Milestone 1 Report

Contents:

- 1. Executive Summary.
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- 3. Evaluation of the status of deliverables and its impact on your project plan.
- 4. Evaluation of tools and processes that you have used to manage your team project.
- 5. A summary of work done by each team member (in tabular format)
- 6. Deliverables

1. Executive Summary:

Milestone 1 was the due date for finalizing the software design. Therefore, most of the design process is finalized, even though changes may occur during the implementation phase and potential problems may require design changes. In the case of this project, the mockups are very mature and will be a helpful guide throughout the implementation of the project. The requirements are written in detail, however a prioritization process needs to take place; Must-have requirements must be separated from the good to have requirements. The project management is planned such that the next milestone will include basic functionalities and each of the following milestones will be about adding new features to the previous deliverable.

2. List and status of deliverables.

- (a) Scenarios and Mockups ✓ are done
- (b) Software Requirements Specification ✓ done
- (c) Software design documents in UML: Use case diagram \checkmark done, Class diagram \checkmark done, Sequence Diagram \checkmark done
- (d) Project plan ✓ done
- (e) GitHub wiki pages are up to date ✓

3. Evaluation of the status of deliverables and its impact on your project plan.

- (a) In terms of <u>Scenarios and Mockups</u>, a lot of thinking has been implemented into process that will be helpful for the development phase. The visual representation of the mockups has helped during the software design as well.
- (b) The process of defining the <u>Requirements</u> has taken part in several stages. At the start of the process, the first version of the requirements was listed. Afterwards, the unclear parts that were formulated into requirement elicitation questions, which are also provided as a deliverable and can be found in section 6 of this document. After clarifications, the revised requirements (second version) were submitted.
- (c) The Software design documents in UML need further improvements, but the basics are covered.
- (d) The project plan is divided into 3 milestones (Dates and further details can be found at the last page of the document). Next milestone will cover basic functionalities, like Login, Register, Profiles, Followers, User Search, User Notifications, Likes and Dislikes. Additionally, the deliverable will be dockized.

4. Evaluation of tools and processes that you have used to manage your project.

The management system has been mainly conducted on GitHub and the associated wiki pages. The workload was constantly been organized in issues. During this process the project backlog was used to draft the issues and then categorize them. Once the issue was crated, the corresponding labels were attached. They were assigned to the project developer. The issues were explained carefully and connected to milestones. Any task that required a research, documentation process, or produced a deliverable, was associated with a wiki page. Once the issue was done, the findings were documented in wiki.

5. A summary of work done by each team member

All work has been done by one contributor only, however the progress over time can be summarized as follows:

Week 1:

- repo created
- wiki pages created
- watched the recommended video related to git versioning system
- done additional research related to git
- still need to further research wiki

Week 2:

- the aim is to do both tutorials for better improvement
- created issues related to the execution of tutorials
- created a simple "hello world" page on the local machine

Week 3:

- caught up with the previous two week's missing assignments- proper research on git and wikidata.
- created new wiki pages: (about me, research, lecture notes, requirements etc.) and added the relevant information/research into them.
- personalised the newly created wiki pages, with images and gifs
- personalised the readme file with relevant information and images-gifs
- formulated elacitation questions
- worked on the first draft of the requirements
- came up with a name for the application: "wE-Learning"

Week 4:

- started by writing the notes taken during lesson on the "lecture notes" wiki page
- created mockups of hypothetical users, and thought through their experiences
- documented the mockups in the wiki page

Week 5:

- Preparation for the milestone set to 5th of April with following deliverables:
 - o D-1 Software Requirements Specification
 - o D-2 Software Designs
 - D-3 Project Plan
 - o D-4 Milestone report
- Preparation of delivering a functioning code- following tutorial (the registration process is implemented)

6. Deliverables

(a) Scenarios and Mockups

Scenarios:

Persona 1: Doğan Doğa, 22

- Doğan is a passionate young academician. Originally, he is from Turkey, and has a very successful background. He has graduated from İst. Erkek Lisesi as the best student after which he has shown great success in University entry exams. He graduated from Boğaziçi Universty EE department and recently started pursuing his masters at MIT, on a full scholarship.
- Besides all the fancy titles and incredible success stories, Doğan is a person who really enjoys learning and spending his time in the library. Professionally, he is particularly interested in 3d

printing. As a hobby, he enjoys to watch movies and speculate of the psychological meanings behind it (additionally, he is a Potterhead). He likes to read about movie criticism, modern psychology and related literature like J. Campbell, Jung and Freud.

