

## **MEMORY PLATFORM**

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SWE573 - Spring 2023 - Term Project

Story sharing web app

**Github Repository:** [https://github.com/ckertam/SWE573\\_SPRING\\_2023](https://github.com/ckertam/SWE573_SPRING_2023)

**Git Tag Version:** v0.9.2

**Git Tag Link:** [https://github.com/ckertam/SWE573\\_SPRING\\_2023/releases/tag/v0.9.2](https://github.com/ckertam/SWE573_SPRING_2023/releases/tag/v0.9.2)

**Deployment (Project) URI:** <http://34.173.225.192:3000>

### **HONOR CODE**

Related to the submission of all the project deliverables for the Swe573 2023 Spring semester project reported in this report, I 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.

Kemal Caner Ertam

**Signature**



# Content

<b>1. Project Details.....</b>	<b>3</b>
1.1. Overview.....	3
1.2. Software Requirements Specification.....	3
1.3. System Requirements.....	4
1.4. Design.....	4
1.4.1. Planned Design MockUp.....	4
1.4.2. Final Design.....	4
1.5. UML Diagrams.....	4
1.6. Status of Project.....	4
1.6.1. General Information.....	4
1.6.2. Requirements Status.....	4
1.7. Status of Deployment.....	4
<b>2. Needed Information for Deployment.....</b>	<b>4</b>
2.1. .env Files.....	4
2.2. System Manual.....	4
<b>3. User Testing.....</b>	<b>4</b>
3.1. Test Users in Production.....	4
3.2. User Manual.....	4
<b>4. Unit Tests.....</b>	<b>4</b>
4.1. Test Information.....	4
4.2. Test Results.....	4
<b>5. Project Demo.....</b>	<b>4</b>
<b>6. References.....</b>	<b>4</b>

# 1. Project Details

The main purpose of this app is to enable people to share their memories and stories on a platform and to do so in a social way with other people.

## 1.1. Overview

In this app, users must register and log in to share their stories and see the stories of other users. When registering, users must set a username, e-mail and password. Then they can log in to the application with their username and password. After logging in, they will be presented with the recently created stories. Users can go to the profiles of the people they want from the user search section or by clicking on the user profiles in the stories. They can follow other profiles. In this way, they can only see the stories of the users they follow from the "what I follow" section on the homepage. In addition, when users want to create stories themselves, they can create these stories from the create story section. In addition to content and title, they can add an unlimited number of locations, different types of time and tags to these stories. Users can also find stories with the details they want by searching all this content from the search page. Also users can comment on stories and like stories.

## 1.2. Software Requirements Specification

### 1.2.1. Introduction

The purpose of this section is to explain the system and expectations clearly. In this section we will talk about the scope, definitions and requirements of the project.

#### 1.2.1.1. Scope of the Project

The aim of this project is for many people to share their stories and for people with common stories to remember their memories and to share those good or difficult times with others instead of reliving them alone. Also, rather than a blog, this platform allows users to search for stories of any time, location, genre and content. Users can also comment on stories and share their opinions.

#### 1.2.1.2. Definitions of the Project

**Software:** The product with backend, frontend and database.

**User:** Person who uses the website.

**User Interface:** The website.

**Story:** A text with title and content that user's can create.

**Location:** Location of the stories that shows location of a story happened.

**Tag:** Tag of the stories that shows labeling of story.

**Time:** Time of the stories that shows the story's time information. Time can consist of years and seasons. Or it may consist of a specific start day or a specific start and end day.

**Comment:** Can be written by user's to stories.

## **1.2.2. System Requirements**

- When the user clicks "Sign up", the memorial story platform should open the form of "Sign up".
- When the user clicks "Login", the memorial story platform should open the form of "Login".
- When the user signs in, the memorial story platform should redirect the user to the login page.
- When the user logs in, the memorial story platform shall redirect the user to the homepage.
- The username of a user can consist of only varying characters.
- In the memorial story platform users have to login to create a new memorial story.
- In the memorial story platform users have to login to comment on memorial stories.
- Email that is used for registration should be unique.
- The memorial story platform allows users can have a profile page.
- The memorial story platform allows users can add a profile photo to her/his profile page.
- The memorial story platform allows users can add about me to her/his profile page.
- The memorial story platform allows users can edit their profile photos.
- The memorial story platform allows users can edit their about me part.
- The memorial story platform allows users to see other users' profiles.
- When the user wants to personalize her/his profile page, she/he needs to click the "my profile" button on the right upper side of any page.
- If the user is logged in then the user can create a new story by clicking the "Create Story" button on top left.
- When the user wants to follow another user, she/he needs to click the "follow" button while she/he is on the user's profile.
- When the user wants to unfollow another user, she/he needs to click the "unfollow" button while she/he is on the user's profile.
- If a user clicks a username in any page of the memorial story platform, she/he will be directed to the user's profile.
- In the memorial story platform users will share their memorial stories.
- When the user clicks the "Homepage" button on the right upper side, the user will be directed to the home page.
- When the user clicks the "All Stories" button on the home page, then the memorial story platform will show the latest 10 stories titles to the user.
- When the user clicks the "Followings" button on the home page, then the memorial story platform will show the latest 10 stories titles to the user.
- When the user clicks a title of the story on the home page, the memorial story platform will show the content of the story.

- The memorial story platform will open a search page when the user clicks the search button on the top left side.
- The search page will allow the user to enter a title.
- The search page will allow the user to enter location.
- The search page will allow the user to enter a radius after selecting a location.
- The search page will allow the user to select a specific date.
- The search page will allow the user to select an interval date.
- The search page will allow the user to select a year.
- The search page will allow the user to interval year.
- The search page will allow the user to enter a username.
- The search page will allow the user to enter a tag.
- When the user clicks the "search" button if at least one search criteria is entered, the memorial story platform will show the most related 10 stories to the user.
- The memorial stories must have location information.
- The memorial stories must have one of the date information.
- The date information can consist of year and season as time info.
- The date information can consist of start and end year and season as time info.
- The date information can consist of a specific date as time info.
- The date information can consist of interval date as time info.
- The date information can consist of decades as time info.
- The memorial stories will have titles.
- The memorial stories will have tag info.
- Tags of the memorial stories can be added by comma separated text.
- The memorial stories' content can include photos.
- The memorial stories' content can include photo links.
- When the user clicks the "create story" button, the story will be published on the memorial story platform.
- In the memorial story platform users can comment on others memorial stories.
- In the memorial story platform comments can have hashtags.
- When the user wants to like a story she/he can click the heart button to like the story.
- When the user wants to unlike a story that she/he already liked she/he can click the heart button to like the story.
- When the user wants to add some comment on a story, the user clicks the button "Comment" and leaves his comment.
- The memorial story platform should allow the users to edit the stories' content after they share it.
- The memorial story platform should allow the users to edit the stories' time after they share it.
- The memorial story platform should allow the users to edit the stories' location after they share it.

- If the user wants to create an account with an existing email, the memorial story platform shall give "this email already been used" error.
- If the user's passwords do not match the required conditions in Sign in Form, the memorial story platform shall give the "password not allowed" error.
- If the user wants to login with a non-existing email, the memorial story platform shall give "this account does not exist" error.
- If the user enters a wrong password, the memorial story platform shall give an "incorrect password" error.
- If the entered username does not match the requirements, then the memorial story platform shall show the "Username cannot be used" error.
- If the entered username already exists, then the memorial story platform shall show the "Username already exists" error.
- If the user's content does not have needed content criterias, then the memorial story platform shall show the "Content does not match required criterias" message.
- When the user clicks the "search" button if at least one search criteria is not entered, the memorial story platform will show an error.

## 1.3. Design

### 1.3.1. Planned Design MockUp

#### Register Screen

Web Modal

**Join Us!**

---

Sign Up with your Email

Email Address

Password

>Password should be min 8 characters

Re-Type Password

Passwords need to match

Sign Up

Already have an account? [Log in](#)

#### Login Screen

Frame 12

## Welcome

Sign In with your Email

Email Address

Insert your email

Password

Insert your password

[Forgot password?](#)

[Log In](#)

Don't have an account? [Register](#)

## Profile Page



### About Me

I am Kemal Caner Ertam. I was born in Zonguldak, Ereglî. I was born in 14.10.1996.

