Name: Hasan Erdem Bilgin

Course: Software Development Practice (SWE 573)

Date: 30 May 2022

Project Name: Learn Together (Co-Learning Platform)

Git Repository: https://github.com/erdembilgin/SWE-573-Project

Git Tag Version: v0.9

Deployment URI: http://54.163.54.195/

Test User Information:

- Mail: erdem.bilgin@boun.edu.tr
- Password: Proje123

HONOR CODE

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

- I am a student in the Software Engineering MS program at Bogazici University and am registered for Swe573 course during the 2022 Spring 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.

Hasan Erdem Bilgin

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Project Overview

Learn Together is a website which is developed for people to create learning spaces for specific topics and generate relevant content under these learning spaces. Thereby, all the users, who are interested in this space topic, can read and benefit from this content. Moreover, they can also interact with the contents by commenting or liking/disliking. People will need to create profiles to create spaces and contents. Only logged in users will be able to create contents for the spaces that have joined.

Software Requirement Specification

A) Sign Up and Login Flow

1. Users shall be able to sign up with a nickname, an e-mail address, a password, and an avatar.
2. Users shall be able to login by using their e-mail addresses and passwords.
3. Users shall request their current password to their e-mail addresses if they forgot their password.
4. Users shall be able to logout from the system.
5. System shall check for the uniqueness of the e-mails and nicknames and shall not allow users signing up with an existing e-mail address or nickname.

B) Profile Page

6. Users shall have a profile page.
7. Users shall be able to view other users' profile pages.
8. Profile pages shall contain username, avatar, email, password, bio, interested areas, reputation, joined spaces and taken quizzes.
9. Users shall be able to edit their username, bio, avatar, email and password.

C) Spaces and Contents

10. Users shall be able to create spaces for a desired subject.

11. Users shall determine space name, space description and subject tags related to that area while creating a new space.

12. Users shall be able to join a space.

13. Users shall be able to create posts inside the spaces they have joined or created.

14. Users shall be able to comment for a post, if they have joined to the space where this post is shared.

15. Users shall be able to like or dislike a post and give reputation star to the content creator user if they have joined to the space where this post is shared.