- At the moment he lives in Boston, in MIT Campus. He's employed as a research assistant, and his program allows him considerable amount of spare time to devote to his hobbies.
- As a newbie abroad, he is searching for a platform on the web where he can find like-minded fellows. He would like to be friend such people both in person and online.

Persona 1_Scenario 1 (First encounter)

- He comes across to the wE-Learning platform, and after reading the informative material about how the system works on the **landing page**, he feels interested and wants to learn more, therefore continues as a guest.
- He goes to the home page, that includes a search bar and types "Movie Criticism Psychology".
 As a result he finds the following learning environments: "MIT Movie Club", "Movie Lovers Worldwide", "Movie Analysis in Psychology"
- He likes the suggestions and clicks on "MIT Movie Club". He can see a bunch of channel titles: "Announcements", "RoadMap", "Weekly Meeting Highlights", "General", "Share-out", "Society". He clicks on "RoadMap" and sees that each week, members of this group are analyzing one movie (some weeks they have two options and members can choose).
- Members also organize a weekly event for watching that movie together, afterwards they write criticism papers and post them on the "Share-out" channel.
- Doğan clicks on the "Share-out" channel. To his luck, that week's movie was the Harry Potter and he can find a bunch of posted papers on this topic. He is particularly interested in one paper that has done the psychological analysis in jungian perspective.
- Doğan loves this post, and is very curious about the person who posted this article. He can see the name of the writer, but when he wants to access the profile page to know more about him, he can not access (as he entered the web application as a guest). Therefore, Doğan decides to sign up to wE-Learning.

Persona 1_Scenario 2 (Login)

- Doğan is ready to provide the necessary information and create an account; He returns to the home page and than clicks on sign-up.
- Doğan signs up by entering the following information:
 - o Name
 - Surname
 - o Email
 - o Password

- Password Confirmation
- As the final step, he checks Agree on terms and conditions.
- He immediately receives an email message confirming that "He has become a member and now he can join learning environments and connect with other members."
- He goes to the Login section.
- He logs in with his username and password.
- After the login, a new sidebar menu is opened with the following tags.
 - My Profile
 - o Join Learning Environments
 - o Follow other wE-Learners
 - o Create new Learning Environments
- When he clicks on My Profile section, he sees that there are some available fields that he fills in.

Fields	User Input
Profile Picture	X
Name Surname	Doğan Doğa
Description	I'm a young academician
Location	Boston, USA
Area of expertise	Electrical Engineering, 3d printing
Area of interest	Movies, Psychology, Critisim, Analysis, Writing, Reading

Profile Page Form

- Then he clicks on the learning environment he found before. Now, he can see a join button, and becomes a member of the group. This group is public therefore he does not need to wait for approval.
- As a member, he is now able to see the other members of the learning environment. He checks out the profile of the user, whose paper he enjoyed reading.
- He likes the profile page of the user, and sends a friend request, feeling lucky to have found a seemingly like-minded person.

Persona 1_Scenario 3 (Create Learning Environment)

- Doğan is happy of the experience so far, but wants to further explore the application.
- He uses the search engine one more time and looks for "3d printing"
- Unfortunately, there is no such a learning environment, and he decides to create it himself. He goes to the "Create Learning Environment" page, and comes across to another form.

Fields	User Input
Title of the Learning Environment	3D Printing Enthusiasts
Privacy choice	Public
Description	Learning Environment for 3D Printing Enthusiasts worldwide
Add Channels (option to add more +)	Roadmap, General, Quizz (mandatory chanells required by system); Doğan adds additional channels: "3d printed architecture examples", "My 3d printed objects" (for members to share their own prints)

Learning Environment Creation Form

- He clicks on the Create button.
- Later that day, the new learning page is joined by its first members. Doğa chats with them through DM's and they start filling the learning environment with new channels and new, appropriate, good-quality, learning materials(books, videos, images, diagrams, texts) posted on those channels.
- The new members that chat with Doğan enjoy the conversation and acknowledge his expertise on the topic. Doğan receives "Master of 3D printing" badge.
- Doğan pins up the most useful resources for each channel. For the moment he is the only learning page owner and can create channels. As the community starts to grow and other people with experience join the learning environment, he may choose other responsible and knowledgeable members to become co-owners.