**ckertam**

### My Recent Stories

**My Second Birthday**

Zonguldak, Ereglî



14.10.1997

**High School Memories**

Istanbul, Ortakoy



2012 - 2016

## Home Page

The screenshot shows a user profile for 'Kemal Caner Ertam' with a small profile picture. Below the profile, there are three navigation tabs: 'All' (selected), 'Followings', and 'Liked'. A search bar and a refresh/circular arrow icon are located at the top right. A 'Filter by Nearest' section includes a slider for distance, with markers at '0 km' and '10 km'. Below this, four story cards are listed:

- Earthquake in Zonguldak** (by Kemal Caner Ertam) - Location: Zonguldak, Eregli, Date: 26.08.1999
- Ferry Trip** (by Kemal Caner Ertam) - Location: Istanbul, Ortakoy, Date: 2010
- Community Day Pokemon Go** (by Kemal Caner Ertam) - Location: Istanbul, Besiktas, Date: 06.02.2023
- Marmaris on Fire** (by Kemal Caner Ertam) - Location: Mugla, Marmaris, Date: 22.09.2022

A navigation bar with numbered buttons (1, 2, ..., 6, 7, ...) is at the bottom.

## Story Creation Page

The screenshot shows the 'Story Creation Page' for 'Kemal Caner Ertam'. It includes the following fields:

- Add Title**: A text input field with placeholder 'Enter story title.'
- Select Start Location**: A text input field with placeholder 'Enter a location.' and a location pin icon. An 'Exact Location' radio button is selected.
- Select End Location**: A text input field with placeholder 'Enter a location.' and a location pin icon. An 'Interval Location' radio button is selected.
- Select Time**: A date picker showing the month of August. The date '13' is highlighted, indicating it's the current day. Other dates like 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31 are also visible. Buttons for 'Before', 'Interval', and 'After' are present. A 'Close' button and a 'Continue' button are at the bottom of the calendar.
- Add Photo**: A placeholder text 'Enter a photo.'
- Comment**: A large text area with placeholder 'Enter a comment.'
- Labels**: A list of existing labels: 'Childhood x', 'Earthquake x', and 'about test'. A search bar above the list says 'Search by word to add label'. The list shows: 'Söz gümüşre süküt altındır.', 'Damlaşa damlaya göl olur.', 'Earthquake', and 'Childhood'.
- Buttons**: 'Save' and 'Publish' buttons at the bottom right.

## Story Details Page



Kemal Caner Ertam

Search Share Comment



**Earthquake in Zonguldak**

The first character Aysen is my mother. She has been living in Zonguldak since 1971. When the year was 1999, she was one of the people affected by the earthquakes in Gölcük and Düzce. I was only 3 years old at the time of the earthquake and they went outside excitedly. She spent about 2 nights outside in a one-story building with me and my father. After the first earthquake in August, my mother did a lot of research and found out that there might be an earthquake in Düzce. Because there were aftershocks every day and there might be another earthquake, she went out every day after my father went to work and sat in the car with me. After the earthquake, many things changed not only in my mother's life but also in the lives of all the people affected by the earthquake. Some buildings were demolished because of the earthquake, some buildings were demolished to be renovated after the earthquake. After the earthquake, a lot of lives and order had to be completely rebuilt.

**Story Labels**

Earthquake
Childhood
BadTimes

**Location**



This story is written by Aysen Ertam

**Photo Gallery**




← →

Enter a comment.



Oguzcan Sennas

What a nice story. #cool

HASHTAG Send Comment



Uz

What a nice story. #wishesouldlivethatagain

Send Comment



Murat Boz

Çok zor zamanlardı :)

Send Comment

1 2 3 4 5 6 7 8 9

## Search Page



Kemal Caner Ertam

Share Comment

**TITLE**

**TAGS**

**USER**

Enter one of them

**LOCATION**

**Filter by Nearest**

0 km 10 km
(Range)

**Select Start Location**

**Select End Location**

**TIME**

Select Dates
(Range)

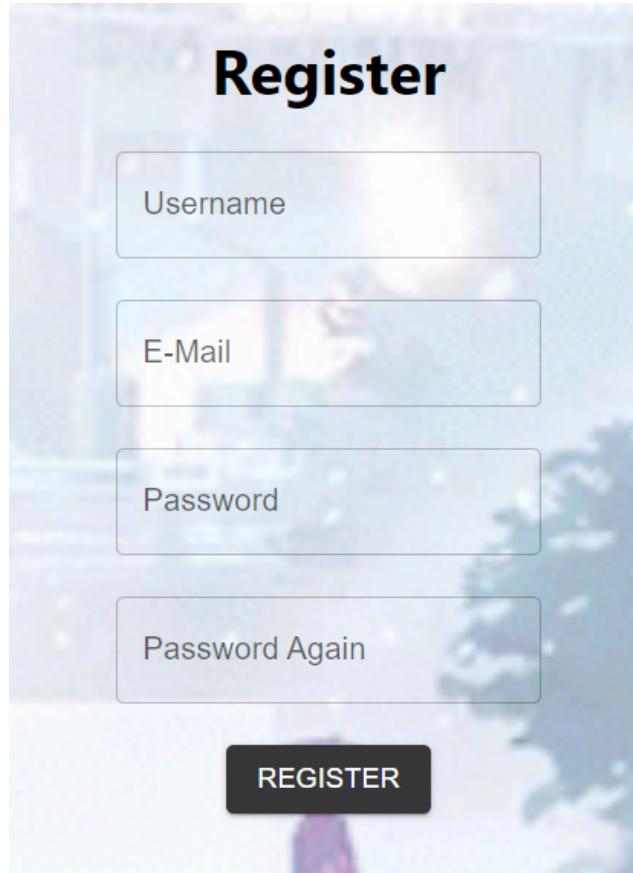
August				September			
Before		Interval				After	
Mo	Tu	We	Th	Fr	Sat	Su	
29	30	31	2	3	4	5	
6	7	8	9	10	11	12	
13	14	15	16	17	18	19	
20	21	22	23	24	25	26	
27	28	29	30	31			

Close Select

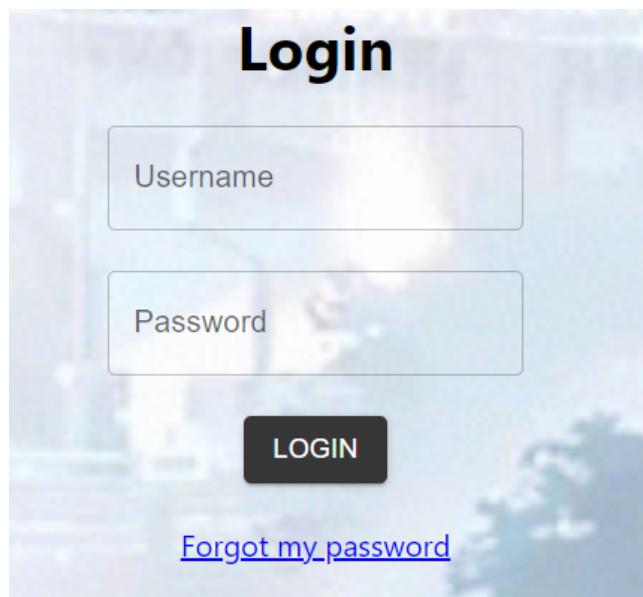
Search

### 1.3.2. Final Design

#### Register Page



#### Login Page



## Profile Page

cano1496's Profile

Upload Profile Photo

Remove Profile Photo

Biography  
I am a mathematician.

EDIT

Followers  
0

Stories

ilk Oyun  
Creation Date: 16.05.2023

PREVIOUS | 1 | NEXT

## Home Page(All stories)

ALL STORIES

PREVIOUS | 1 | NEXT

## Home Page(Followings stories)

ALL STORIES

PREVIOUS | 1 | NEXT

## Story Creation Page

The screenshot shows the 'Create Story' interface. At the top, there's a navigation bar with 'Search Stories', 'Create Story', and 'User Profile'. A search bar and a 'LOGOUT' button are also present. The main area features a large map of the world with a red marker pointing to Baku, Azerbaijan. To the left of the map is a text editor window with a title field, a rich text toolbar, and a content area. Below the content area is a 'Tags' section with a dropdown menu for 'Date Type' containing options like 'Year', 'Interval Year', 'Normal Date', 'Interval Date', and 'Decade'.