16. Users shall be able to create text-based posts, posts with videos and posts with images.

17. Users shall be able to create quizzes with multiple choice answers.

18. Users shall be able to take quizzes that are created by other users.

19. Users shall select what type of post they want to create from a dropdown list while creating a new post.

20. Text based posts shall have a title and a description text.

21. Video posts shall have a title, a description text, and a video.

22. Image posts shall have a title, a description text, and an image.

23. Quizzes shall have questions with multiple-choice answers.

24. While creating a post, users shall select subject tags that are related to this post.

25. Users shall be able to add prerequisite subjects and subject related tags to their posts.

26. Users shall be able to edit any posts.

27. Posts shall have an edit history and all users shall be able to view the edit history.

28. Only post owner users and admin users shall be able to delete a post.

29. Admin users shall be able to delete a space, a post, or a comment.

30. Users shall be able to position a content as a following of another content or ahead of another content.
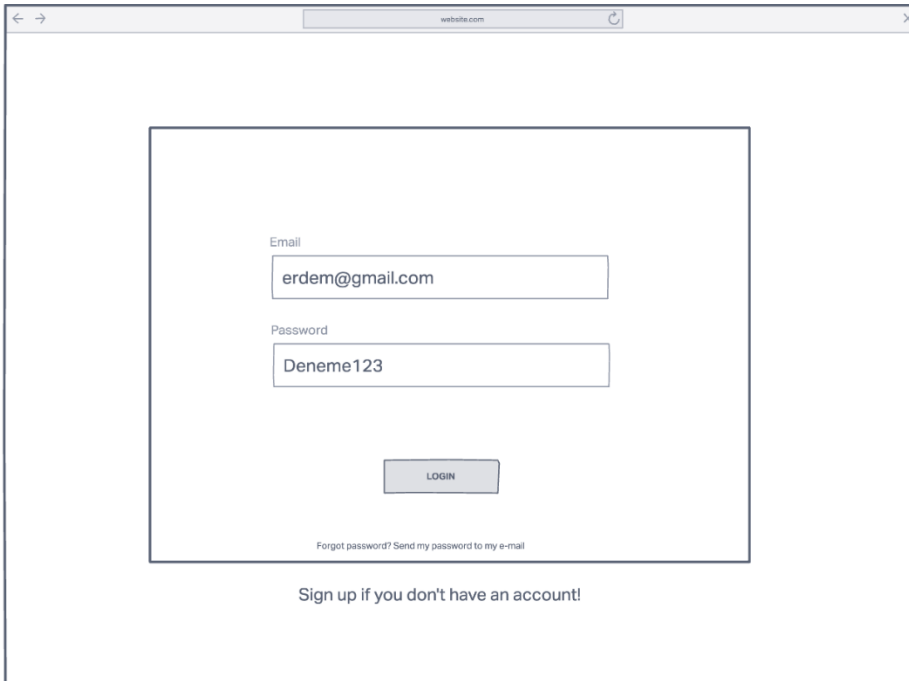
4. Discussion Rooms

31. Users shall be able to join discussion rooms.

32. Each discussion room shall have a title and a description.

33. Users shall be able to talk and write on a whiteboard while being in a discussion room.

34. Users shall be able to delete only their own contents.

35. Users shall be able to leave the room.

5. Quizzes Page

36. Users shall be able to create quizzes.

37. Users shall be able to view the results of their taken quizzes.

38. Users shall be able to view how many other users completed the quizzes that are created by them.

39. Users shall be able to search for a quiz by the name of the quiz.

40. Users shall be able to attempt a quiz.
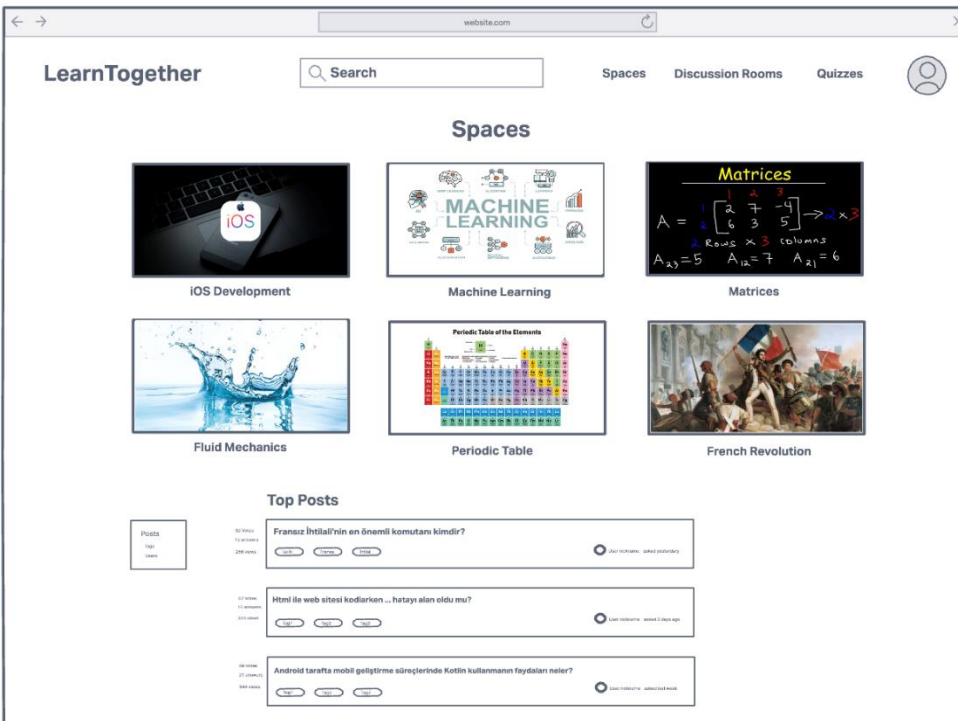
Design (Software & Mockups) – UML Diagrams and Images