Persona 2: Micarah Tewers, 26

- Micarah is a costume sewer, creator and fashion designer with a DIY style who likes to create everything from prom dresses to historical costumes to fairy tale outfits. She is a YouTuber with a channel of 1.8 million subscribers. She has dressed up as characters from movies like Spider-Man, Pretty Woman, The Princess Bride and Frozen.
- She has a community of fans already, but wishes to have a more intimate relationship with people who share the same passions as she does like: Creative writing, Costume Designing, Sewing, Humor, Cosplay, Historically accurate outfits, Video content creation etc.
- She wants to join already existing learning environments related to her topics of interest, but also wants to create a new environments, where she can learn new techniques of sewing but also teach her skills to people who would like to go on a similar path as she does.

Persona 2_Scenario 1 (Quiz system)

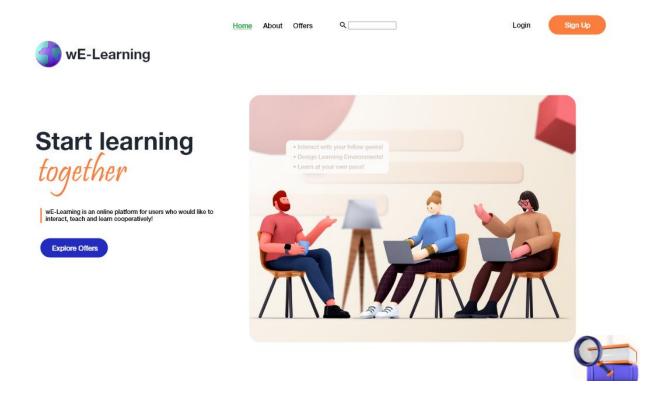
- Due to the reasons mentioned above, Micarah creates a new learning environment called "Creative Sewing".
- She is used to being followed and having fans, but she wants to see how many people would actually learn from her, therefore she is exited for this new experience. She wants to include newcomers with no experience before, therefore creates a roadmap that starts with the very basics of sewing.
- The roadmap comes with certain milestones, and Micarah designes a quiz for each of these milestones. The quiz system can be a multiple choice question, or might require a submission. As sewing is a practical knowhow, Micarah mostly prepares submission kind of quizzes.
- The submission phase takes place in the channels created for their submission. For instance a member that has finished the first step- basics of sewing, will encounter quiz 1. The member will execute the sewing challenge and post the picture in the channel: "Quiz 1 submissions". Micarah, as well as other members can see the submission, comment and guide the person on their learning journey.

Persona 2_Scenario 2 (Co-learning)

- Micarah and other members of the learning environment decide to have collaborative brain stormings.
- These discussions will be like a collaborative practice of sewing techniques.
- Members will click on Co-learning section, which will take them to this page, devoted for the experience of learning together.
- Members can communicate, by chatting. They can also share images of their progress and ask questions, or ask for critiques.
- The posted material will remain for any person who would have the same question.

Mockups

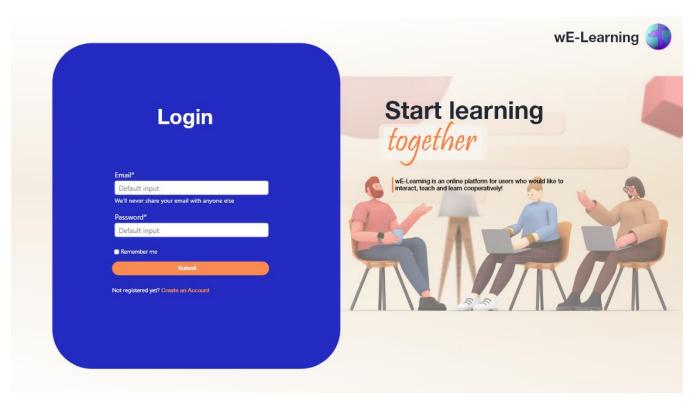
Landing Page: Vanessa has heard of the wE-Learning community, and wants to explore the website.