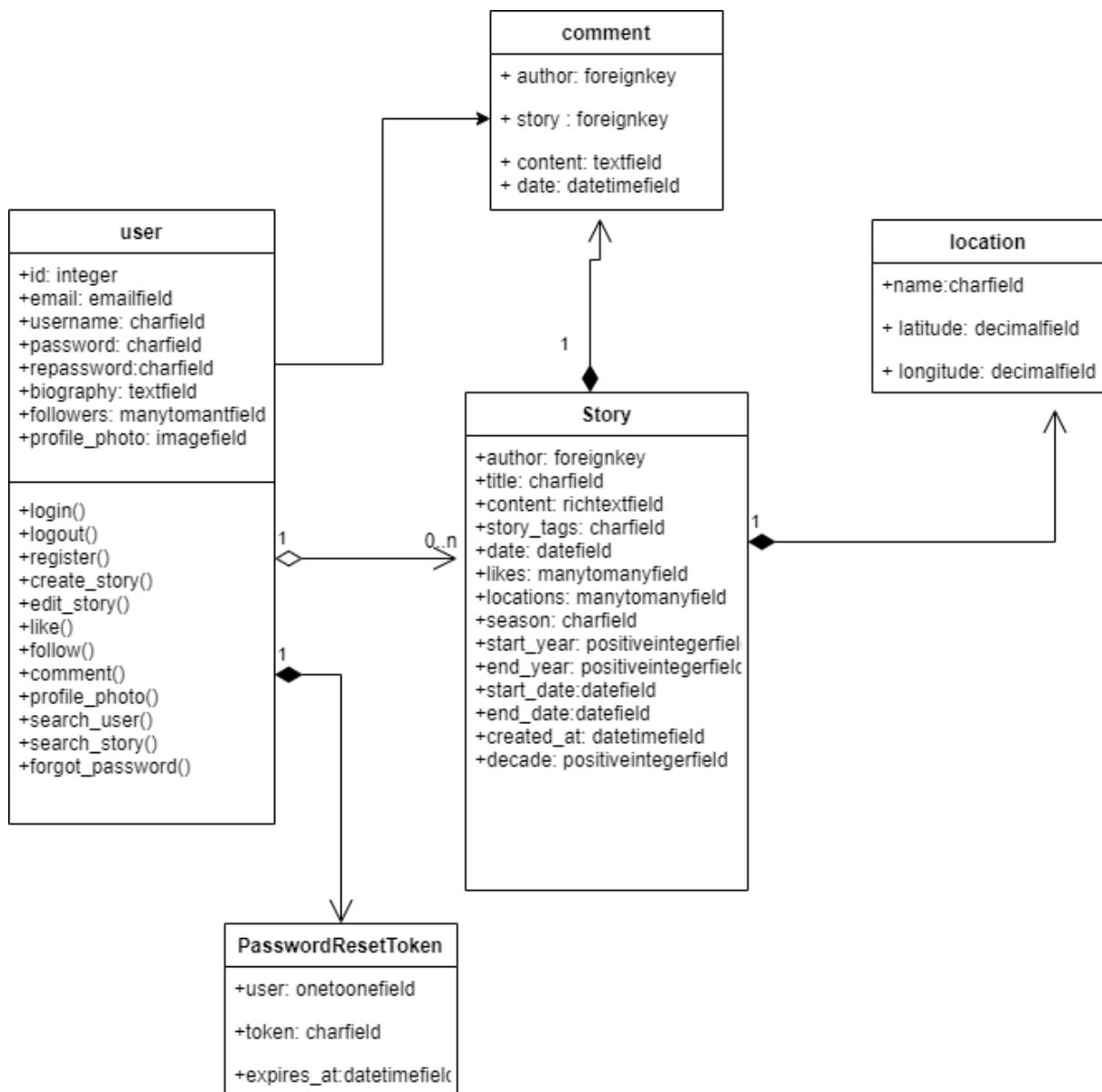
## Story Details Page

The screenshot shows the 'Story Details' page for a story titled 'Good old days'. The story content is: 'Once upon a time, when we were children we were playing counter strike 1.6. And that was the greatest game I ever played at that age. Usually my friends choose to be terrorist. I was killing them and that was great experience for 10 years later.' Below the story is a map of Baku, Azerbaijan, with several location markers. The story has an author listed as 'semen123', a creation date of '25.04.2023', and three tags: 'childhood', 'fun', and 'games'. There is a comment section where a user named 'zane114' has posted a 'Perfect Story!' comment from '19.05.2023 17:32:29'. The comment has a timestamp and a 'SUBMIT' button.

## Search Page

The screenshot shows the 'Story Search' page. It features a search bar at the top with fields for 'Search by Title', 'Search by Author', 'Search by Tag', 'Date Type', and 'Location'. Below the search bar is a map of the world with a red marker pointing to Baku, Azerbaijan. A button labeled 'SEARCH STORY' is located at the bottom of the map area.

## 1.4. UML Diagram



## 1.5. Status of Project

REQUIREMENT	STATE
When the user clicks "Sign up", the memorial story platform should open the form of "Sign up".	DONE
When the user clicks "Login", the memorial story platform should open the form of "Login".	DONE
When the user signs in, the memorial story platform should redirect the user to the login page.	DONE
When the user logs in, the memorial story platform shall redirect the user to the homepage.	DONE
The username of a user can consist of only varying characters.	DONE
In the memorial story platform users have to login to create a new memorial story.	DONE
In the memorial story platform users have to login to comment on memorial stories.	DONE
Email that is used for registration should be unique.	DONE
The memorial story platform allows users can have a profile page.	DONE
The memorial story platform allows users can add a profile photo to her/his profile page.	DONE
The memorial story platform allows users can add about me to her/his profile page.	DONE
The memorial story platform allows users can edit their profile photos.	DONE
The memorial story platform allows users can edit their about me part.	DONE
The memorial story platform allows users to see other users' profiles.	DONE
When the user wants to personalize her/his profile page, she/he needs to click the "my profile" button on the right upper side of any page.	DONE
If the user is logged in then the user can create a new story by clicking the "Create Story" button on top left.	DONE
When the user wants to follow another user, she/he needs to click the "follow" button while she/he is on the user's profile.	DONE
When the user wants to unfollow another user, she/he needs to click the "unfollow" button while she/he is on the user's profile.	DONE
If a user clicks a username in any page of the memorial story platform, she/he will be directed to the user's profile.	DONE
In the memorial story platform users will share their memorial stories.	DONE

When the user clicks the "Homepage" button on the right upper side, the user will be directed to the home page.	DONE
When the user clicks the "All Stories" button on the home page, then the memorial story platform will show the latest 10 stories titles to the user.	DONE
When the user clicks the "Followings" button on the home page, then the memorial story platform will show the latest 10 stories titles to the user.	DONE
When the user clicks a title of the story on the home page, the memorial story platform will show the content of the story.	DONE
The memorial story platform will open a search page when the user clicks the search button on the top left side.	DONE
The search page will allow the user to enter a title.	DONE
The search page will allow the user to enter location.	DONE
The search page will allow the user to enter a radius after selecting a location.	DONE
The search page will allow the user to select a specific date.	DONE
The search page will allow the user to select an interval date.	DONE
The search page will allow the user to select a year.	DONE
The search page will allow the user to interval year.	DONE
The search page will allow the user to decade.	DONE
The search page will allow the user to enter a username.	DONE
The search page will allow the user to enter a tag.	DONE
When the user clicks the "search" button if at least one search criteria is entered, the memorial story platform will show the most related 10 stories to the user.	DONE
The memorial stories must have location information.	DONE
The memorial stories must have one of the date information.	DONE
The date information can consist of year and season as time info.	DONE
The date information can consist of start and end year and season as time info.	DONE
The date information can consist of a specific date as time info.	DONE
The date information can consist of interval date as time info.	DONE
The date information can consist of decades as time info.	DONE
The memorial stories will have titles.	DONE
The memorial stories will have tag info.	DONE
Tags of the memorial stories can be added by comma separated text.	DONE

The memorial stories' content can include photos.	DONE
The memorial stories' content can include photo links.	DONE
When the user clicks the "create story" button, the story will be published on the memorial story platform.	DONE
In the memorial story platform users can comment on others memorial stories.	DONE
In the memorial story platform comments can have hashtags.	DONE
When the user wants to like a story she/he can click the heart button to like the story.	DONE
When the user wants to unlike a story that she/he already liked she/he can click the heart button to like the story.	DONE
When the user wants to add some comment on a story, the user clicks the button "Comment" and leaves his comment.	DONE
The memorial story platform should allow the users to edit the stories' content after they share it.	DONE
The memorial story platform should allow the users to edit the stories' time after they share it.	NOT DONE
The memorial story platform should allow the users to edit the stories' location after they share it.	NOT DONE
If the user wants to create an account with an existing email, the memorial story platform shall give "this email already been used" error.	DONE
If the user's passwords do not match the required conditions in Sign in Form, the memorial story platform shall give the "password not allowed" error.	NOT DONE
If the user wants to login with a non-existing email, the memorial story platform shall give "this account does not exist" error.	NOT DONE
If the user enters a wrong password, the memorial story platform shall give an "incorrect password" error.	NOT DONE
If the entered username does not match the requirements, then the memorial story platform shall show the "Username cannot be used" error.	NOT DONE
If the entered username already exists, then the memorial story platform shall show the "Username already exists" error.	NOT DONE
If the user's content does not have needed content criterias, then the memorial story platform shall show the "Content does not match required criterias" message.	NOT DONE
When the user clicks the "search" button if at least one search criteria is not entered, the memorial story platform will show an error.	NOT DONE

## 1.6. Status of Deployment

### 1.6.1. General Status of Deployment

The project is ready and deployed on a GCP Virtual Machine. Also, one can clone the main branch of the repository and with dockerization one can run the whole project locally. When deploying the project with docker the project creates 3 different containers for backend, frontend and database.

