

**SWE 573 2022 SPRING**

**FINAL REPORT**

**KARDELEN OĞLAKCIOĞLU- 2020719216**

**31/05/202**

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## PROJECT SUMMARY

**Project Name:** Helloworld

**Project Course:** SWE573 Software Development Practice

**Project Owner:** Kardelen Oğlakcioğlu - 2020719216

**Project Deadline:** 31/05/2022

**Git Repository:** <https://github.com/koglak/SWE573>

**Git Tag:** v1.0

**Deployment URL:** ec2-44-202-83-160.compute-1.amazonaws.com

### Project Versions

- Python: 3.10.2
- Django: 4.0.2
- PostgreSQL: 14.2

### Test Users

1. **Username:** [athena](#)  
1. **Password:** 123kar456
2. **Username:** [hiera](#)  
2. **Password:** 123kar456
3. **Username:** [helios](#)  
3. **Password:** 123kar456

### Declaration

Related to the submission of all the project deliverables for the Swe573 2022 Spring semester project reported in this report, I, Kardelen Oğlakcioğlu 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.

Kardelen Oğlakcioğlu

## PROJECT OVERVIEW

Helloworld is an online platform where users can create new spaces to learn, discuss and develop each other. Within those spaces, users can create textual content to share their knowledge, quiz to test each other and competition by case-study feature to provide interactive environment. When user submitted a file to created case-study, other users can download the file to rate and grade the study. It allows to emerge collaborative environment where people can interact each other and criticize their studies. Space owner can add collaborative members to space who can modify space content as space owner can do. Other users can see all spaces, search them by either a keyword or tags. Moreover, if user enrolls to a space, the space is listed learn page of the user. Beside all these features, Helloworld platform presents Question & Answer application in it where users can freely ask questions and take advantages of knowledge of the other members. Helloworld website is creative, interactive, and collaborative learning environment for all users.

## PROJECT REQUIREMENTS

### Login/Register

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/11>

**Milestone Target Date:** 12.04.2022 / **Closed Date:** 03.04.2022

**Milestone#1:** <https://github.com/koglak/SWE573/milestone/4?closed=1>

1. User shall register page by e-mail address and password.
2. When user registered, the software shall route user to home page.
3. When user logged in, the software shall route user to home page.
4. If user not logged in, user shall only view home page with created spaces.
5. If user not logged in, when user clicked any link, the software shall route user to login page.
6. When user registered to website, the software shall add default bio and profile picture.

### Myspace Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/14>

**Milestone Target Date:** 12.04.2022 / **Closed Date:** 09.04.2022

**Milestone#1:** <https://github.com/koglak/SWE573/milestone/4?closed=1>

7. User shall create new space.
8. A new course shall contain space title, space description, space image and tags.
9. When user created a new space, the new space shall be listed at myspace page.
10. Profile section shall contain a profile picture, username, a bio.
11. User shall add other users as collaborative member to space.
12. Space title shall route user to the space page.
13. Tags shall route the tag page and display spaces which have the tag.
14. Collaborative members shall be optional.
15. Owner of space shall delete space.
16. Owner of space and collaborative members shall edit space.
17. Other user profile shall be visible for current user.
18. When current user clicks other username, other user profile shall be displayed.

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/16>

**Milestone Target Date:** 26.04.2022 / **Closed Date:** 21.04.2022

**Milestone#3:** <https://github.com/koglak/SWE573/milestone/6?closed=1>

19. Users shall rate space.
20. Space rating shall be displayed in space block for each space at myspace page.
21. Content quantity shall be displayed in space block for each space at myspace page.
22. Quiz quantity shall be displayed in space block for each space at myspace page.
23. Case-study quantity shall be displayed in space block for each space at myspace page.
24. Enrolled users to space shall be displayed in space block for each space at myspace page.
25. User shall search for a space by keyword.

## Question & Answer Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/12>

**Milestone Target Date:** 12.04.2022 / **Closed Date:** 09.04.2022

**Milestone#1:** <https://github.com/koglak/SWE573/milestone/4?closed=1>

26. User shall create question at question page.
27. User shall edit question at question detail page if user is owner of question.
28. User shall view list of all questions at question page.
29. User shall like/dislike questions at question page.
30. User shall view comment count for each question at question page.
31. User shall view question in detailed in another page.
32. User shall like/dislike a question at question detail page.
33. User shall answer the question at question detail page.
34. User shall delete question if user is owner of the question.
35. User shall assign label to his/her question.
36. Question block shall include question title, body, creator name, published date and labels.

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/13>

**Milestone Target Date:** 19.04.2022 / **Closed Date:** 14.04.2022

**Milestone#2:** <https://github.com/koglak/SWE573/milestone/5?closed=1>

37. User shall search a question by keyword at question page.
38. User shall like comments at question detail page.
39. When user clicked one of the labels, page should be routed to label details page.
40. The question shall be listed to which the label is assigned at labels detail page.
41. When user clicked a question at label detail page, the website shall route user to the question detail page.
42. User shall follow another user with follow button at question page.
43. When user clicked to username at question page, the website shall route user to user profile of the user.

## Home Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/25>

**Milestone Target Date:** 19.04.2022 / **Closed Date:** 16.04.2022

**Milestone#2:** <https://github.com/koglak/SWE573/milestone/5?closed=1>

- 44. User shall view recent courses on home page.3
- 45. User shall view the most used labels on home page.
- 46. User shall search courses by keywords on home page.

## Space Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/21>

**Milestone Target Date:** 19.04.2022 / **Closed Date:** 16.04.2022

**Milestone#2:** <https://github.com/koglak/SWE573/milestone/5?closed=1>

- 47. Owner or collaborative user shall create textual content
- 48. Owner or collaborative user shall edit content
- 49. All users shall view already published contents.
- 50. Owner or collaborative user shall create quiz.
- 51. When user took quiz and submitted, the software shall display score.
- 52. Score shall be displayed near quiz title.
- 53. Owner or collaborative user shall be able to create case-study with description.
- 54. All users shall submit documents to case-study.
- 55. When user shall submitted document to case-study, all users shall download the document.
- 56. Owner or collaborative user shall be able to edit textual content, quiz content and case-study content.
- 57. All users shall rate submitted case-studies.

## Profile Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/27>

**Milestone Target Date:** 26.04.2022 / **Closed Date:** 21.04.2022

**Milestone#3:** <https://github.com/koglak/SWE573/milestone/6?closed=1>

- 58. User shall profile picture and bio.
- 59. The software shall display follower quantity, question quantity and content quantity of user on profile block.
- 60. The software shall reward user by displaying an icon near the user's profile when over than 100 students enrolled to his/her space.
- 61. The system shall reward user by displaying an icon near the user's profile when has over than 10 spaces where average rating is higher than 4.

## Content Detail Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/24>

**Milestone Target Date:** 03.05.2022 / **Closed Date:** 28.04.2022

**Milestone#4:** <https://github.com/koglak/SWE573/issues/30>

- 62. User shall enrol space
- 63. When current user enrolled a space, space shall be displayed at learn page.
- 64. User shall drop a space from learn page.
- 65. When user clicked an enrolled space button, the software shall route course to space page.

## Activity Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/30>

**Milestone Target Date:** 03.05.2022 / **Closed Date:** 24.05.2022

**Milestone#4:** <https://github.com/koglak/SWE573/issues/30>

66. User shall post an activity.
67. Activity block shall include title, description and date.
68. When user posted activity, the software shall display the activity on activity page to all users.
69. User shall search activity by keywords on activity page.

## Space Unique Activity Page

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/44>

**Milestone Target Date:** 17.05.2022 / **Closed Date:** 15.05.2022

**Milestone#6:** <https://github.com/koglak/SWE573/milestone/9?closed=1>

70. Each space shall have event feature.
71. User shall add new event
72. User shall edit event if user is owner of the event.
73. Event List Button shall be displayed at course detail and lecture detail page.
74. Events for the space shall be listed at event list page.
75. Users shall enrol to event.
76. Events shall be ordered according to date at event list page.

## Room Page

**Status:** Not Completed

77. User shall create a room in “room page”.
78. While user is creating a room in “room page”, user shall invite other users in his/her room.
79. When a room is created, attended users shall send message.

## Others

**Status:** Not Completed

80. Followers system should be implemented.
81. The software shall display progress of each space of the user.
82. User shall review his/her progress of space that the user enrolled.

## PROJECT STATUS

### 1. App Organization

5 apps have been created within project content.

- Activity: Includes only Activity page features.
- Blog: Includes Question & Answer and Home pages features.
- Quiz: Includes Quiz & Case-Study features.
- Register: Includes only Registration & Login.
- Userprofile: Includes Spaces, Content and Event Features.



## 2. Database

Database is selected as PostgreSQL.

## 3. Docker

Project is dockerized.

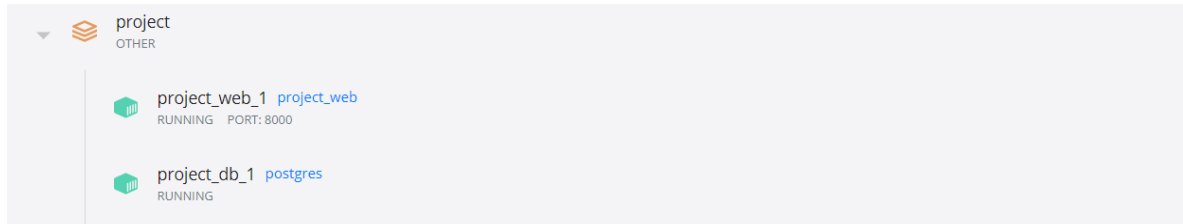


Figure 1 - Docker Status

## 4. Unit Testing

**Status:** Completed

**Associated Issue:** <https://github.com/koglak/SWE573/issues/28>

**Milestone Target Date:** 26.04.2022 / **Closed Date:** 17.05.2022

**Milestone#3:** <https://github.com/koglak/SWE573/milestone/6?closed=1>

Only userprofile app is tested as decision point. Created tests are listed below. All tests are functional.