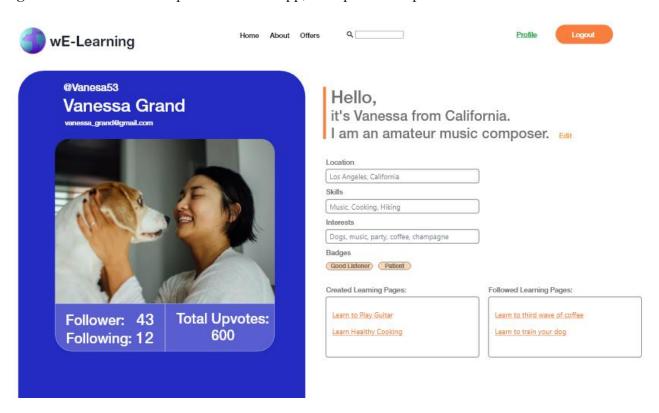
Register Page: As the landing page made a good impression on her, she wants to register, dive deeper.



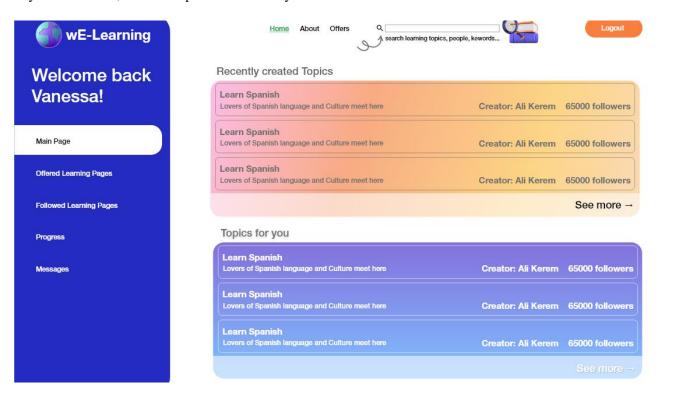
Login Page: Once she is registered, she is ready to log in.



Profile Page: After one week of exploration of the app, she updates her profile.

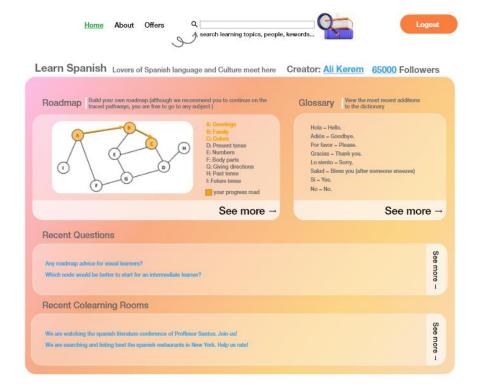


Home Page when Logged in: The system shows to wanessa the popular learning topics as well as topics that may suit her tase, based on previous activity.

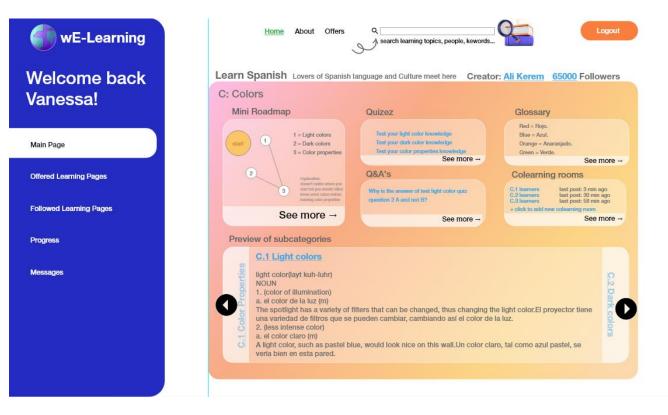


Main Learning Page: Vanessa has been studying Spanish for a while and she is ready to start the third subtopic.