Login Page

Homepage

Profile Page

Space Page

New Content Page
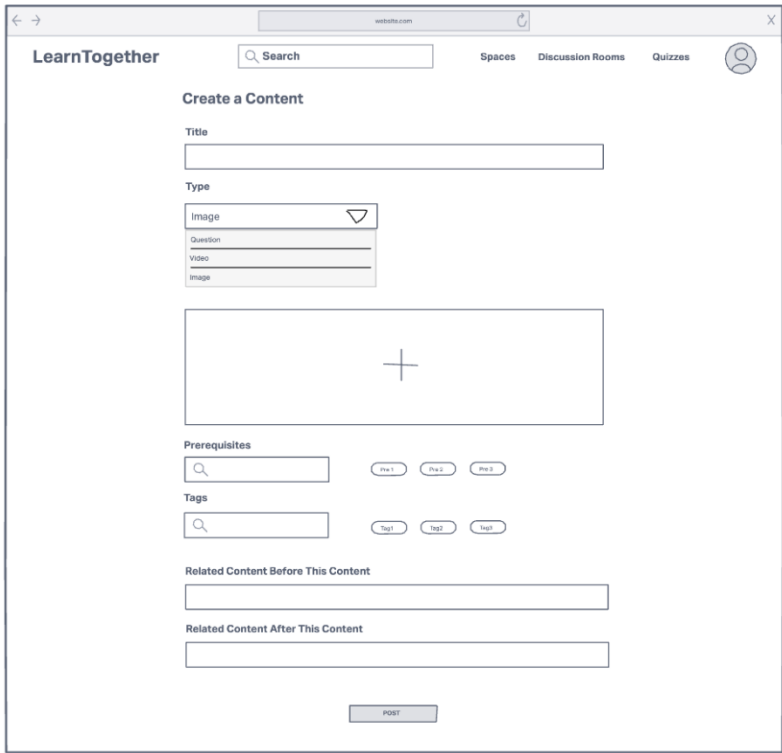
Content Detail Page

Comment Detail Page

LearnTogether   Search   Spaces   Discussion Rooms   Quizzes

Yorumlar

İÇERİĞE GERİ DÖN

Sırala
- ☐ En Yeni
- ☐ En Faydalı

Videonun 3. dk'sında anlatılan konsepti tam anlamadım bu konuda yardımcı olabilecek var mı?

ahmet123

Videonun 3. dk'sında anlatılan konsepti tam anlamadım bu konuda yardımcı olabilecek var mı?

Yanıtla

ayşemira

Anladığım kadarıyla hoca orada grafiğin altında kalan alan ile integral hesabı arasındaki bağlantıyı açıklıyor.

Yanıtla

süleyman07

Evet aslında burada kanıtlamaya çalıştığı şey fonksiyon grafiklerinin altındaki alan ile integral arasındaki bağ.

Yanıtla

fatmacan

Hocanın bu konudan sonra anlattığı denklem hesabı ile ilgili buradaki bilgi çelişiyor gibi?