- 3-unit tests for views
  - Test Course Deletion Function
  - Test New Course Creation Function
  - Test New Profile Creation Function
- 3-unit tests for urls
  - Test User Profile Url
  - Test Course Detail Url
  - Test Course Enrol Url
- 3-unit tests for models
  - Test Profile Model
  - Test Course Model
- 2-unit tests for forms
  - Test Lecture Creation Form with Data
  - Test Lecture Creation form with No Data

```
PS C:\Users\kogla\Documents\project> docker-compose run web python manage.py test
Starting project_db_1 ... done
Creating project_web_run ... done
Found 10 test(s).
Creating test database for alias 'default'...
System check identified no issues (0 silenced).
.....
-----
Ran 10 tests in 1.780s

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

Figure 2- Unit Test Result

## 5. Deployment

AWS EC2 Instance is used for deployment. AWS Elastic Container Registry is used to push project.

- **Container URI:** 575017793408.dkr.ecr.us-east-1.amazonaws.com/swe573
- **Instance URI:** http://ec2-44-202-83-160.compute-1.amazonaws.com/

## USER MANUAL

### Register Page

User can register page by filling username, email address and password. When user registered to page, system will route user to home page.

Figure 3- Registration Page

When user registered, default profile picture and biography are created for user. Myspace page is empty, because, user has not created any new space yet.

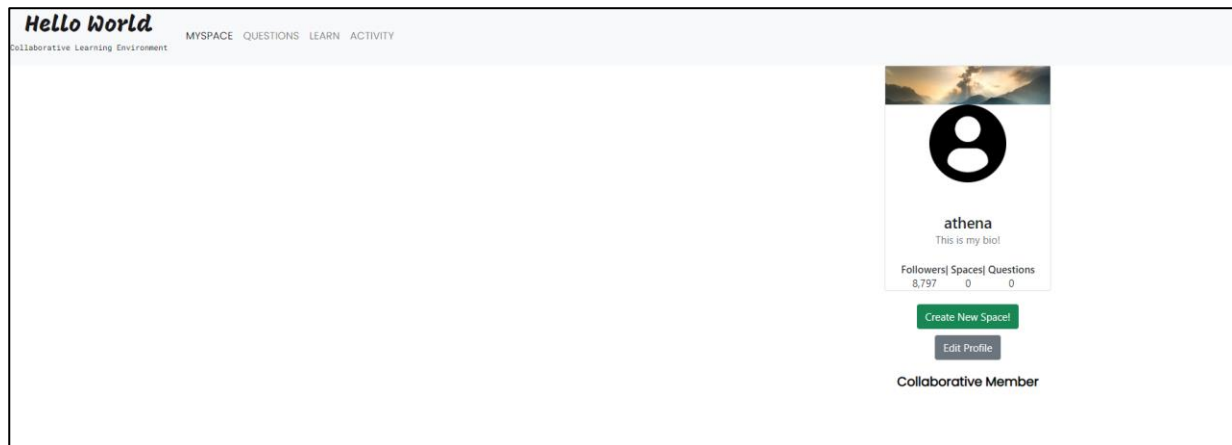


Figure 4- Myspace Page For New User

### Home Page

Home page displays created spaces. Each space block contains space owner, picture, title, short description, quantity of content, quiz, case-study, average rating, enrolled users, and tags. User can search a space by entering key words. Common tags are also listed up to four. If user clicks a tag, system routes user to tag detail page. If a

space has more than 2 enrolled users, a crown icon is displayed near space title. If a space has higher average rate than 4, a spaceship icon is displayed near space title.

- Search Bar
- Common Tags
- Space Blocks

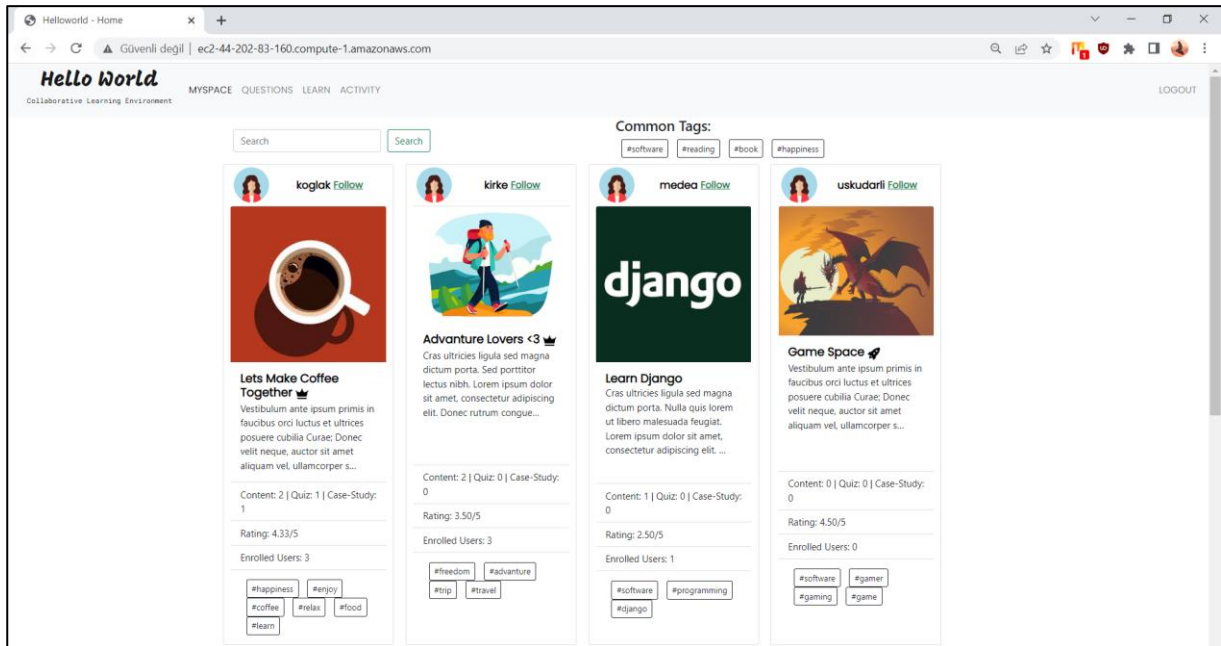


Figure 5- Home Page

When user clicked any tag related to space, the system shall route user to tag detail page. Here, the spaces which have common tag are listed. If user clicks one of space, the system shall route user to space detail page.

- Tag Associated Spaces
- Space Titles are link which routes to space page.