### 1.6.2. Detailed Dockerization Information

Project is dockerized by docker-compose version 3.7 . After dockerization there are 3 containers created.

- **Backend Container:**
  - Uses python 3.11
  - Install required libraries via requirements.txt
  - Copy necessary folders
  - Runs migrate and runserver commands
- **Frontend Container:**
  - Uses node 18
  - Copy necessary folders
  - Install necessary packages
  - Runs npm start command
- **Database Container:**
  - Uses postgres 15 version.

**Backend Dockerfile URL:**

[https://github.com/ckertam/SWE573\\_SPRING\\_2023/blob/main/backend/Dockerfile](https://github.com/ckertam/SWE573_SPRING_2023/blob/main/backend/Dockerfile)

**Frontend Dockerfile URL:**

[https://github.com/ckertam/SWE573\\_SPRING\\_2023/blob/main/backend/frontend/Dockerfile](https://github.com/ckertam/SWE573_SPRING_2023/blob/main/backend/frontend/Dockerfile)

**Docker-compose.yml URL:**

[https://github.com/ckertam/SWE573\\_SPRING\\_2023/blob/main/docker-compose.yml](https://github.com/ckertam/SWE573_SPRING_2023/blob/main/docker-compose.yml)

### 1.6.3. Detailed Deployment Information

The project was deployed through Google Cloud Platform. An EC2 - Small virtual machine is rented to deploy the project. Git installed to the virtual machine. After that the project's main branch cloned to the virtual machine. Docker and docker-compose installed to

the machine. After that direct to the necessary folder then run docker-compose up –build function to deploy the project.

## 2. Needed Information for Deployment

### 2.1. System Manual

To run the project on a local machine you need to install docker first. Then you need to start docker. If you are ready with the docker you can clone the project from the git repository. After cloning the project you need to go inside the “SWE573\_SPRING\_2023” folder then run the below command.

**docker-compose up –build**

After running the above command it will install necessary dependencies to docker containers for backend, frontend and a postgres database.

After everything works correctly you can visit <http://localhost:3000> to open the website.

## 3. User Testing

### 3.1. Test Users in Production

As a test user one can use the below user.

**username:** cano1496

**password:** concon

### 3.2. User Manual

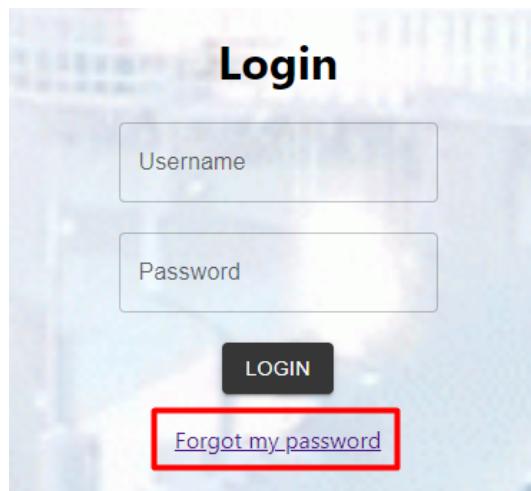
- Visit <http://34.173.225.192:3000>
- On the main page the user will see Register and Login buttons on the left upper side.
- If the user is not registered yet, the user can click Register Button.



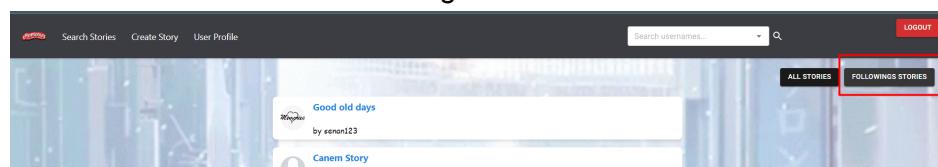
- If the user already has an account or you registered. Users can go to the Login Page via Login Button.



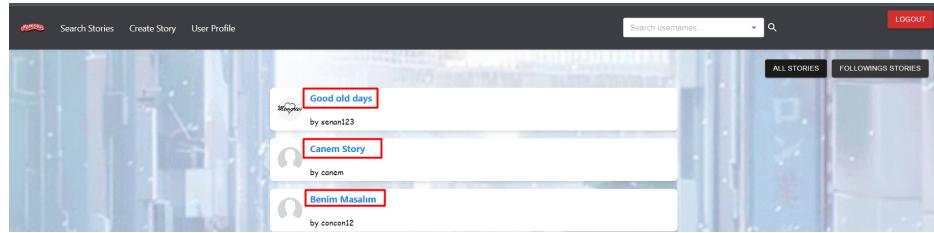
- If the user already has an account and forgot your password the user can click "Forgot my password" part on the Login page.



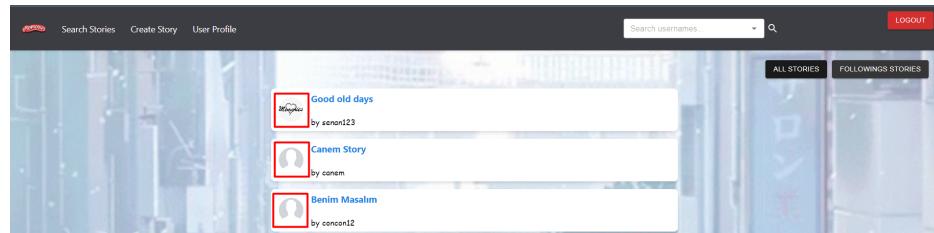
- Then the user can enter your e-mail address to achieve an email. And reset the user's password via link.
- Now users can login with their username and password.
- If the user's username or password is not correct or does not exist the user cannot log in.
- If the user successfully logged in the user will see the latest 10 stories.
- If the user wants to see not all the stories and only the stories that are written by the user's follows the user can click following stories.



- When users click a story's title the user will be directed to the story's details.



- When users click the profile photo of the story's author the user will be directed to the user's profile page.



- The directed story page will be shown below

Good old days Location info

Once upon a time, when we were child we were playing counter strike 1.6. And that was the greatest game I ever played at that age. Usually my friends choose to be terrorist. I was killing them and that was great experience for 10 years boy.

Content of the story

Story Time

Start: January 1, 2007 End: January 1, 2010

Time Info of the story

Comments

Author of the story

Creation Date

Tags of the story

Author

Creation Date

Tags

Like Button

Bakü

Map showing the location of Bakü, Azerbaijan, with a red arrow pointing to the city name. The map includes labels for Harita, Uydu, BAKHAN, SİLELERİ, ER MESEDİ, MİLLİ İLKOKUL, DƏRİNŞOOL, NİZAMI, Heydar Əliyev Mərkəzi, 28 MALL, Herbi Qənimətler Parkı, Bakü Marriott Hotel Boulevard, and Google. A small yellow figure icon is also present.

PREVIOUS 1 2 3 4 5 6 7 8 9 10 NEXT

Add a comment

Submit You can send a new comment from here

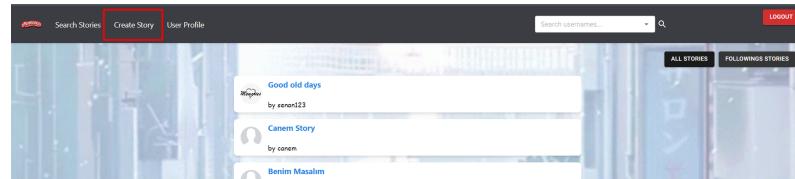
- Users can see the content of the story on the left side.
  - On the right side users can see location info on a google map.
  - Story's time info stands on the left bottom side of the story area.
  - On the left bottom side of the google maps users can see the author.
  - When a user clicks on the author name it will direct users to the author's profile page.
  - On the middle bottom side of the google maps users can see the creation date of the story.
  - On the right bottom side of the google maps users can like or dislike the story and can see the like count of the story.
  - Also bottom of the author, creation date and like info part users can see tags of the story. The tags define the story in a manner.
  - If users want to see the comments of the story they are standing bottom side of story details.
  - Users can add new comments to stories. Via entering a comment and clicking on the submit button on the left bottom side of the whole page.  
  - There is pagination here so users can change the comments page via clicking next, previous or number buttons.