Yanıtla

fikuzunda

Yorum Yaz

Ben bu videonun sonunda anlatılan problem çözümü ile ilgili şöyle düşünüyorum .....
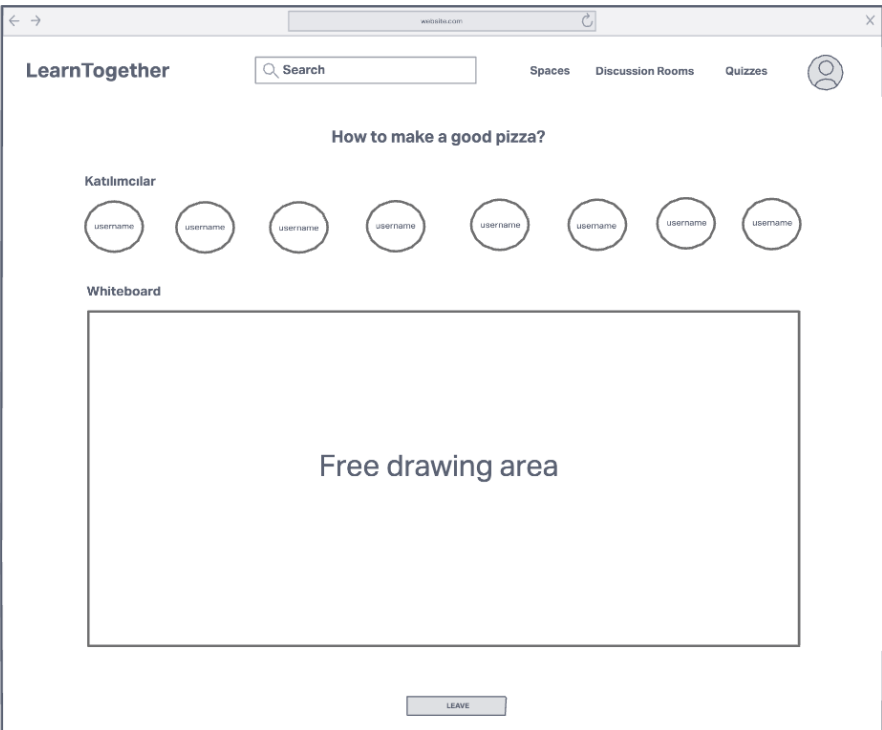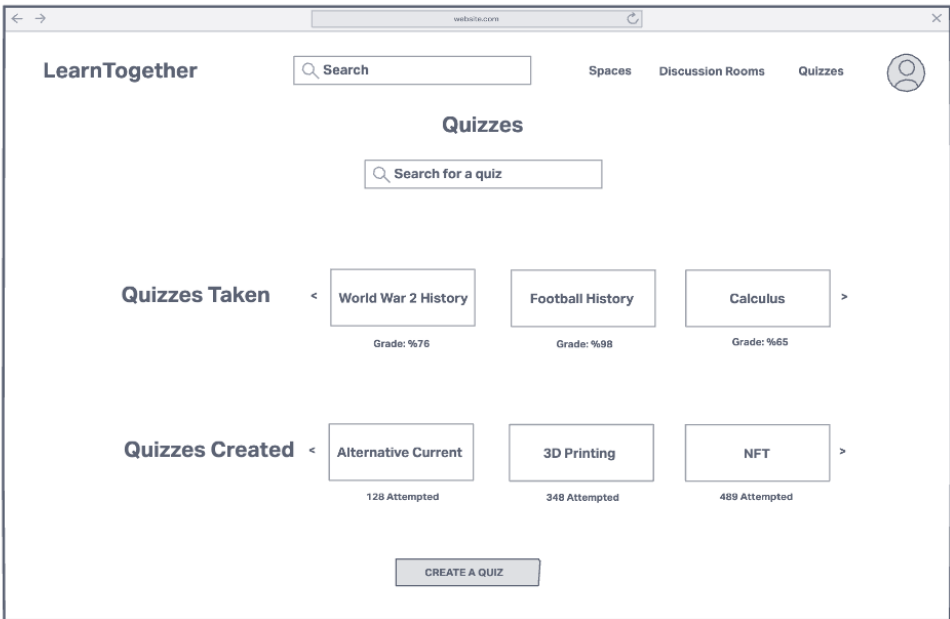
10

Discussion Room

LearnTogether   Search   Spaces   Discussion Rooms   Quizzes

How to make a good pizza?