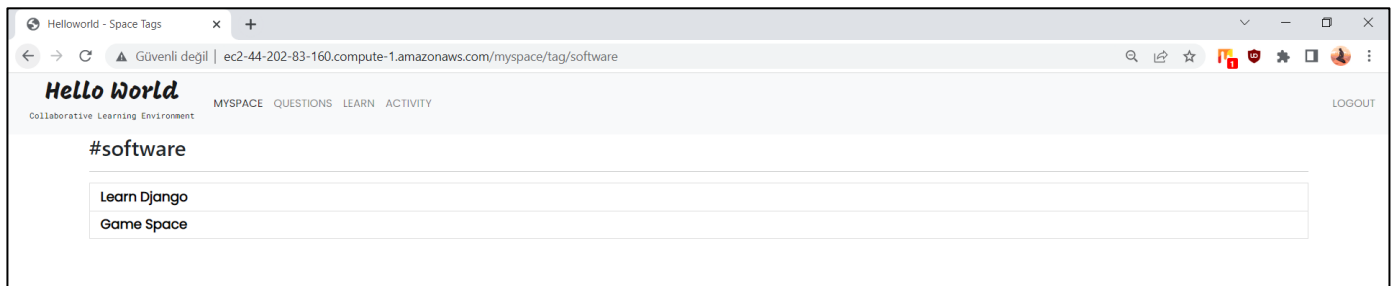


Figure 6- Tag Detail Page

## Myspace Page

When user clicks myspace page, the spaces which are created by current user are listed. Each space block contains relevant information about the space. Unlike the space block on home page, full description of space, collaborative members of space are listed. User can edit each space content by clicking “Edit Space” button. User can create new space by using “Create New Space” button. Also, user can edit her/his profile by using “Edit Profile” button. User’s profile picture and biography are displayed at right side in profile block. If user is added to other spaces as collaborative member, those spaces are listed under profile block. When user clicks space titles, system routes user to the related space detail page. When user clicks nickname of another user, system routes user to related user page.

- Created Spaces' Block
- Edit Space
- Create new Space
- Edit Profile
- List of Collaborative Spaces
- Nick names route User Page
- Space titles route Space Detail Page.

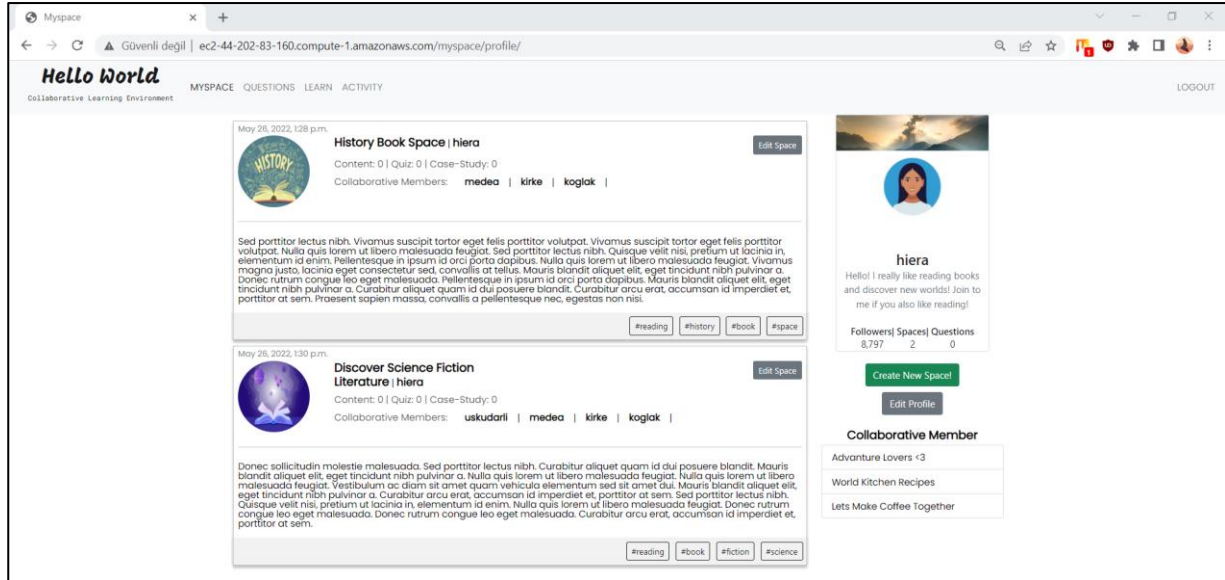


Figure 7- Myspace Page

## Space Detail Page

When user clicks any space title, system routes user to space detail page. In this page, there are 3 blocks. On left side, contents, quizzes and case-studies are listed. If user clicks one of them, system routes user to related page. If user clicks “Follow Space” button, space is displayed at Learn Page. Middle of page, content is displayed. It is textual content, and the first content is displayed by default. At left side, space block is displayed. If user clicks “Event List” button, user can see all events for this space. If user clicks eye icon near case study, user can display submissions of the case study and grade each submission. Moreover, users can rate space on this page. Quiz score is displayed next to quiz title. If user has not taken the quiz, score is visible as None.

- Follow Space / Unfollow Space
- Event List
- Quizzes
- Contents
- Case Studies
- Case Study Submissions

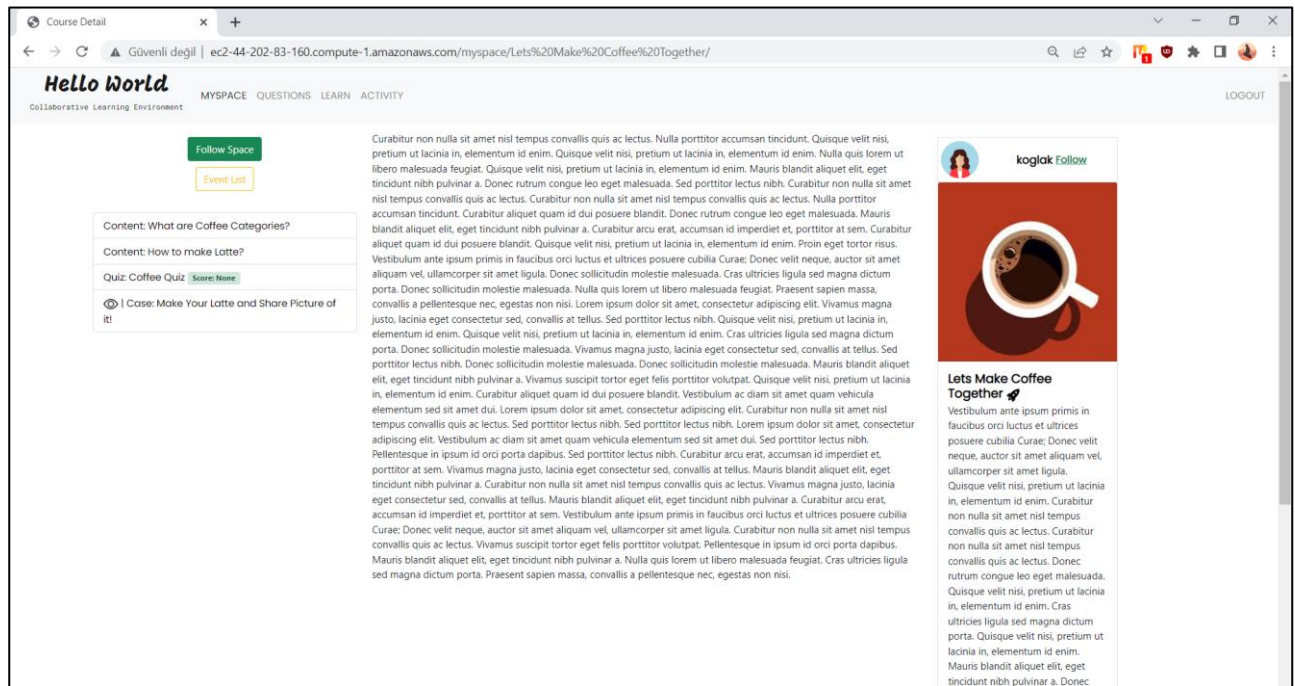


Figure 8- Space Detail Page

If user is owner or collaborative member of the space, there are additional features on this page. User can edit content or quiz by clicking pencil icon next to content name. A blue bar is displayed in order to create new content, quiz or case study.

- Create quiz, content, case-study
- Edit quiz and content

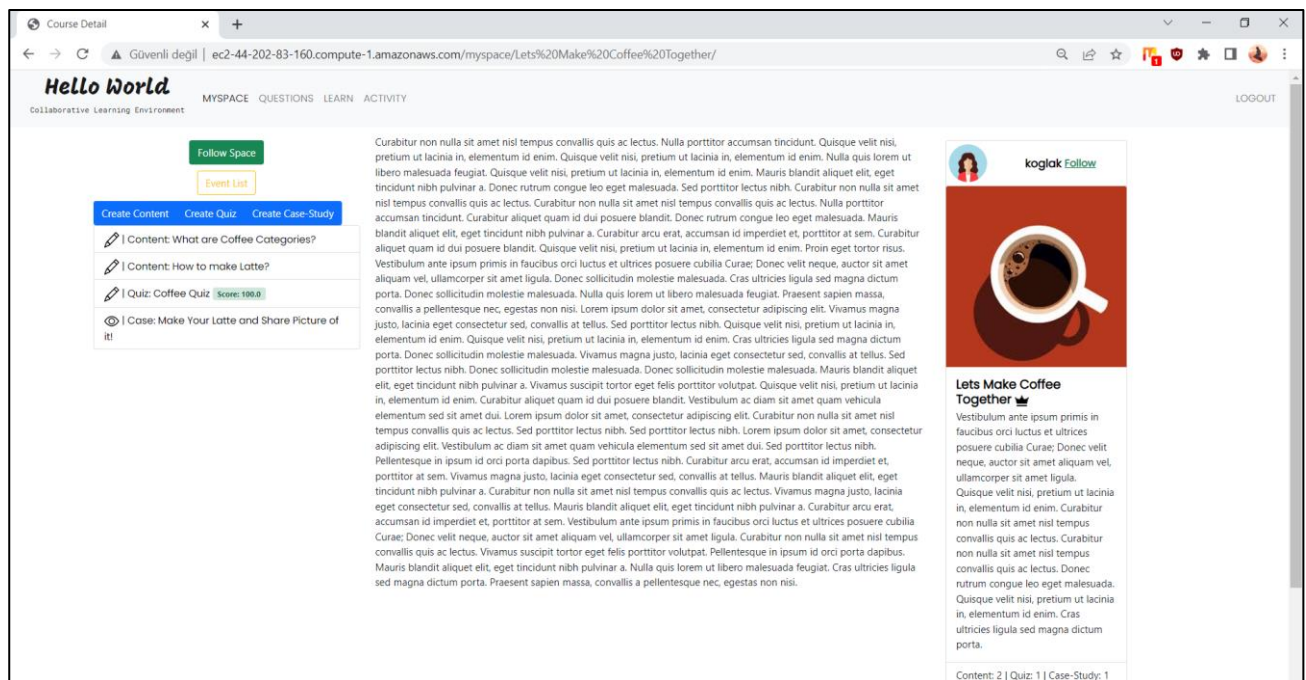