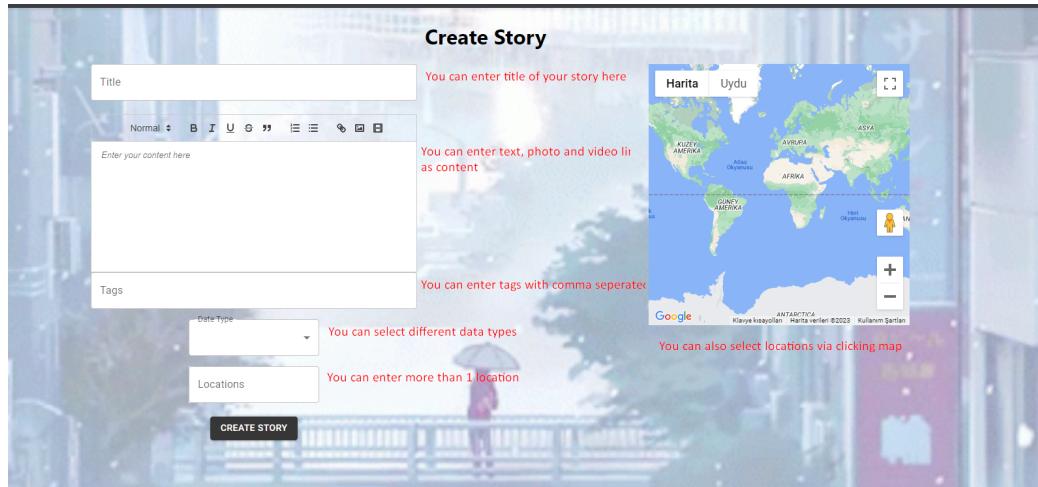
- Users also can go to the commenter's profile page via clicking the commenter's username or profile page on the comment section.



- If the user wants to create a new story the user needs to click "Create story" button on the left upper side.



- When the user clicks the "Create Story" button the user will see the page below.



- Users can enter a title on the top side.
- Users can enter content on the below side of the title part. As content users can upload photos, enter texts and also link video links.
- Users can enter tags with comma separated text on the below side of the content part.
- Users can enter different types of dates on the date type part. First user needs to select it.

- If the user selects “Year” as date type the user needs to enter a year and select a season on the dropdown menu. Entering a season is not necessary.

The left screenshot shows a dropdown menu labeled "Date Type" with the option "Year" highlighted by a red box. Below it, a list of other date types is visible: Interval Year, Normal Date, and Interval Date. The right screenshot shows the "Date Type" dropdown set to "Year". It includes a "Year" input field, a "Locations" button, a "CREATE" button, and a "Season" dropdown menu with options: Spring, Summer, Fall, and Winter.

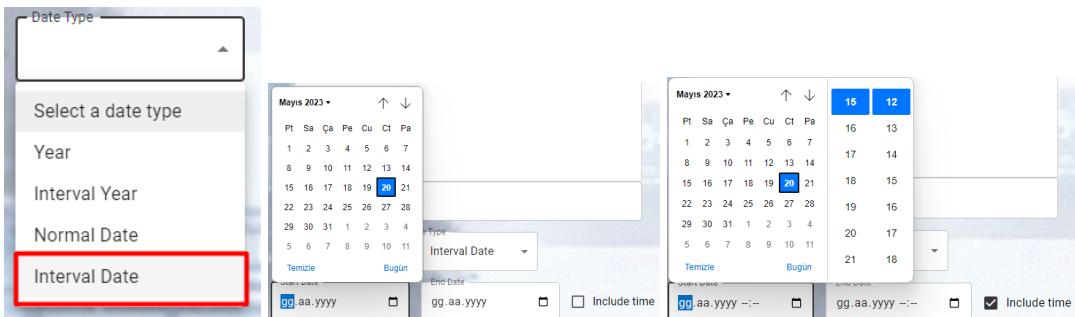
- If the user selects “Interval Year” as date type the user needs to enter a start year, end year and select a season on the dropdown menu. Entering a season is not necessary.

The left screenshot shows a dropdown menu labeled "Date Type" with the option "Interval Year" highlighted by a red box. Below it, a list of other date types is visible: Year, Normal Date, and Interval Date. The right screenshot shows the "Date Type" dropdown set to "Interval Year". It includes "Start Year" and "End Year" input fields, a "Locations" button, a "CREATE STORY" button, and a "Season" dropdown menu with options: Spring, Summer, Fall, and Winter.

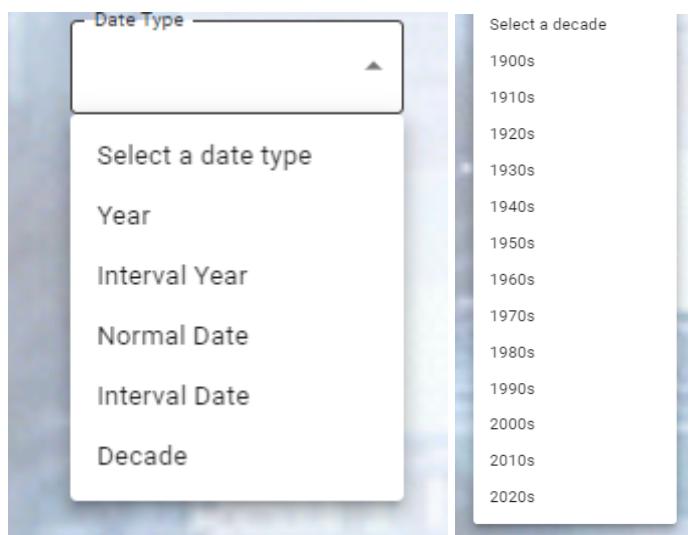
- If the user selects “Normal Date” as date type the user needs to select a date from the date selection box. Also if the user clicks on the “Include Time” radio button. Users can enter a date with hours and minutes.

The left screenshot shows a dropdown menu labeled "Date Type" with the option "Normal Date" highlighted by a red box. Below it, a list of other date types is visible: Year, Interval Year, and Interval Date. The middle screenshot shows a date picker for May 2023. The date 20 is highlighted with a blue box. The right screenshot shows the same date picker with the date 20 selected and the "Include time" checkbox checked, which is marked with a checkmark.

- If the user selects “Interval Date” as date type the user needs to select a start date and end date from the date selection box. Also if the user clicks on the “Include Time” radio button. Users can enter a date with hours and minutes.



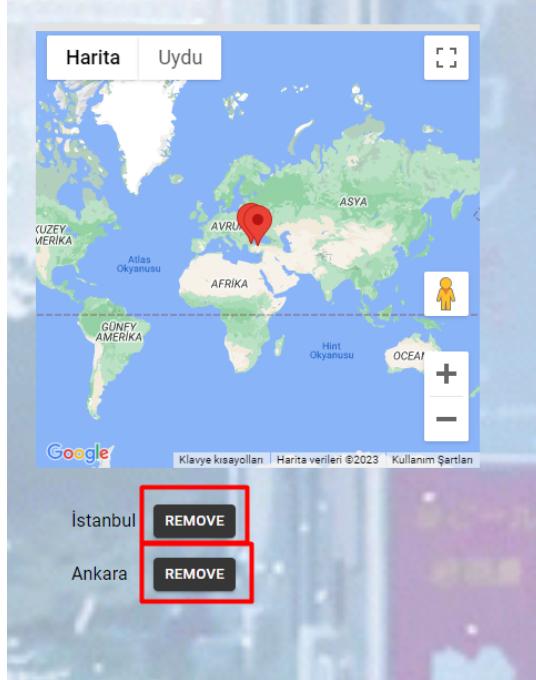
- If the user selects “Decade” as date type the user needs to select a decade from the decade dropdown.