Katılımcılar

(username) (username) (username) (username) (username) (username) (username) (username)

Whiteboard

Free drawing area

LEAVE

Quizzes Homepage

LearnTogether   Search   Spaces   Discussion Rooms   Quizzes

Quizzes

Search for a quiz

Quizzes Taken   < | World War 2 History | | Football History | | Calculus | >

     Grade: %76   Grade: %98   Grade: %65

Quizzes Created   < | Alternative Current | | 3D Printing | | NFT | >

     128 Attempted   348 Attempted   489 Attempted

CREATE A QUIZ

Quiz Detail Page

LearnTogether   🔍 Search   Spaces   Discussion Rooms   Quizzes

<   All Quizzes

Football History Quiz

1. Who is the first professional player of the world?

- ○ Pele
- ○ Romario
- ○ Maradona
- ○ Platini

2. Who is the most scorer football player of all time?

- ○ Pele
- ○ Romario
- ○ Maradona
- ○ Platini

ATTEMPT

DONE

Quiz Results Page

LearnTogether   🔍 Search   Spaces   Discussion Rooms   Quizzes

<   All Quizzes

Football History Quiz

You answered 11 of 20 questions correctly!

RETAKE

New Quiz Page

LearnTogether   🔍 Search   Spaces   Discussion Rooms   Quizzes

< All Quizzes

Title

Football History Quiz

Question 1

Who is the most scorer football player of all time?

Answers

◉ Pele   Correct

◯ Maradona

◯ Write an answer

◯ Write an answer

ADD QUESTION

CREATE

Use Case Diagram
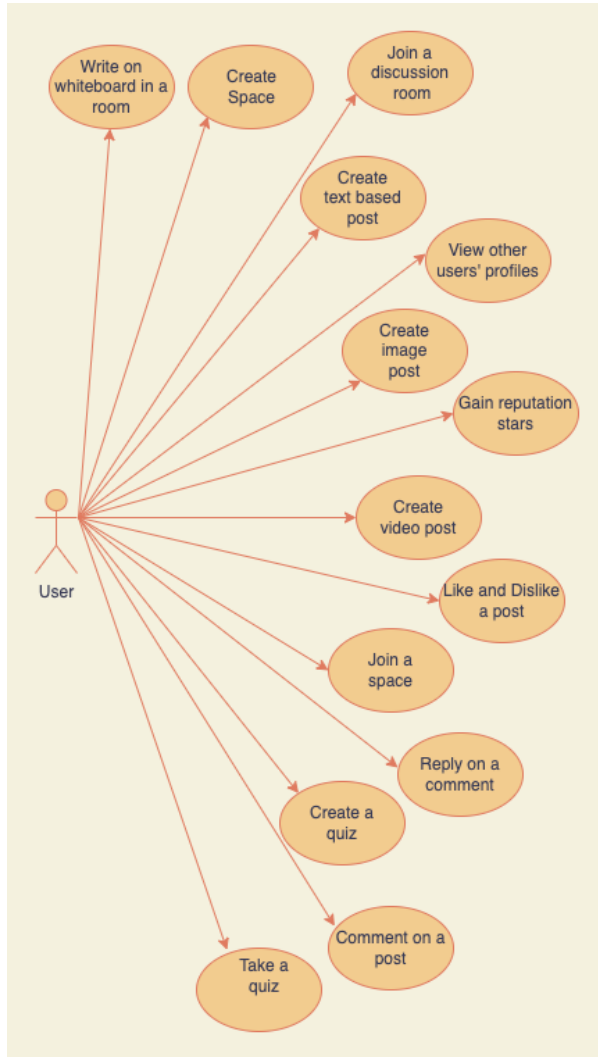
Status of Project

A) Sign Up and Login Flow

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✓ Users shall be able to login by using their e-mail addresses and passwords.
✓ Users shall request their current password to their e-mail addresses if they forgot their password. **(Not completed)**
✓ Users shall be able to logout from the system.

✓ System shall check for the uniqueness of the e-mails and nicknames and shall not allow users signing up with an existing e-mail address or nickname.