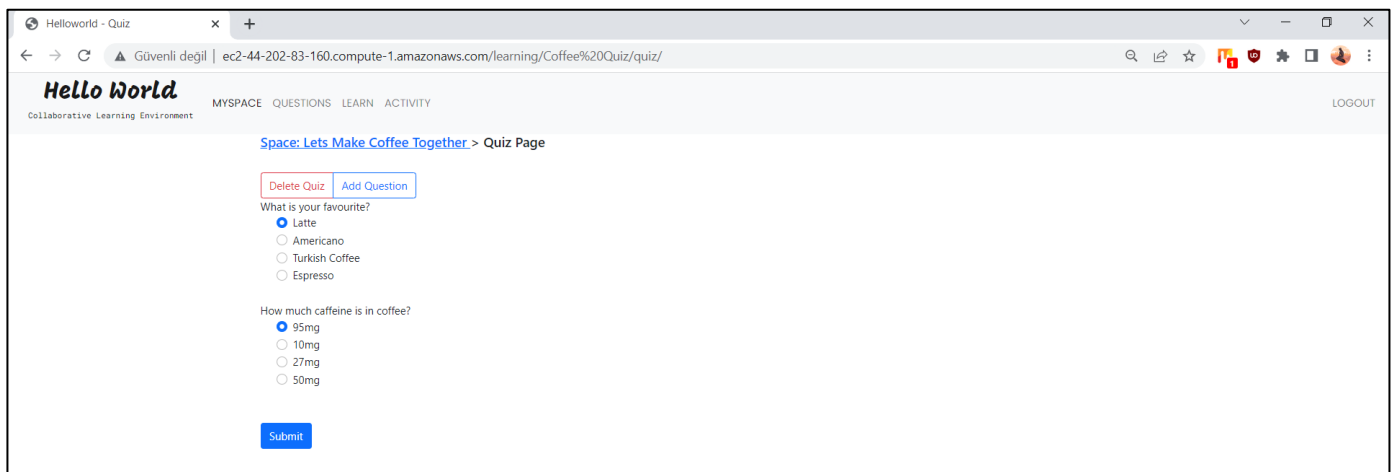


Figure 9- Space Detail Page - If user is owner or collaborative member of space

## Quiz Page

When user clicks a quiz, questions are listed. Answers are radio button where user can select only one answer. If user is owner or collaborative member of the space, user can delete quiz or add new question. Page routing path is displayed above. If user clicks space title, system routes user to space detail page. If user submits the quiz, quiz score is displayed.

- Question Lists
- Delete Quiz (visible for space owner or collaborative member)
- Add Question (visible for space owner or collaborative member)
- Submit Quiz



The screenshot shows a web browser window with the URL <https://ec2-44-202-83-160.compute-1.amazonaws.com/learning/Coffee%20Quiz/quiz/>. The page header includes the "Hello World" logo, navigation links (MYSpace, QUESTIONS, LEARN, ACTIVITY), and a "LOGOUT" button. The main content area displays the quiz title "Space: Lets Make Coffee Together > Quiz Page". Below the title are two buttons: "Delete Quiz" (highlighted with a red border) and "Add Question". The quiz questions are as follows:

What is your favourite?

- ☒ Latte
- ☐ Americano
- ☐ Turkish Coffee
- ☐ Espresso

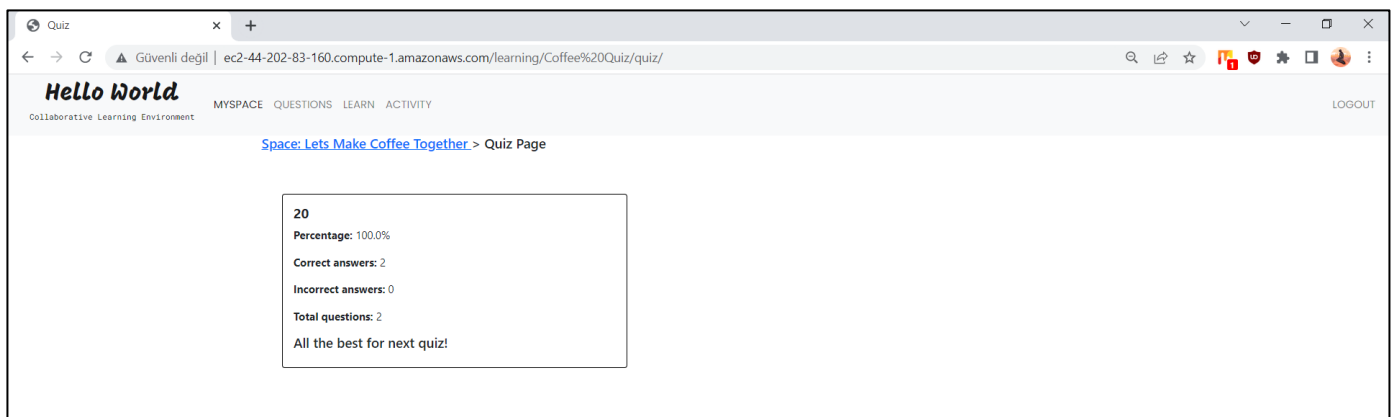
How much caffeine is in coffee?

- ☒ 95mg
- ☐ 10mg
- ☐ 27mg
- ☐ 50mg

A "Submit" button is located at the bottom of the quiz area.

Figure 10- Quiz Detail Page

If user submitted quiz, quiz score is displayed.



The screenshot shows the same web browser window as Figure 10, but the quiz questions are no longer visible. Instead, a box displays the quiz results:

20  
Percentage: 100.0%  
Correct answers: 2  
Incorrect answers: 0  
Total questions: 2  
All the best for next quiz!

Figure 11- Quiz Score Page

If space owner or collaborative member clicks “Add Question” button, system routes user to question addition page. Here user can enter question and answers. Finally, user selects correct answer from dropdown menu. If user clicks “Ask” button, question will be visible at quiz page.

- Enter question and answers
- Select correct answer



- Ask question

Question Add

Güvenli değil | ec2-44-202-83-160.compute-1.amazonaws.com/learning/Coffee%20Quiz/quiz\_add/

**Hello World**  
Collaborative Learning Environment

MYSPACE QUESTIONS LEARN ACTIVITY

Add Questions for |

Question:

Op1:

Op2:

Op3:

Op4:

Ans:

Figure 12- Question Add Page