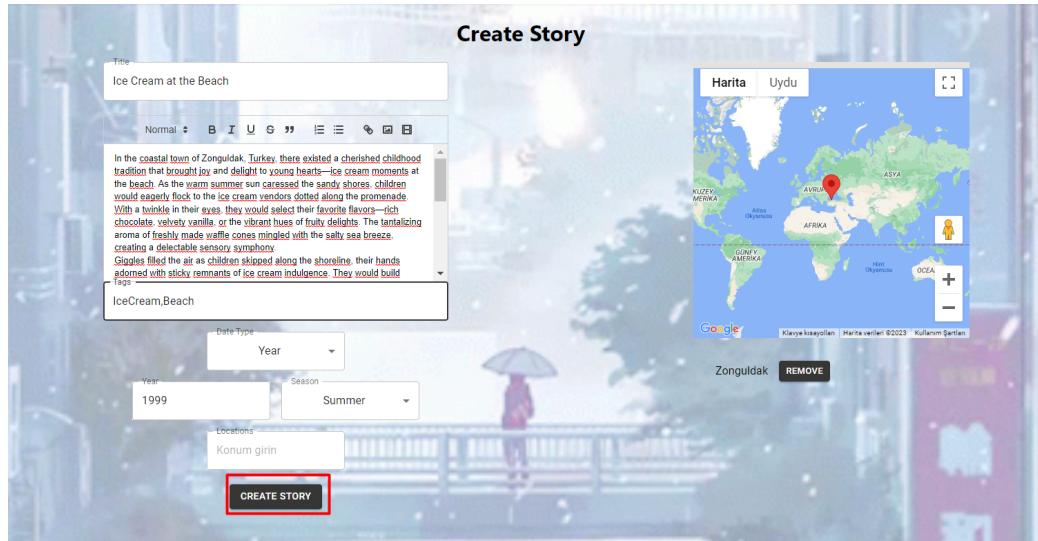
- Users can enter location information from the bottom side of the time information. Users can enter a value to search from google maps. Also users can select a location from the map by clicking the map.



- Users can remove the selected locations via the remove button on the bottom side of the map if the user does not want to add it to the story.



- Then the user can click the “Create Story” button to submit the story.



- After creating a story user will be directed to the related story's detail page.

- On the story detail page if the author of the story is the logged in user, the user can edit the story content via clicking the “Edit” button on the bottom side of the story content.

**Ice Cream at the Beach**

In the coastal town of Zonguldak, Turkey, there existed a cherished childhood tradition that brought joy and delight to young hearts—ice cream moments at the beach. As the warm summer sun caressed the sandy shores, children would eagerly flock to the ice cream vendors dotted along the promenade. With a twinkle in their eyes, they would select their favorite flavors—rich chocolate, velvety vanilla, or the vibrant hues of fruity delights. The tantalizing aroma of freshly made waffle cones mingled with the salty sea breeze, creating a delectable sensory symphony. Giggles filled the air as children skipped along the shoreline, their hands adorned with sticky remnants of ice cream indulgence. They would build sandcastles, chase seagulls, and splash in the gentle waves, their laughter blending harmoniously with the rhythmic lapping of the sea. Parents and grandparents would watch with fondness as their little ones reveled in the simple pleasures of life. They shared stories of their own childhood ice cream adventures, passing down cherished memories from generation to generation. As the day waned and the sun began its descent, the children would gather one last time at the water's edge. They would bid farewell to the beach, their sandy feet sinking into the cool wet sand, and savor the final licks of their melting ice cream cones. These moments etched themselves into the tapestry of their lives, forever treasured. The ice cream times at the beach in Zonguldak Turkey became a symbol of carefree days, laughter, and the timeless joy of childhood. And as the years passed, the memories of those sweet summer days would always bring a smile to their faces, a reminder of the pure and unadulterated happiness that resides in the simplest of moments.

EDIT

**Story Time**

Year: 1999

**Season**

Summer

**Author**

cano14

**Creation Date**

20.05.2023

**Tags**

IceCream Beach

**Comments**

- After clicking the “Edit” button there will open a pop up page and after making necessary changes users can click the save button to save the changes.

In a twinkle in their eyes, they would select their favorite flavors—rich chocolate, velvety vanilla, or the vibrant hues of fruity delights. The tantalizing aroma of freshly made waffle cones mingled with the salty sea breeze, creating a delectable sensory symphony. Giggles filled the air as children skipped along the shoreline, their hands adorned with sticky remnants of ice cream indulgence. They would build sandcastles, chase seagulls, and splash in the gentle waves, their laughter blending harmoniously with the rhythmic lapping of the sea. Parents and grandparents would watch with fondness as their little ones reveled in the simple pleasures of life. They shared stories of their own childhood ice cream adventures, passing down cherished memories from generation to generation. As the day waned and the sun began its descent, the children would gather one last time at the water's edge. They would bid farewell to the beach, their sandy feet sinking into the cool wet sand, and savor the final licks of their melting ice cream cones. These moments etched themselves into the tapestry of their lives, forever treasured. The ice cream times at the beach in Zonguldak Turkey became a symbol of carefree days, laughter, and the timeless joy of childhood. And as the years passed, the memories of those sweet summer days would always bring a smile to their faces, a reminder of the pure and unadulterated happiness that resides in the simplest of moments.

SAVE

**Story Time**

Year: 1999

**Season**

Summer

**Author**

cano14

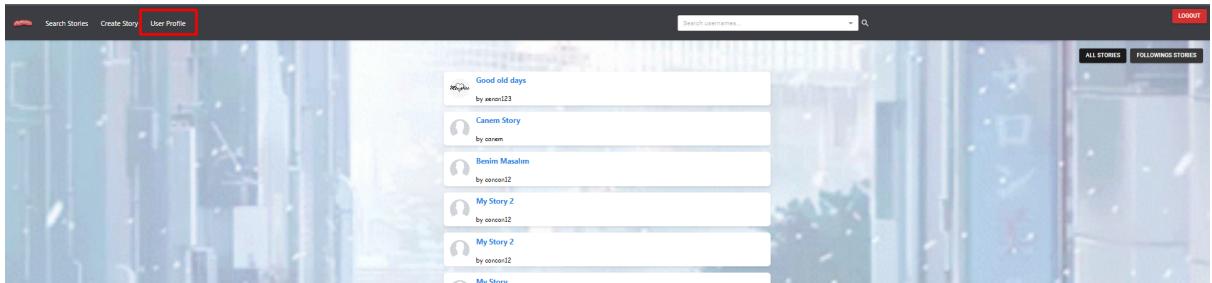
**Creation Date**

20.05.2023

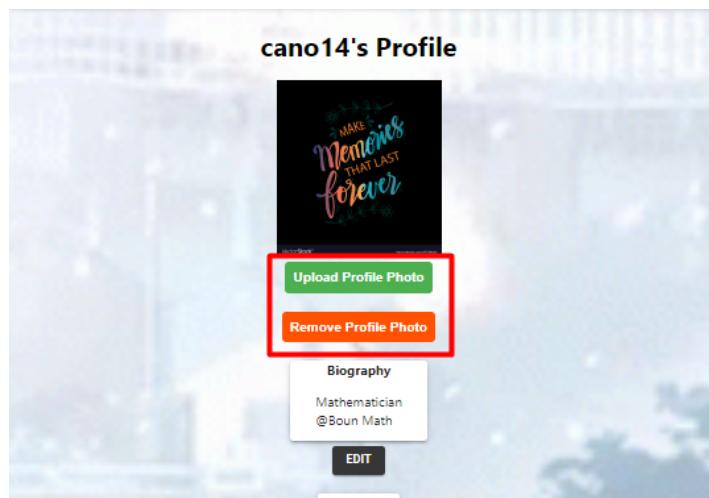
**Tags**

IceCream Beach

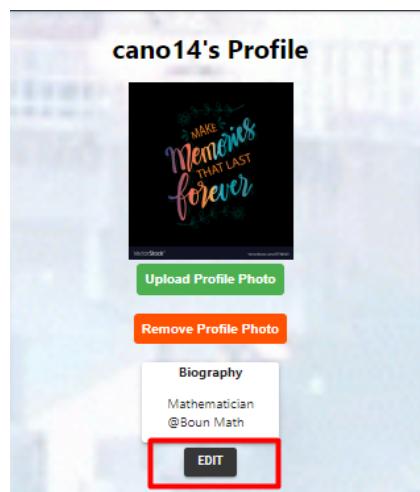
- When the user clicks “User Profile” on the upper left side, the user will be directed to own profile page.



