. The web application shall require an email from the user while the user creates an account.
 - Completed, documented, tested and deployed.
4. The web application shall not allow special characters to be entered while creating a password for the account.
 - Completed, documented, tested and deployed.

5. The web application shall ask the user to enter the registered email address while signing in.

- Completed, documented, tested and deployed.

6. The web application shall ask the user to enter the account password while signing in.

- Completed, documented, tested and deployed.

2.Profile

7. The web application shall allow users to declare their age.

- Completed, documented, tested and deployed.

8. The web application shall allow users to declare their birth date.

- Completed, documented, tested and deployed.

9. The web application shall allow users to edit their profiles.

- Completed, documented, tested and deployed.

3.Creating a Story

10. The web application shall allow the users to enter the story's location.

- Completed, documented, tested and deployed.

11. The web application shall allow users to enter a time period.

- Completed, documented, tested and deployed.

12. The web application shall allow users to enter the exact date of the story.

- Completed, documented, tested and deployed.

13. The web application shall allow users to declare the characters/persons in the story.

- Not completed, not documented, tested or deployed.

14. The web application shall allow users to enter the emotions of the storyteller via emojis.

- Completed, documented, tested and deployed.

15. The web application shall allow users to add multimedia (images, sounds, or videos) to their stories.

- Completed, documented, tested and deployed.

16. The web application shall allow users to add where the story takes place.

- Completed, documented, tested and deployed.

17. The web application shall require users to enter the title of the story.

- Completed, documented, tested and deployed.

18. The web application shall display a map while the user enters the story's location.

- Completed, documented, tested and deployed.

4.Editing a Story

19. The web application shall allow users to edit their stories' titles.

- Not completed, not documented, not tested and not deployed. Owner of the story can delete the story.

20. The web application shall allow users to edit their stories' content.

- Not completed, not documented, not tested and not deployed. Owner of the story can delete the story.

21. The web application shall allow users to edit their stories' multimedia.

- Not completed, not documented, not tested and not deployed. Owner of the story can delete the story.

22. The web application shall allow users to edit their stories' tags.

- Not completed, not documented, not tested and not deployed. Owner of the story can delete the story.

23. The web application shall allow users to edit their stories' time.

- Not completed, not documented, not tested and not deployed. Owner of the story can delete the story.

5. User Interaction with Each Other

24. The web application shall allow users to add comments on other stories.

- Completed, documented, tested and deployed.

25. The web application shall allow users to like other users' stories.

- Completed, documented, tested and deployed.

26. The web application shall allow users to follow other users.

- Completed, documented, tested and deployed.

27. The web application shall allow users to display followed users' stories on the home page.

- Completed, documented, tested and deployed.

28. The web application shall allow users to display liked stories under Liked Stories Tab.

- Not completed, not documented, not tested and not deployed.

6.Tags

29. The web application shall give predefined tags to categorize the stories.

- Not completed, not documented, not tested, and not deployed.

30. The web application shall allow users to define tags for their stories.

- Completed, documented, tested, and deployed.

31. The web application shall categorize the stories using tags.

- Completed, documented, tested, and deployed.

7.Search

32. The web application shall allow users to search stories based on the story's location.

- Completed, documented, tested, and deployed.

33. The web application shall allow users to search stories based on the keywords.

- Completed, documented, tested, and deployed.

34. The web application shall allow users to search stories based on the tags.

- Completed, documented, tested, and deployed.

8.Filter

35. The web application shall allow users to filter results by title.

- Completed, documented, tested, and deployed.

36. The web application shall allow users to filter results by username.

- Completed, documented, tested, and deployed.

37. The web application shall allow users to filter results by category.

- Not completed, not documented, not tested, and not deployed.

38. The web application shall allow users to filter based on their location.

- Completed, documented, tested, and deployed.

39. The web application shall allow users to filter by date.

- Completed, documented, tested, and deployed.

9. The flow of the web application

40. The web application shall display users' stories under the My Stories tab.

- Completed, documented, tested, and deployed.

41. The web application shall display users' followed users' stories under the "followed storytellers" tab.

- Completed, documented, tested, and deployed.

42. The web application shall display the profile settings page under the profile settings tab.

- Completed, documented, tested, and deployed.

43. The web application shall display adding story future under the "add story" tab.

- Completed, documented, tested, and deployed.

10.Security

44. The web application shall display only the titles of the stories if the user is not registered.

- Completed, documented, tested, and deployed. The app doesn't allow users to enter the application without login.

45. The web application shall not give the user's personal information to the 3rd parties.

- Completed, documented, tested, and deployed.

46. The web application shall only allow a unique username for each user.

- Completed, documented, tested, and deployed.

47. The web application shall only allow users the sign in if the credentials of the user are correct.

- Completed, documented, tested, and deployed.

Status of Deployment

The web application is deployed using google cloud. Deployment URL is <http://34.159.184.66:8000>. The web application is dockerized as well. It is dockerized using docker compose method.

System manual

In order to run this application locally with docker, first you need to pull the project from github. Github link for this project is https://github.com/amineglr/SWE573_daglarguler.

After you pull the the project, you need to create .env file that includes the following:

POSTGRES_USER=admin

POSTGRES_PASS=admin1234

POSTGRES_DBNAME=storyteller

DATABASE=postgres

PG_HOST=postgres-db

PG_PORT=5432

SECRET_KEY=django-insecure-iq096^&nh05=j3\$av2ty=\$qryao9mvl8!djpfw!v7lfjxpnq\$5

DEBUG=True

ALLOWED_HOSTS=localhost 127.0.0.1 [::1] 34.159.184.66

After you add the following file, you should be ready to dockerize the app. Docker should be installed your machine before starting to dockerize the app. When your machine is ready, you should run 'make build' command to dockerize the app and run the application in your local server 127.0.0.1:8000. There is a 'Makefile' file that simplifies the dockerization process. You can create a superuser with 'make superuser' command.

User manual

Through <http://34.159.184.66:8000> users can enter the web application. The landing page is login page, if you didn't signup for this website, you should click to signup button, fill the necessary areas and after that you can login to the application. After the login, you will lend to the Home page, upper part of the home page shows most recent 10 stories that has been uploaded to the website, under that you can see the stories of people who you follow. When you view the story, you can see the story, you can like the story, you can add comment on the story, click on the authors name and follow the author. You can see the location of the added story, date of the story and the content of the story. You can delete a story if you are the author of the story. At the 'my stories' tab you can see your stories. At the profile settings page, you can see your profile settings and edit your settings. You can search stories based on their title, tags, location, date, author, and content. At the 'add stories' tab, you can

add a story. You need to enter title, location, date and content. You can also add tags as optional. There are various way to add date. If you choose exact date option, you can enter exact date with time, session, month, year, decade. If you choose date range, you can enter all of the option for start date and end date. While entering the content, you can add images through a link, you can add emojis and other multimedia option. It is a rich text are so you can make the content bold, italic etc.

Test results

Unit tests are conducted for user login process, home page landing, adding stories process, my stories page, view stories and deleting stories process, adding comment process, searching stories process, and liking stories process. All of the mentioned unit test gives positive results.

According to the user test, there is no signification bug that effects the usage of the web application.

Demonstration Link

- https://drive.google.com/drive/folders/15qyXODsC9HLaD33nnoNhS86WuR4eA7xa?usp=share_link