## Case-Study Page

When user clicks case study, system routes user to case study detail page. Here user can see detailed description and instructions for case-study. At bottom, user can submit a file to attend case-study.

Create New Case Study

Güvenli değil | ec2-44-202-83-160.compute-1.amazonaws.com/learning/Latte%20Contest/case\_detail/

**Hello World**  
Collaborative Learning Environment

MYSPACE QUESTIONS LEARN ACTIVITY

LOGOUT

Space: Lets Make Coffee Together > Case Page

**Latte Contest**

Make your latte and take a photo of it. We will select the most beautiful latte picture together! Don't forget to take a good photo of your work! Picture quality might affect users' decision!

**Upload Your Work:**

Upload:  Dosya seçilmedi

File Explorer (Aç):

- Bu bilgisayar > Masaüstü > resimler
- Düzenle Yeni klasör
- SWE 573
- SWE 578
- Bu bilgisayar
- 3D Nesneler
- Belgeler
- İndirilenler
- Masaüstü
- Müzikler
- Resimler
- Videolar
- Windows (C:)

Files in resimler folder:

- 0f387215-8a51-4142-adb1-4d05c82a1fc2.sized-1000x1000
- beautiful-latin-woman-avatar-character-icon-free-vector
- beautiful-woman-avatar-character-icon-free-vector
- big-open-clapper-board-movie-reel-cinema-icon-set-movie-film...
- django
- django logo
- Docker
- icon-avatars-12
- images (1)
- images
- images

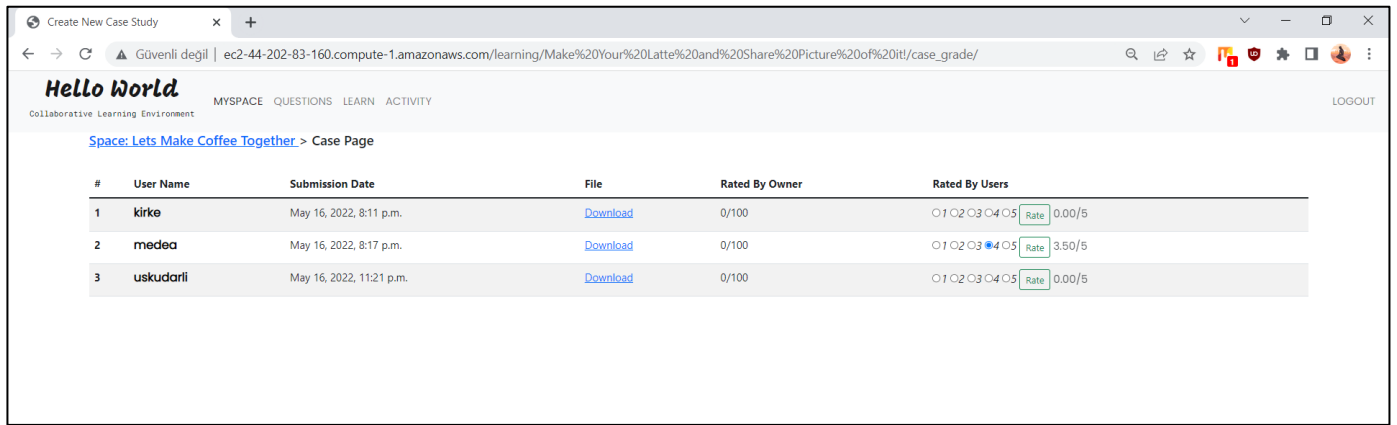
Dosya adı:

Figure 13- User Case Submission

If user clicks eye icon next to case-study, system routes user to case study submissions. Here, user can view all submissions and download the submission file. Later on, user can rate submission. Average of each submission is displayed.

- List of Submissions
- Download Submission File

- Rate Submission



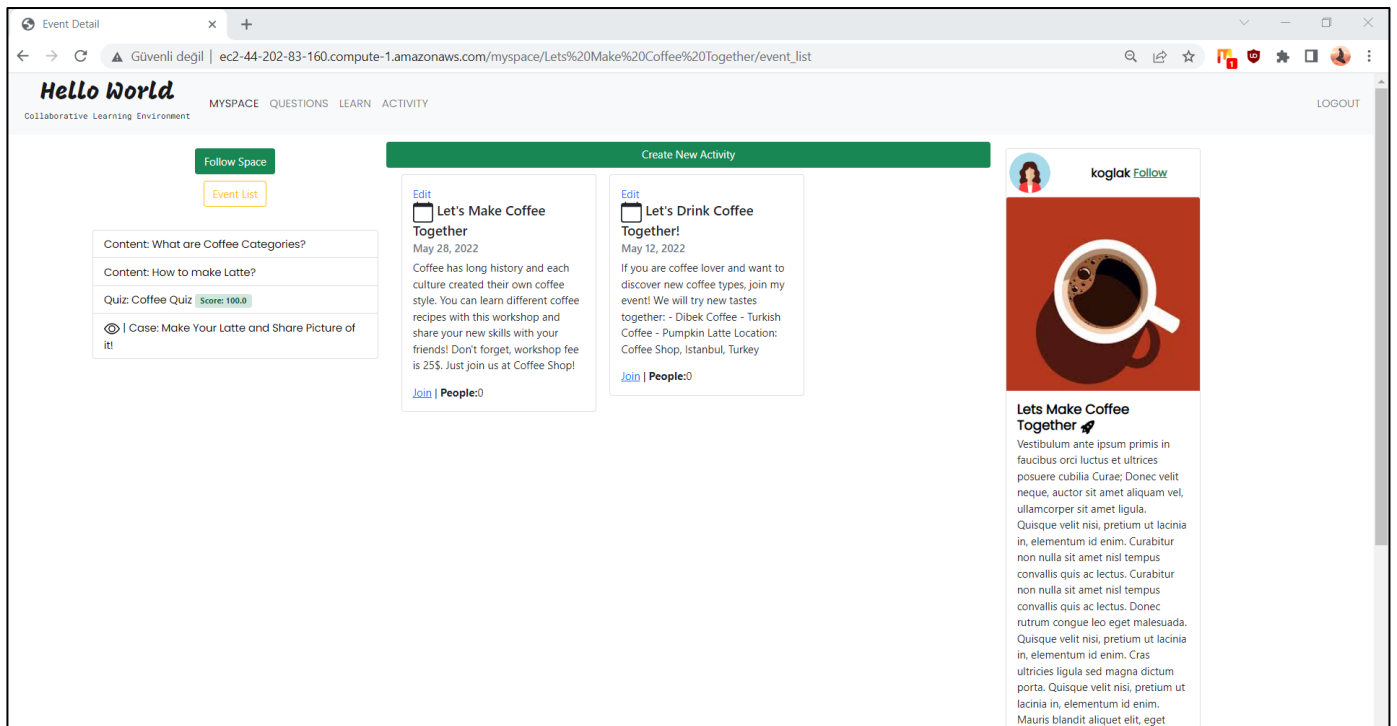
#	User Name	Submission Date	File	Rated By Owner	Rated By Users
1	kirke	May 16, 2022, 8:11 p.m.	<a href="#">Download</a>	0/100	0 1 2 3 4 5 <a href="#">Rate</a> 0.00/5
2	medea	May 16, 2022, 8:17 p.m.	<a href="#">Download</a>	0/100	0 1 2 3 4 5 <a href="#">Rate</a> 3.50/5
3	uskudarli	May 16, 2022, 11:21 p.m.	<a href="#">Download</a>	0/100	0 1 2 3 4 5 <a href="#">Rate</a> 0.00/5

Figure 14- Case Study Submissions List Page

## Event Page

When user clicks “Event List” on Space Detail Page, events are listed which are associated to space. Here user can join an event or create new activity for everyone! An event contains a title, description and date. When user clicks “Join” button, people quantity is increased which shows number of people who will attend the event.