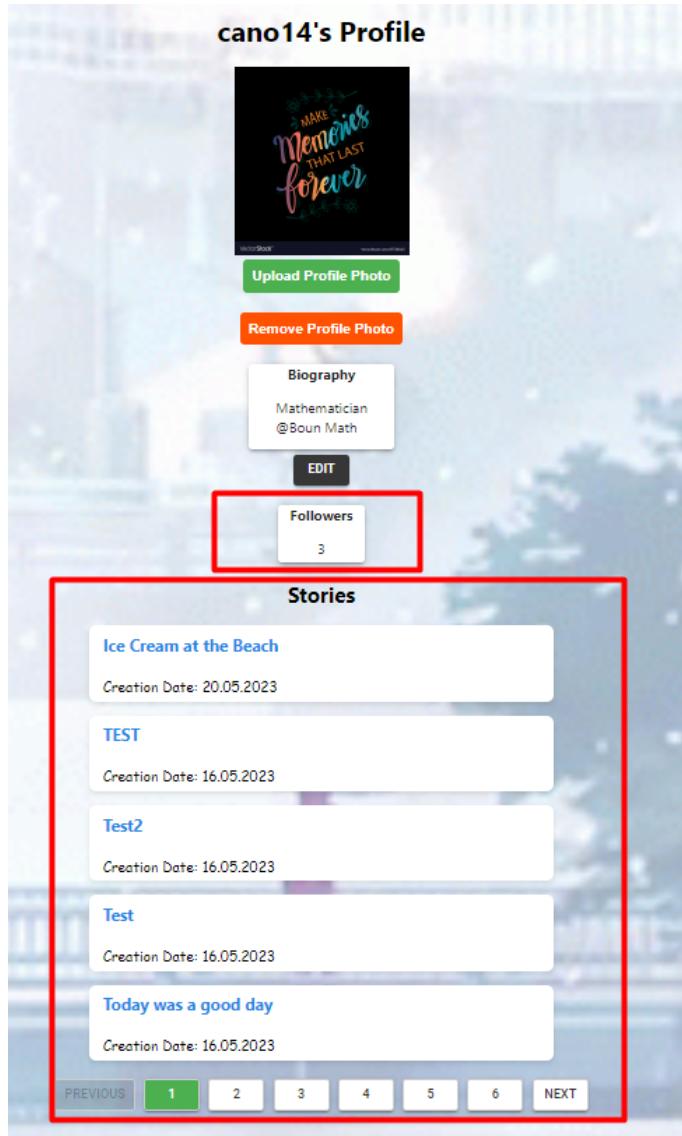
- User can upload a profile photo via “Upload Profile Photo” or delete the uploaded profile photo via “Remove Profile Photo”



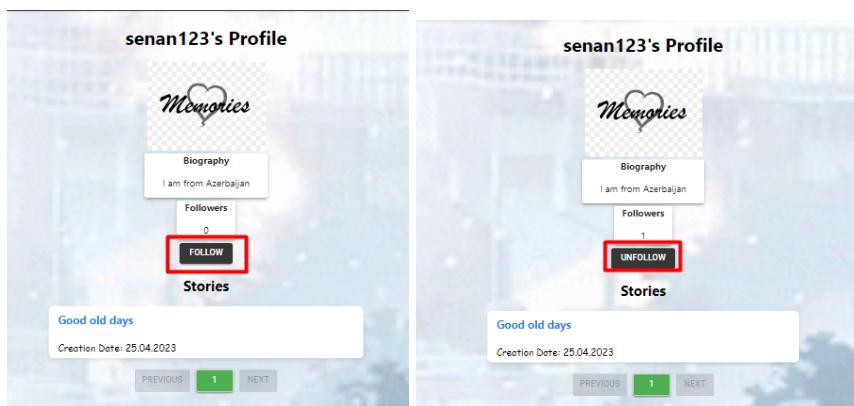
- Users can edit their own biography via the “Edit” button below the Biography detail.



- Also users can see their follower count and stories they created on the profile page.



- If a user visits another user's profile page there will be an available "follow" or "unfollow" button to follow or unfollow that user. If the user does not already following the user the button will be seen as "Follow". If the user is already following that user the button will be seen as "unfollow".



- Users can search other users via the upper right side on every page. When a user enters a value to the search box it offers existing users that are matched with given text. After entering the whole search text the user needs to click the “Magnifying Glass” button.



- After the search usernames will be listed in the new page. By clicking usernames users can visit those user's profile pages.

**Search Results**

cano12345  
cano123  
cano1234

- Users also can search for stories. To search stories users need to click “Search Story” Button on the left upper side.



- Users can search stories by different values. Users need to enter at least 1 value to search a story. In the search page users can enter title value, author value, tag value, a type of date value and location value.

**Story Search**

Search by Title  
Search by Author  
Search by Tag  
Date Type  
Location

Radius Difference in KM

SEARCH STORY

- If the search value is title value, then the system searches whether the entered title value has a contained match in all stories' titles.
- If the search value is author value, then the system searches whether the entered author value has a contained match in all stories' authors.
- If the search value is tag value, then the system searches whether the entered tag value has a contained match in all stories' tags.
- There are 4 types of time information search like creating a story. Those types are "Year", "Interval Year", "Normal Date", "Interval Date".
- If the user selects "Year" as a search time type. Users can enter a year and season. The search will return stories that match exactly with that year and season.

The screenshot shows a search interface with a dropdown menu for 'Date Type'. The 'Year' option is selected and highlighted with a red box. Other options in the list are 'Interval Year', 'Normal Date', and 'Interval Date'. To the right of the dropdown, there are fields for 'Year' and 'Season'. Below these are 'Location' and 'Radius Difference in KM' fields. At the bottom, there are buttons for 'Harita' and 'Uydu'.

- If the user selects "Interval Year" as a search time type. The user can enter a start year and end year season. The search will return stories that have a start year bigger than or equal to the given start year and end year less than or equal to the given end year and exact match for the season part.

The screenshot shows a search interface with a dropdown menu for 'Date Type'. The 'Interval Year' option is selected and highlighted with a red box. Other options in the list are 'Year', 'Normal Date', and 'Interval Date'. To the right, there are fields for 'Start Year' and 'End Year'. Below these are 'Location' and 'Radius Difference in KM' fields. At the bottom, there are buttons for 'Harita' and 'Uydu'.

- If the user selects "Normal Date" then the system will give 2 input fields. One of the fields is date picker field and the other field is to enter date differences. According to the selected date and given date difference the system returns results that have normal date value inside the range between given date minus date difference and plus date difference.

The screenshot shows a search interface with a dropdown menu for 'Date Type'. The 'Normal Date' option is selected and highlighted with a red box. Other options in the list are 'Year', 'Interval Year', and 'Interval Date'. To the right, there is a 'Date Time' field containing 'gg-aa-yyyy' and a 'Date Difference (days)' field containing '2'.

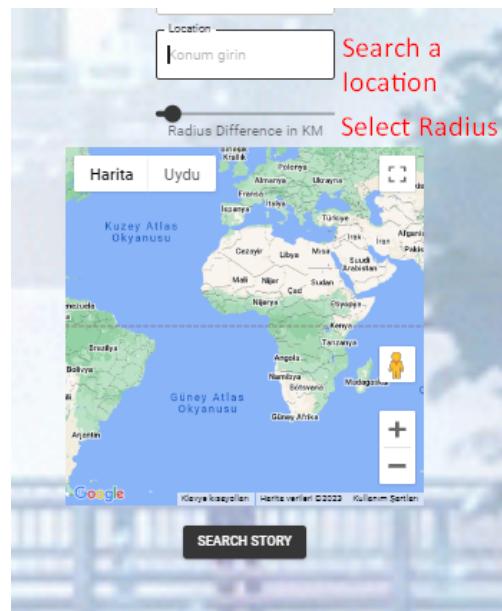
- If the user selects “Interval Date” then the system will give 2 input fields. Two of the fields are start and end date pickers fields According to the selected start and end the system returns results that stories has greater than or equal to the given start date and less than or equal to the given end dates.

The left screenshot shows a dropdown menu titled "Select a date type" with options: Year, Interval Year, Normal Date, and Interval Date. The "Interval Date" option is highlighted with a red box. The right screenshot shows a form with a "Date Type" dropdown set to "Interval Date". Below it are two date input fields labeled "Start Date Time" and "End Date Time", each with a "gg.aa.yyyy" placeholder and a calendar icon.