B) Profile Page

✓ Users shall have a profile page.
✓ Users shall be able to view other users' profile pages. **(Not completed)**
✓ Profile pages shall contain username, avatar, email, password, bio, interested areas, reputation, joined spaces and taken quizzes. **(Partially completed)**
✓ Users shall be able to edit their username, bio, avatar, email and password.

C) Spaces and Contents

✓ Users shall be able to create spaces for a desired subject.
✓ Users shall determine space name, space description and subject tags related to that area while creating a new space.
✓ Users shall be able to join a space.
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✓ Users shall be able to like or dislike a post and give reputation star to the content creator user if they have joined to the space where this post is shared. **(Partially completed)**
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✓ Users shall be able to take quizzes that are created by other users. **(Not completed)**
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✓ Users shall be able to edit any posts. **(Not completed)**
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✓ Admin users shall be able to delete a space, a post, or a comment.
✓ Users shall be able to position a content as a following of another content or ahead of another content. **(Not completed)**

D) Discussion Rooms

✓ Users shall be able to join discussion rooms. **(Not completed)**
✓ Each discussion room shall have a title and a description. **(Not completed)**
✓ Users shall be able to talk and write on a whiteboard while being in a discussion room. **(Not completed)**
✓ Users shall be able to delete only their own contents. **(Not completed)**
✓ Users shall be able to leave the room. **(Not completed)**

E) Quizzes Page

✓ Users shall be able to create quizzes. **(Not completed)**
✓ Users shall be able to view the results of their taken quizzes. **(Not completed)**
✓ Users shall be able to view how many other users completed the quizzes that are created by them. **(Not completed)**
✓ Users shall be able to search for a quiz by the name of the quiz. **(Not completed)**
✓ Users shall be able to attempt a quiz. **(Not completed)**

Status of Deployment

The project is dockerized, and it is deployed via AWS system. Website can be reached from http://54.163.54.195/ address.

System Manual

System requirements are listed below:

- Python
- Virtual environment
- The packages that are listed in the requirements.txt
- Docker
- Docker-compose
- Postgre database

Installation instructions:

1. Clone repository: git clone https://github.com/erdembilgin/SWE-573-Project.git
2. Create virtual environment: virtualenv venv

3. Activate virtual environment: source venv/bin/activate
4. Install dependencies: pip install -r requirements.txt
5. Migrate DB: python manage.py migrate
6. Runserver: python manage.py runserver
7. Navigate to url: localhost:8000

User Manual

- Users can access to the website from this link http://54.163.54.195/
- Then, each user needs to create a profile with an avatar, email, nickname, and password.
- After creating a profile, user needs to enter this email and password credentials to login to the website.
- When users login to the website, they can change their password.
- After logging in, users can create spaces.
- Users need to join to a space to create a content under this specific space.
- When users joined to a space, they can create text-based, image or video contents.
- Other users that joined to this specific space can comment or like-dislike this content.

Unit & User Tests

Unit Test Example

```python
1   from django.test import TestCase
2
3   # Create your tests here.
4
5
6   from django.test import TestCase, Client
7   from django.urls import reverse
8   import json
9   from accounts.models import User
10
11
12  class TestViews(TestCase):
13      def setUp(self):
14          print("set up is gonna execute")
15          self.client=Client()
16          self.user = User.objects.create_user(email='testuser@mail.com',password='123456')
17          self.user.set_password("123456")
18          self.user.save()
19
20      def test_spaces_homepage_GET(self):
21          self.client.login(email='testuser@mail.com', password='123456')
22          response=self.client.get(reverse('homepage'))
23          self.assertEquals(response.status_code, 200)
24          self.assertTemplateUsed(response,"spaces/homepage.html")
```

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User Tests

- Signup actions tested
- Login/logout actions tested
- Changing password tested
- Creating spaces/contents tested
- Deleting contents tested
- Commenting on posts tested
- Liking/disliking posts tested