- Create Activity
- List Events
- Join an Event



Follow Space

Event List

Create New Activity

[Edit](#)

☐ Let's Make Coffee Together

May 28, 2022

Coffee has long history and each culture created their own coffee style. You can learn different coffee recipes with this workshop and share your new skills with your friends! Don't forget, workshop fee is 25\$. Just join us at Coffee Shop!

[Join](#) | People:0

[Edit](#)

☐ Let's Drink Coffee Together!

May 12, 2022

If you are coffee lover and want to discover new coffee types, join my event! We will try new tastes together: - Dibek Coffee - Turkish Coffee - Pumpkin Latte Location: Coffee Shop, Istanbul, Turkey

[Join](#) | People:0

[Follow](#)

**Let's Make Coffee Together**

Vestibulum ante ipsum primis in faucibus orci luctus et ultrices posuere cubilia Curae; Donec velit neque, auctor sit amet aliquam vel, ullamcorper sit amet ligula. Quisque vel it nisi, pretium ut lacinia in, elementum id enim. Curabitur non nulla sit amet nisl tempus convallis quis ac lectus. Curabitur non nulla sit amet nisl tempus convallis quis ac lectus. Donec rutrum congue leo eget malesuada. Quisque velit nisi, pretium ut lacinia in, elementum id enim. Cras ultricies ligula sed magna dictum porta. Quisque velit nisi, pretium ut lacinia in, elementum id enim. Mauris blandit aliquet elit, eget

Figure 15- Event List Page

## Learn Page

If user clicks “Learn” button on navigation bar, system routes user to learn page. If user followed a space, those spaces are listed here with space block. Therefore, user can follow the spaces if he/she is interested in. If user unfollow a space, the space block will not be displayed at learn page anymore.



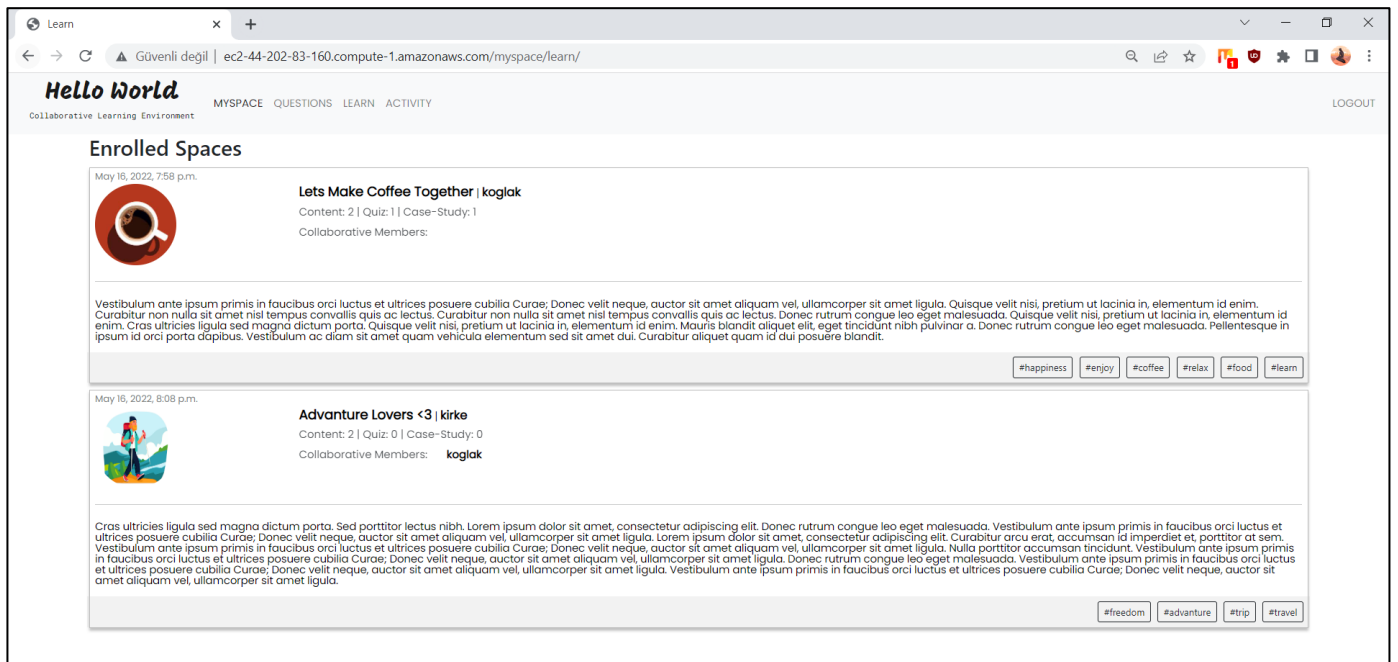


Figure 16- Learn Page

## Question & Answer Page

When user clicks “Question” button on navigation bar, system routes user to Question & Answer Page. User can create new question, search a question, and see common tags for questions. Also user can like or dislike a question. If user clicks “Comment” button, system routes user to question detail page. Like, Dislike, Comment quantities are displayed in question block. Tags are question specific, so, different tags than space tags. Same tag detail page is valid for each tag where questions are listed which have common tag.

- Ask Question
- Search Question by Key word
- Common Tags
- Like/Dislike Question