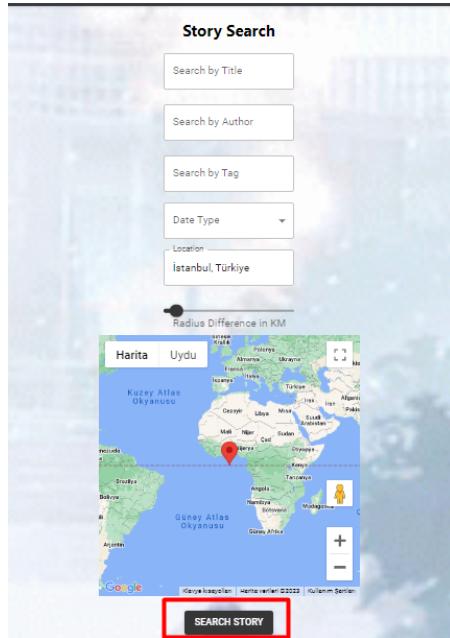
- If the user selects “Decade” then the system will show a dropdown menu to select a decade for the user.

The left screenshot shows a dropdown menu titled "Select a date type" with options: Year, Interval Year, Normal Date, Interval Date, and Decade. The "Decade" option is highlighted. The right screenshot shows a dropdown menu titled "Select a decade" listing decades: 1900s, 1910s, 1920s, 1930s, 1940s, 1950s, 1960s, 1970s, 1980s, 1990s, 2000s, 2010s, and 2020s.

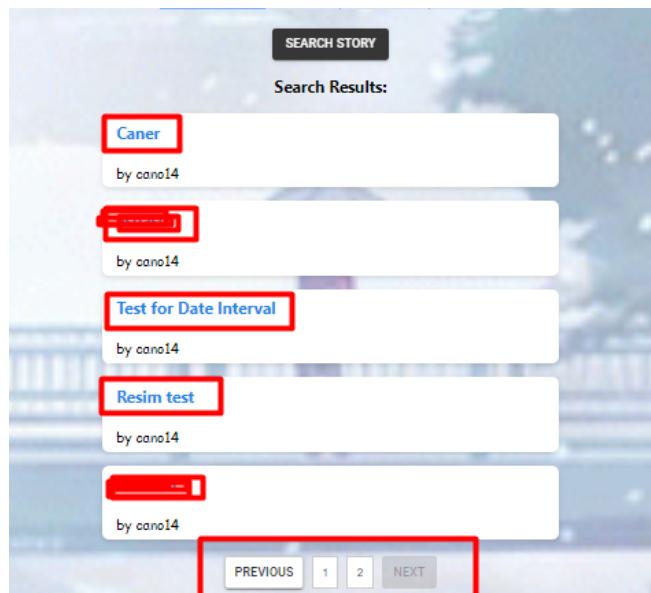
- Also users can search according to a location and around a location with the specified radius by a user. Users can enter a location value to search box or select from map and decide the radius by the slider.



- After entering all the wanted fields to search a story, users can click to the “Search Story” button to search them.



- Then the stories that match with the search criterias will be displayed on the bottom side of the search page and users can click the story title. If the user clicks the story title the user will be directed to the story page.
- On search results there is pagination and every page shows 10 stories at maximum. So to see other stories the user needs to go next pages.



- If the user wants to logout from the website. Users can click the "Logout" button on the upper right side.



## 4. Unit & User Tests

## 4.1. Unit Tests & Results

#### 4.1.1. Model Tests

- User Creation Test
  - User Following Test
  - Location Creation Test
  - Story Creation Test
  - Story Creation with Invalid Value for Date Test
  - Comment Creation Test

All tests are passed successfully:

```
System check identified 1 issue (0 silenced).
[None, 1996, None]
...[None, None, datetime.datetime(2023, 5, 15, 0, 0), None]
C:\Users\caner\OneDrive\Belgeler\GitHub\SWE573_SPRING_2023\venv\lib\site-packages\django\db\models\fields\__init__.py:1564: RuntimeWarning: DateTimeField Story.date received a naive datetime (2023-05-15 00:00:00) while time zone support is active.
    warnings.warn(
...[None, None, datetime.datetime(2023, 5, 15, 0, 0), None]
...
-----
Ran 6 tests in 1.485s

OK
Destroying test database for alias 'default'...
```

## 4.1.2. API Tests

- User Registration Test
  - User Login Test
  - User Login with Invalid Credentials Test
  - Create Story Test
  - Update Story Content Test
  - Create Comment Test
  - Logout Test

All tests are passed successfully:

```
{'comment_author': 1, 'story': 1, 'text': 'This is a test comment.'}
{'refreshToken': 'eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJc2VyIjoiMjAyMDEwMDAxMS4xNjEwMTIwMCIsImF1ZGUiOiJsb2dpbiIsInRpdGxlIjoiZWxvY2FyIiwidXNlcm5hbWUiOiJsb2dpbiJ9.yJ1c2Vy2lkIjoyLCJleHAiOjE2ODUxOTc2ODMsImhlhdCI6MTY4NDU5Mjg4M30.xdsuC8iQ_u-Jt4Lx4Vd
Zu-0HppXRouuvLhLcycGA8'}
b'{"title": "Test Story", "content": "<p>This is a test story.</p>", "story_tags": "test, story", "location_ids": [{"name": "location1", "latitude": 12.3456789, "longitude": 98.7654321}, {"name": "location2", "latitude": 12.3456789, "longitude": 98.7654321}], "date_type": "year", "season_name": "Spring", "year": 1996}'
{'title': 'Test Story', 'content': '<p>This is a test story.</p>', 'story_tags': 'test, story', 'location_ids': [{'name': 'location1', 'latitude': 12.3456789, 'longitude': 98.7654321}, {'name': 'location2', 'latitude': 12.3456789, 'longitude': 98.7654321}], 'date_type': 'year', 'season_name': 'Spring', 'year': 1996}
[None, 1996, None, None]
[None, None, datetime.datetime(2023, 5, 15, 0, 0), None]
C:\Users\caner\OneDrive\Belgeler\GitHub\SWE573_SPRING_2023\venv\lib\site-packages\django\db\models\fields\_init_.py:1564: RuntimeWarning: DateTimeField Story.date received a naive datetime (2023-05-15 00:00:00) while time zone support is active.
    warnings.warn(
[None, None, datetime.datetime(2023, 5, 15, 0, 0, tzinfo=datetime.timezone.utc), None]
...
-----
Ran 7 tests in 2.729s

OK
Destroying test database for alias 'default'...
```

## 4.2. User Tests & Results

Register	Pass
Login	Pass
Clicking "App Logo" on left side will direct user to homepage if logged in	Pass
See all stories at homepage	Pass
See followings stories at homepage	Pass
Change stories pages at homepage with pagination below	Pass
Clicking "Create Story" button will direct to story creation page	Pass
Create story with time as year without season	Pass
Create story with time as interval year without season	Pass
Create story with time as year with season	Pass
Create story with time as interval year with season	Pass
Create story with time as normal date without hours and minutes	Pass
Create story with time as normal date with hours and minutes	Pass
Create story with time as interval date	Pass
Create story with more than one location	Pass
Edit story content	Pass
Clicking "User Profile" will direct user to own profile page	Pass
Add profile photo by clicking "Upload Profile Photo"	Pass
Remove profile photo by clicking "Remove Profile Photo"	Pass
Change biography by clicking "Edit" under biography part	Pass
Click a story title on homepage and direct to story details	Pass
Click a story author profile photo on homepage and direct to author's profile page	Pass
Comment to story	Pass
On story comments clicking username or user's profile photo will direct to that user's profile page	Pass
Like a story	Pass
Unlike a story	Pass
Search a username	Pass
On search username results clicking username will direct to user's profile page	Pass
Follow a user on the user's profile page if the user is not following that user	Pass
Unfollow a user on the user's profile page if the user is following that user	Pass
Clicking a title of story on the user's profile page will direct to that story's details page	Pass
Clicking "Search Stories" button will direct to search story page	Pass
Search story with title	Pass
Search story with author	Pass

Search story with tag	Pass
Search story with time as year without season	Pass
Search story with time as interval year without season	Pass
Search story with time as year with season	Pass
Search story with time as interval year with season	Pass
Search story with time as normal date with given date difference	Pass
Search story with time as interval date	Pass
Search story with selecting a location from autocomplete box	Pass
Search story with selecting a location by clicking map	Pass
Search story with selecting a location and defining a radius	Pass
On search results clicking title of the story will direct to story details page	Pass
Logout	Pass

## 5. Project Demo

As I presented my latest version of the project to the Professor on 25.05.2023 I will not add a project demo.

After the presentation I added decade as a selectable time value and search is extended so that if a user enters a year it will show all date types if the year matches.

## 6. References

Material UI: <https://mui.com/>

Django Restframework Docs: <https://www.djangoproject.org/>

Docker Docs: <https://docs.docker.com/>