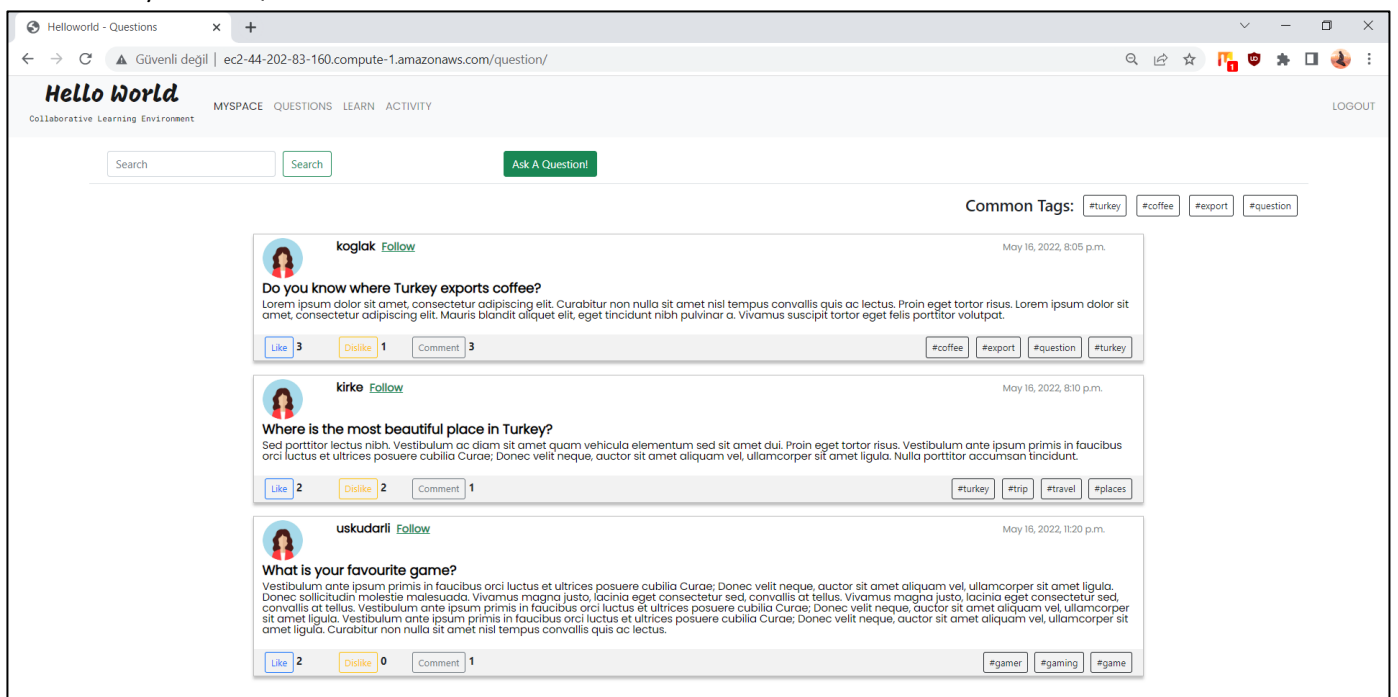


Figure 17- Question & Answer Page

When user clicks question title or comment button, system routes user to question detail page. Here user can view answers and like or dislike those answers. Moreover, user can post an answer for the questions.

- Like/Dislike
- Answer List
- Post Answer

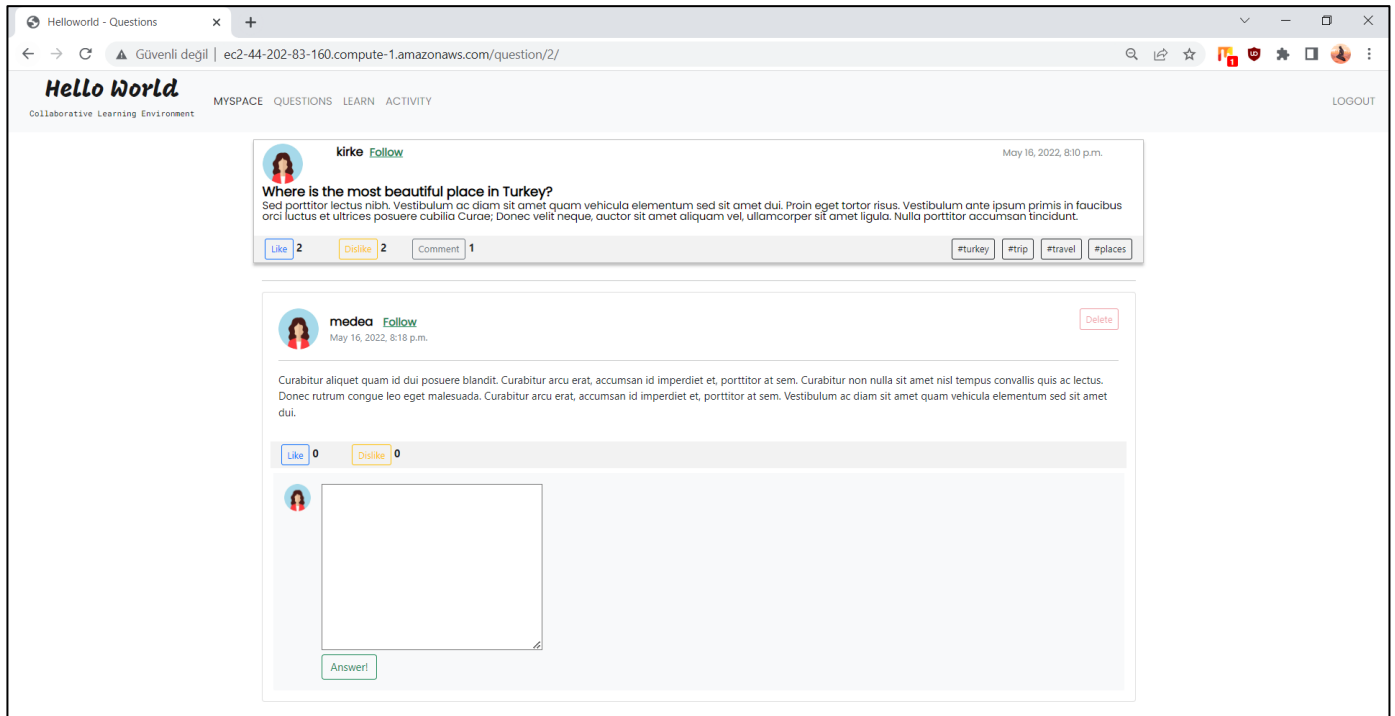


Figure 18- Question Detail Page

If user searches a key word at Question & Answer Page, system routes user to search result page. Here, the questions which have common word are listed. If user clicks a question title, system shall routes user to related question detail page.

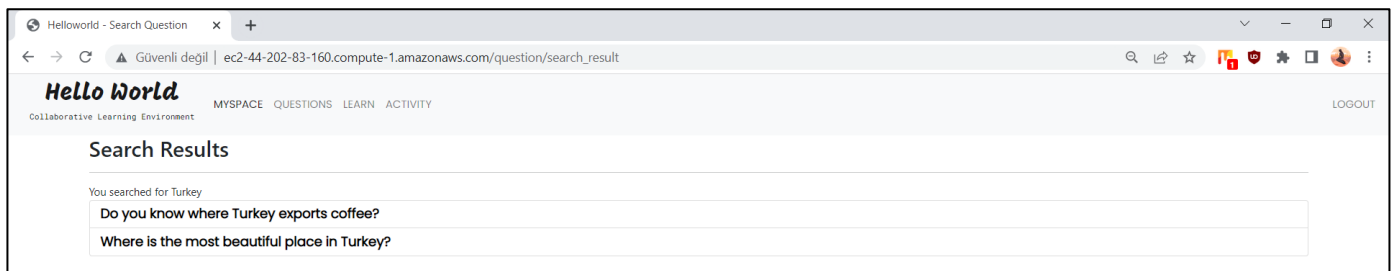


Figure 19- Search Result

## Activity Page

When user clicks “Activity” button on navigation bar, system routes user to Activity Page. Here user can create new activity or see activity list. This activity page is not unique to space but common page for every user. The features are same as space unique activity page.

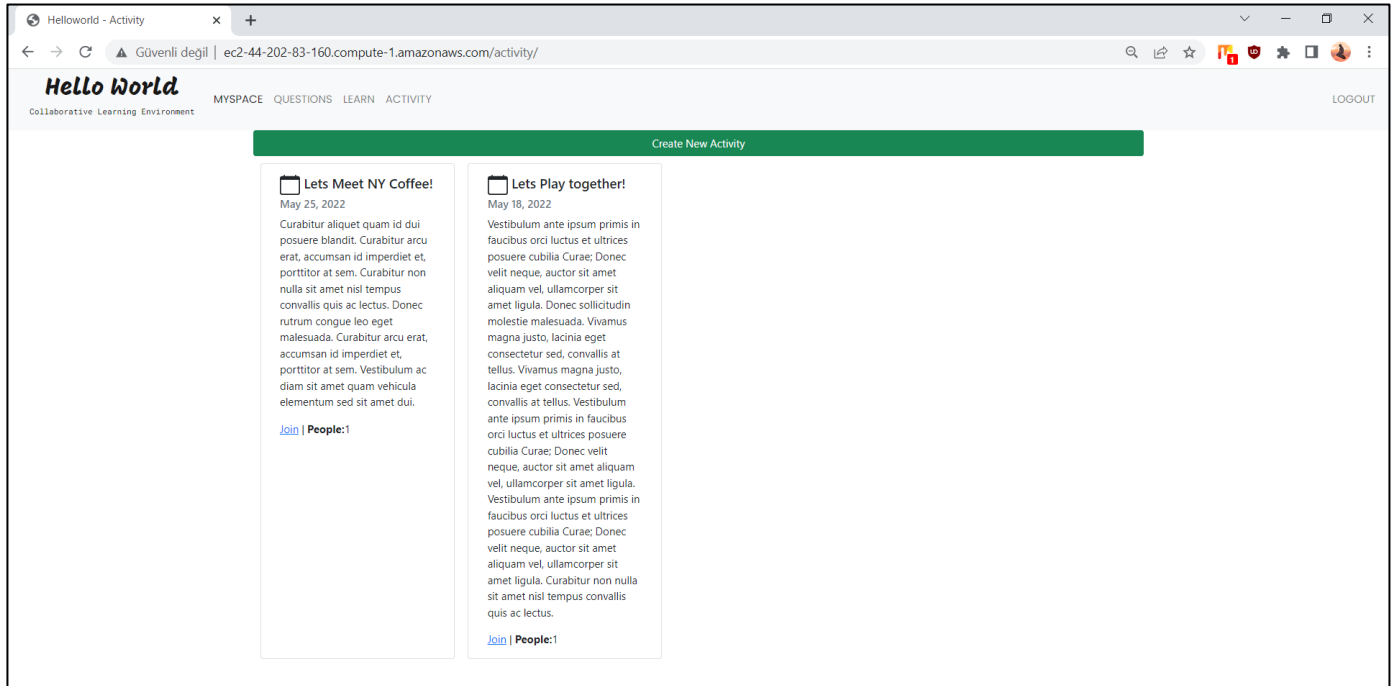


Figure 20- Activity Page

## SYSTEM MANUAL

### Prerequisites

- **Python**
- **Django:** `python -m pip install Django`
- **Virtual Environment:** `python -m venv myvenv`
- **PostgreSQL**

### Instructions to run project:

1. **Create a folder and go there:** `cd <folder_name>`
2. **Clone:** `git clone https://github.com/koglak/SWE573`
3. **Create docker images:** `docker build . -t <container_name>`
4. **Run app:** `docker-compose up`
5. **Go your local host:** <http://localhost>

### Instructions to deploy project on AWS:

1. **Connect your EC2 instance**
2. **Pull project repository:** `docker pull public.ecr.aws/e601k0f1/projectcont`
3. **Create docker-compose.yml file:** `touch docker-compose.yml`
4. **Update docker-compose.yml file:** `vi docker-compose.yml`
5. **Run the project:** `docker-compose up`

## PROJECT MILESTONES

Weekly milestones have been determined for the project. The prioritization criterion has been determined according to the features requested by the customer and reusable features. Issues are raised weekly according to

milestones' content. Issues are raised according to Requirements Categories such as Home Page, Space Page and so on.

#### **Milestone#1: 12.04.2022**

Link: <https://github.com/koglak/SWE573/milestone/4>

- Database Migration
- Login & Register Page
- Myspace Page
- Question & Answer Page

#### **Milestone#2: 19.04.2022**

Link: <https://github.com/koglak/SWE573/milestone/5>

- Advanced Features of Question Page
- Home Page
- Space Detail Page

#### **Milestone#3: 26.04.2022**

Link: <https://github.com/koglak/SWE573/milestone/6>

- Advanced Feature of Myspace Page
- Unit Testing

#### **Milestone#4: 03.05.2022**

Link: <https://github.com/koglak/SWE573/milestone/7>

- Content Detail Page
- Activity Page
- Docker

#### **Milestone#5: 10.05.2022**

Link: <https://github.com/koglak/SWE573/milestone/8>

- Room Page
- Docker

#### **Milestone#6: 17.05.2022**

Link: <https://github.com/koglak/SWE573/milestone/9>

- Space Event Page
- Application Tests – Problem Solutions
- Deployment

#### **Milestone#7: 24.05.2022**

Link: <https://github.com/koglak/SWE573/milestone/10>

- Project Report Preparation
- Complete Project Submission File

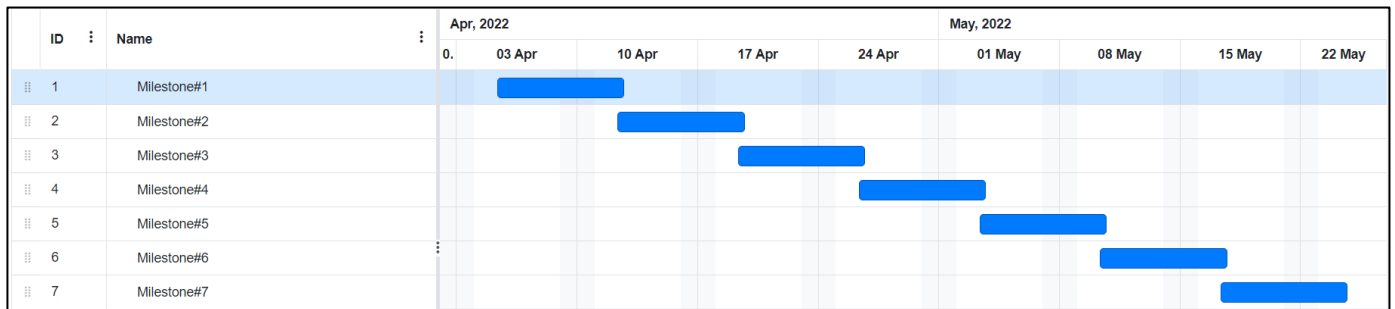


Figure 21- Gantt Chart – Weekly Milestones

## WIKI PAGES

During the project, a wiki page is created for each subject. Here are the links:

- Git Version Control: <https://github.com/koglak/SWE573/wiki/Git-Version-Control-System>
- API Testing: <https://github.com/koglak/SWE573/wiki/API-Testing>
- Django: <https://github.com/koglak/SWE573/wiki/About-Django>
- Unit Test: <https://github.com/koglak/SWE573/wiki/Unit-Test>
- Docker: <https://github.com/koglak/SWE573/wiki/Docker>
- Deployment: <https://github.com/koglak/SWE573/wiki/Deployment:-AWS>

## UML DIAGRAMS

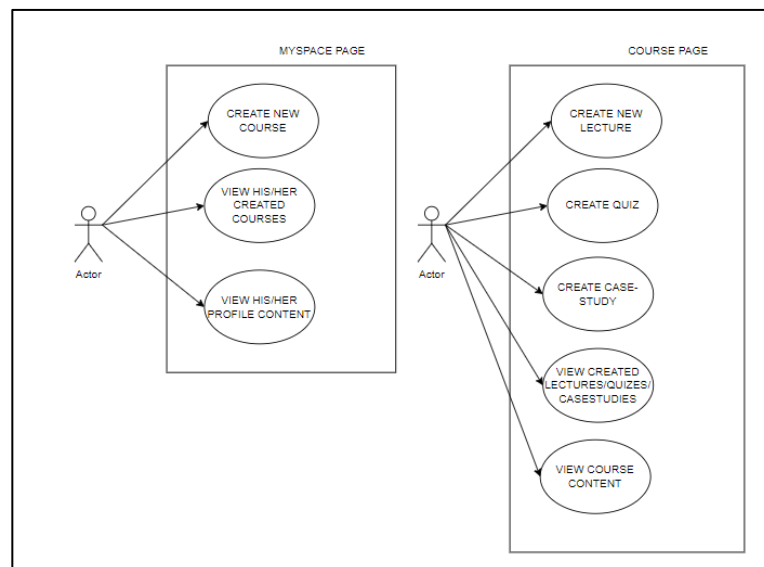


Figure 22- User Case for Myspace & Course Page

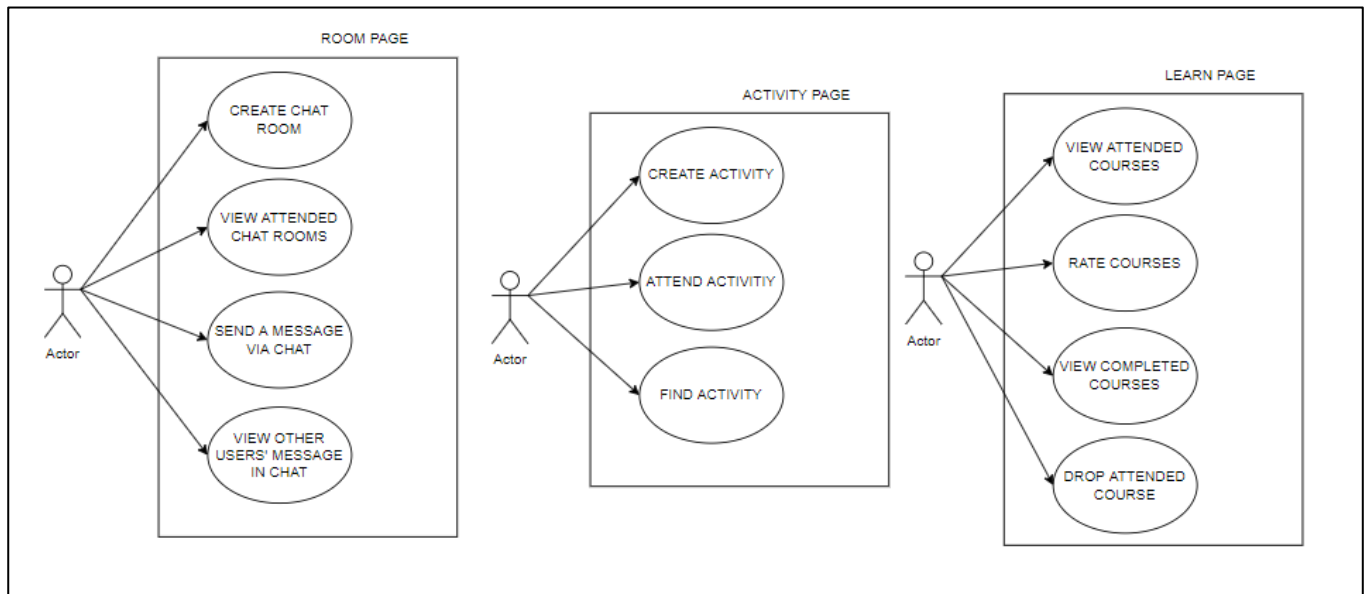


Figure 23 - User Case for Room, Activity, Learn Page

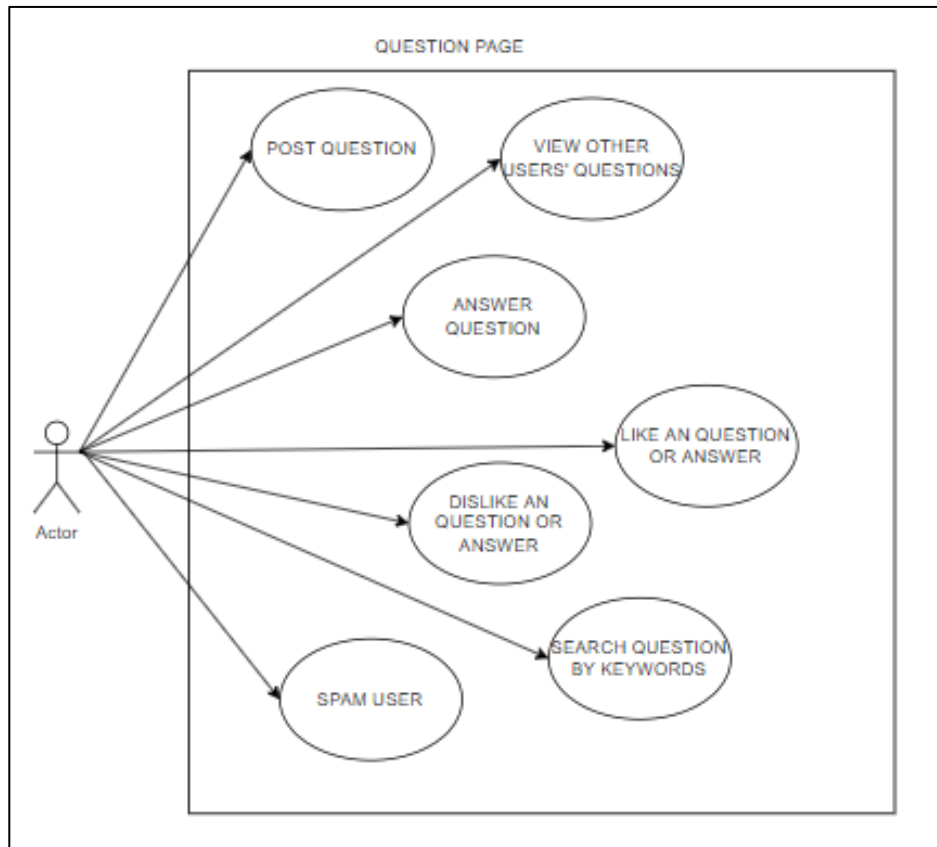


Figure 24- User Case Question Page

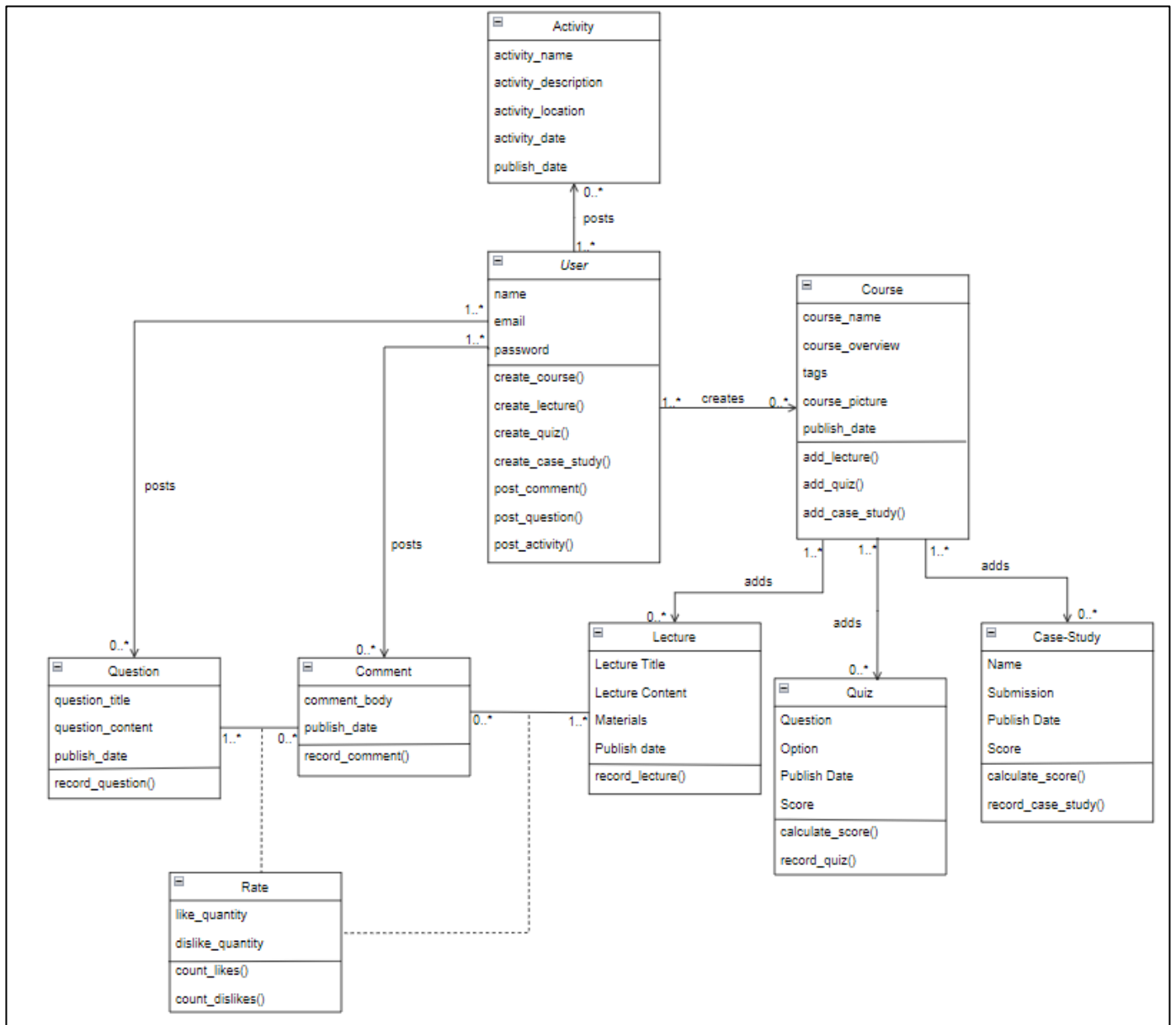


Figure 25 - Class Diagram for Database

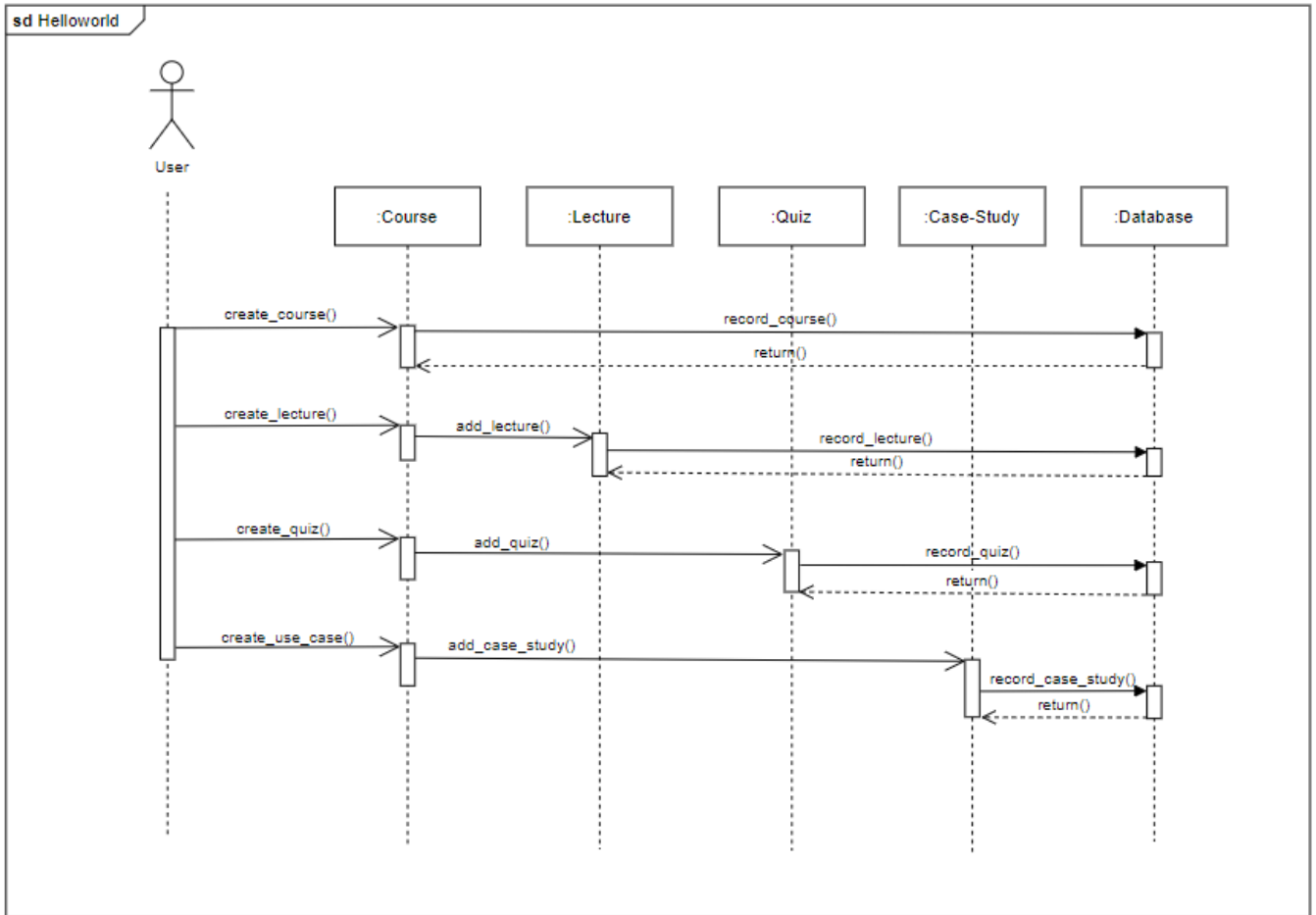


Figure 26- Sequence Diagram for Courses



## MOCK UP SCREENS

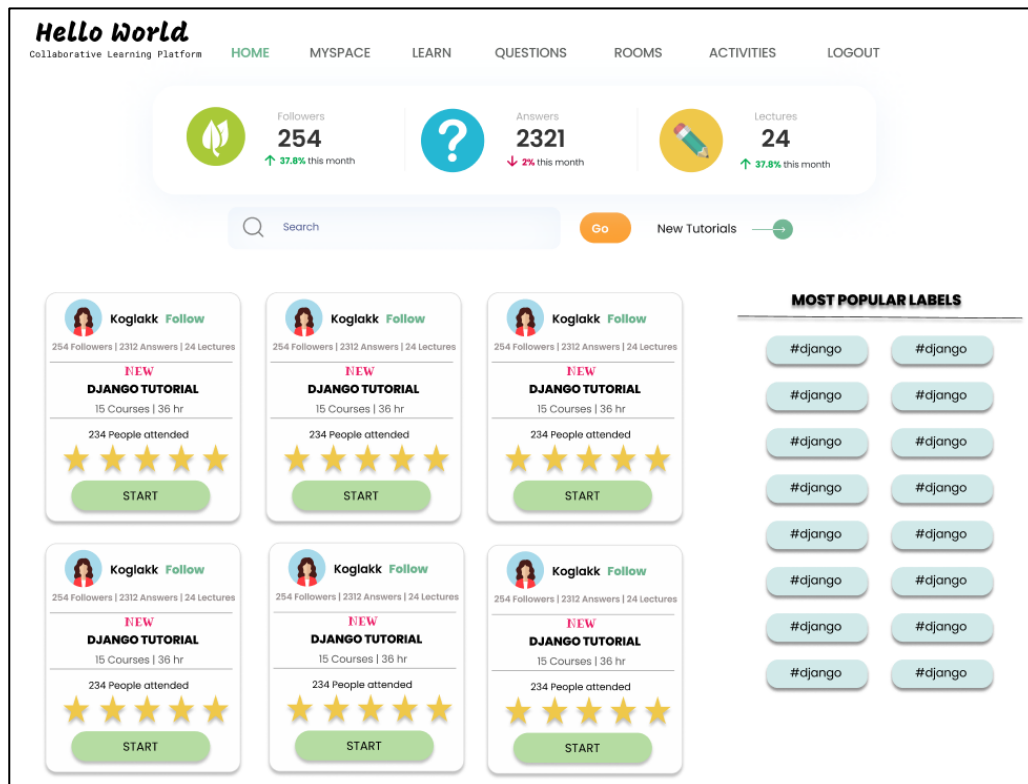


Figure 27 - Mock Up for Home Page

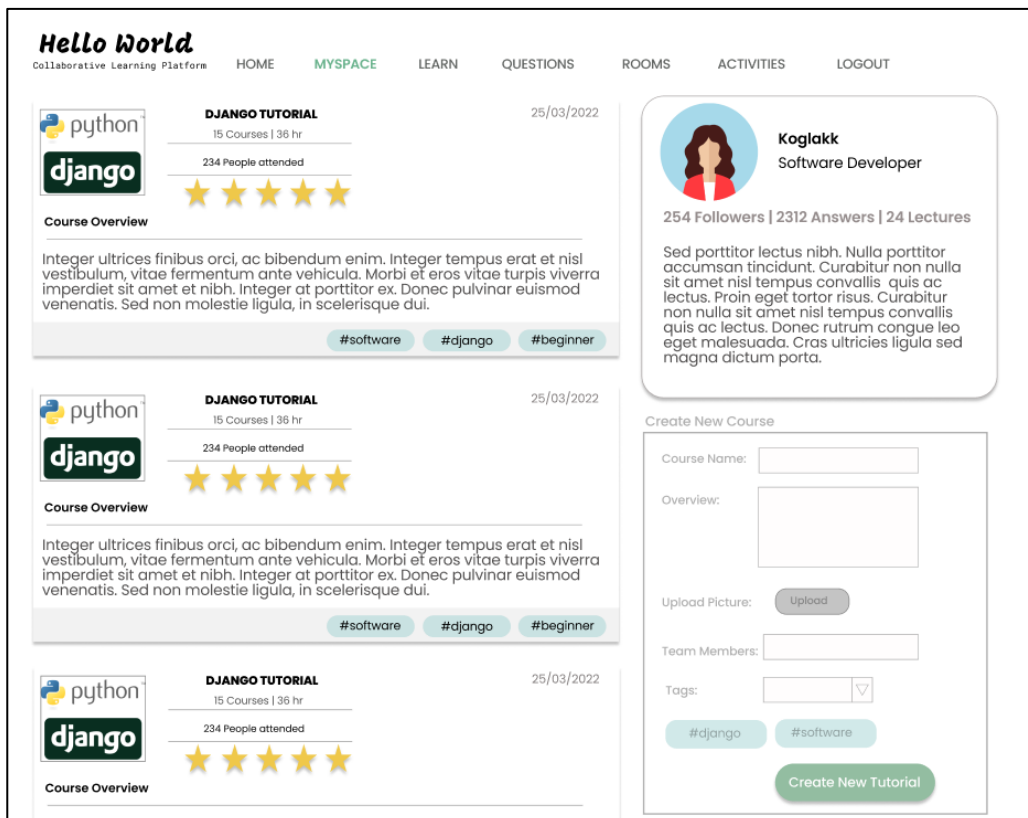


Figure 28 - Mock Up for Myspace Page

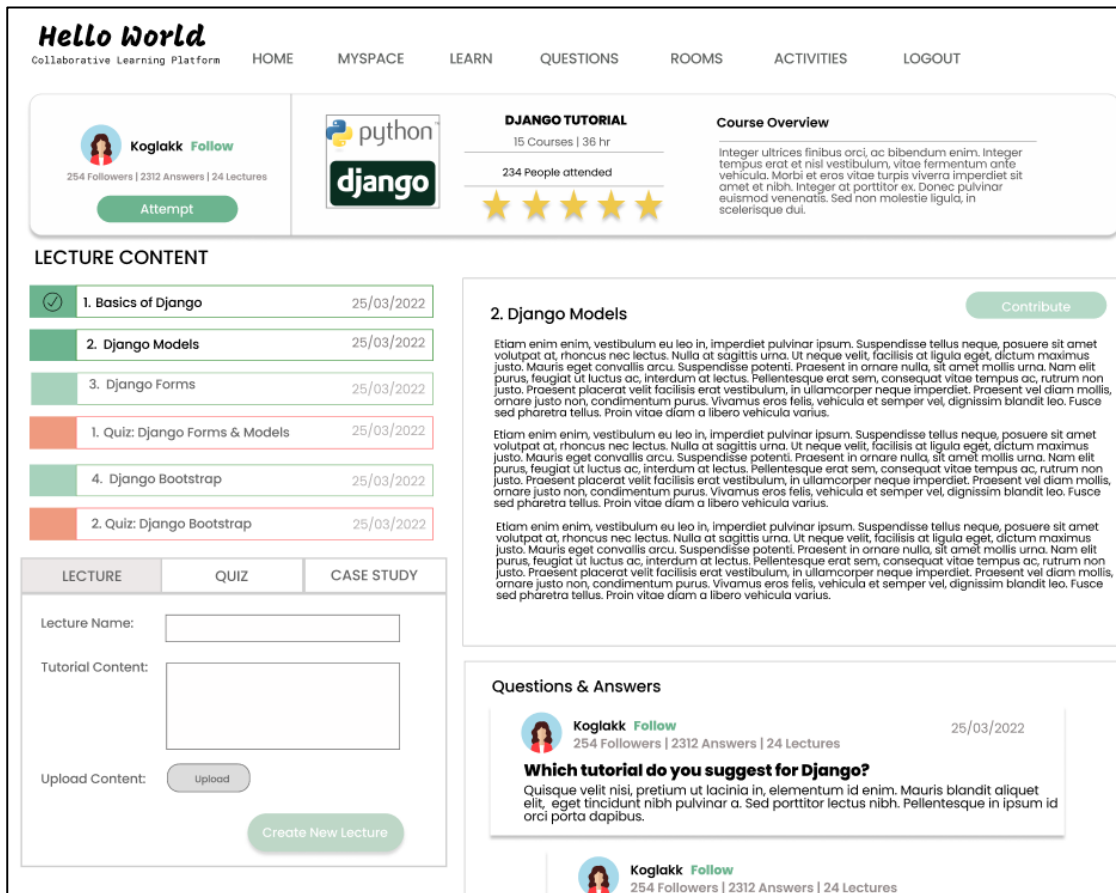


Figure 29 - Mock Up for Course Page

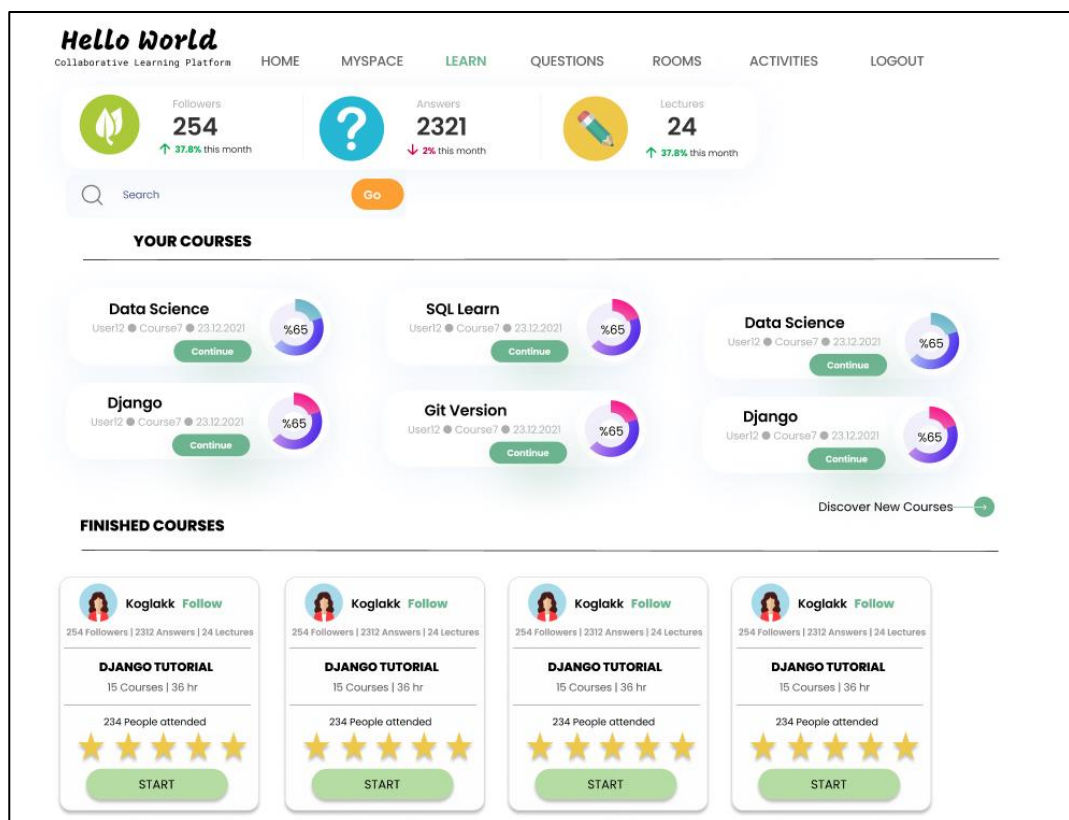


Figure 30- Mock Up for Learn Page

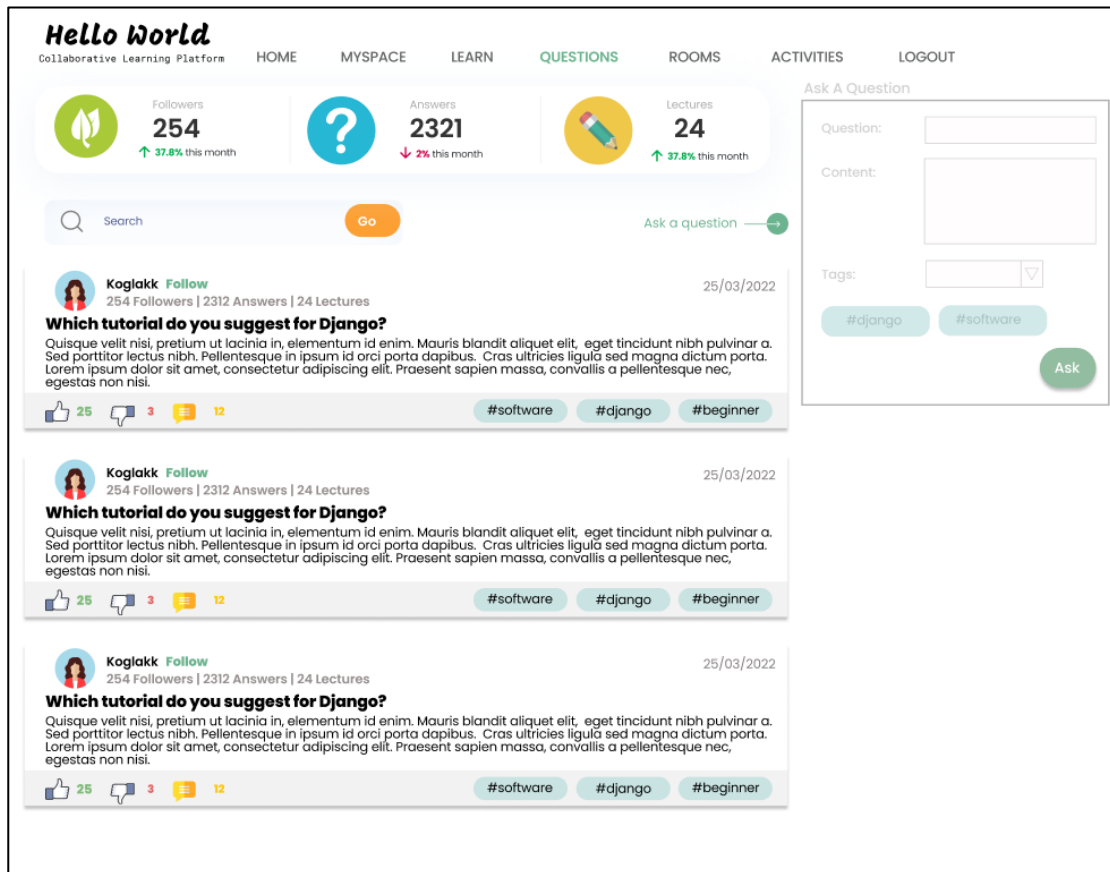


Figure 31 - Mock Up for Question Page

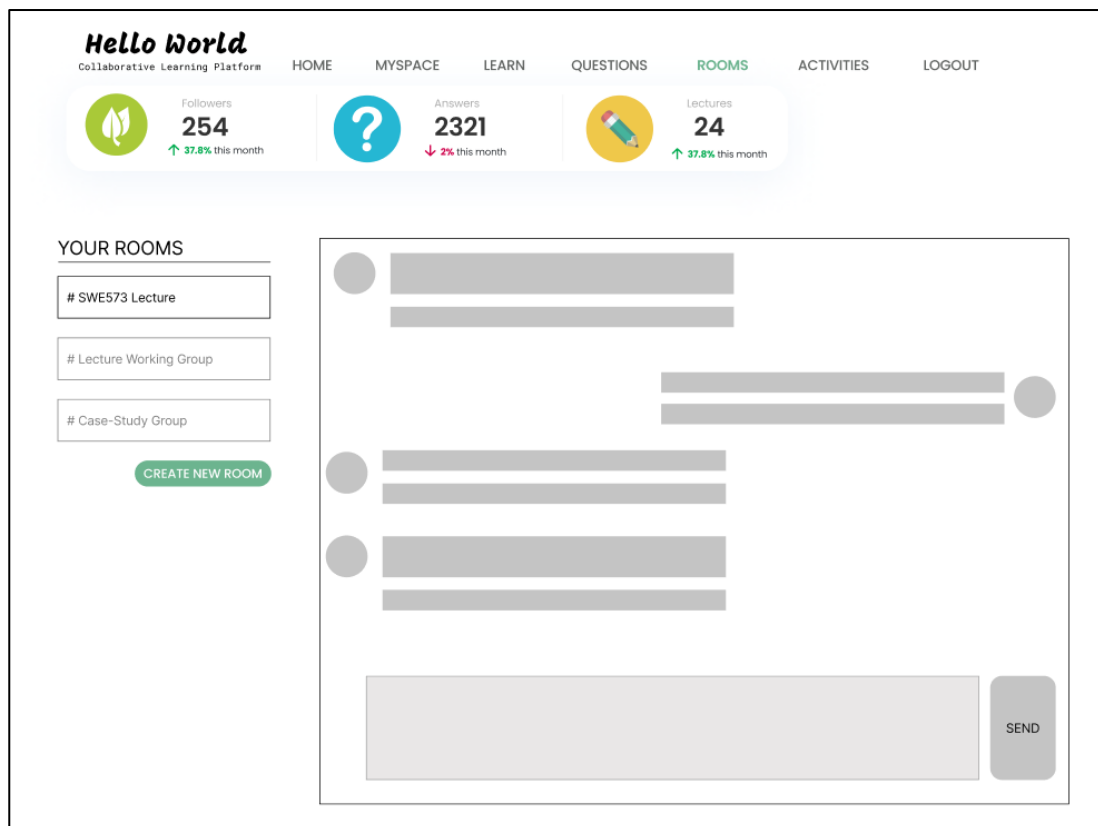


Figure 32 - Mock Up for Rooms Page

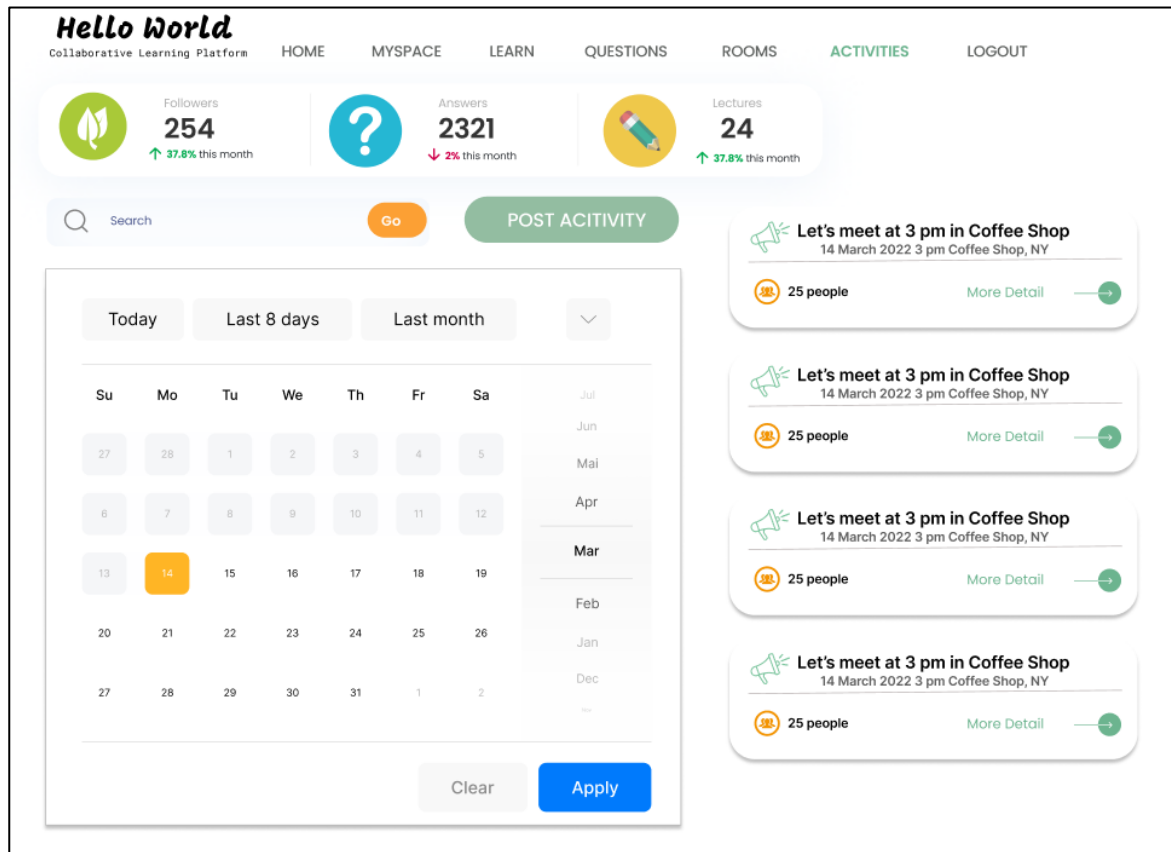


Figure 33 - Mock up For Activities Page