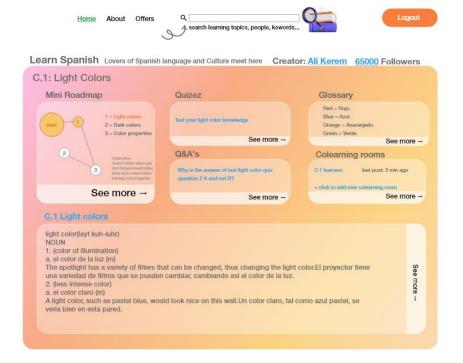


Learning Subcategory Pages: She clicks on the third subtopic and goes to a main page of the subcategory where she can see a mini-roadmap, all colearning environments and all quizzes related to the subcategory.

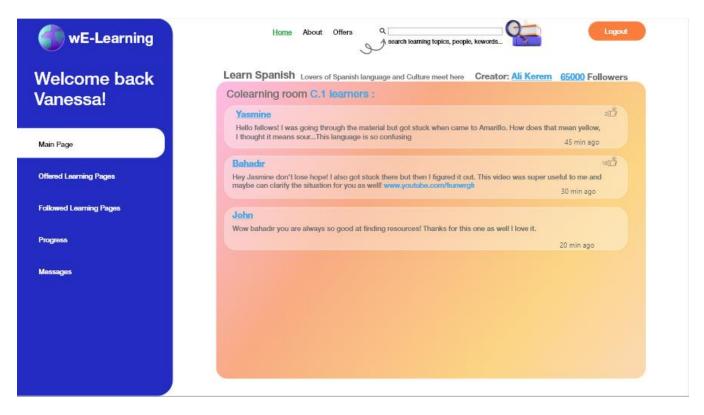


She desires to start learning colors, by learning light colors first. Therefore her journey starts on the miniroadmap as well. On this page she can only see the relevant colearning environments and quizes.

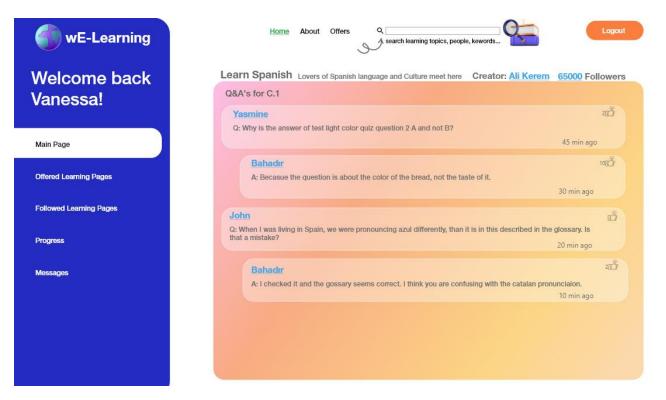




Collaborative Learning Page: She is curious what other followers of the page have been discussing so far, so she has a quick look over the C.1 Learners co-learning room.



Q&A Page: She also checks out the Q&A's.



(b) Software Requirements Specification

Requirements Elicitation

Elicitation Questions

1. What's the problem or need that this application will address? Could you please describe the purpose of this application?

This is an app that brings together the people who **love to learn**. Using this app they will be able to learn new topics or contribute to the topics they already have knowledge about so that others can benefit as well. This application will provide an environment for learning together, therefore this is not a personal journey but a shared experience.

2. What kind of subjects can people learn about on this platform?

There are no restrictions. The subjects can vary from algebra to baking a bread.

3. Who are the stakeholders in this project?

wE-Learning members, people who want to learn together.

4. On which platform will the application run (is it a mobile/web application)?

Web site.

6. How will the learning progress of the users be tracked/measured?

Users will solve quizzes.

7. How will the application deal with the different learning styles of the users?

Users can choose their own paths.

8. Will the application provide an online experience only- or will there be sessions of coming together physically and learning (seminars etc.)? Is there any geographical constraint?

Implementation will be done for online. Users can set up meetings if they wish to.

9. Who can join the system?

Users who are over 18.

10. Will there be an approval mechanism for people who want to join the learning topic groups/learning subpages?

This is to be decided by the creator/owner of the learning topic. They might choose to have a public or private group/subpage.

11. What are the main differences between the public and private learning topic groups/ learning subpages?

The public learning subpages are editable by all members of the application. The private ones require an approval mechanism.

12. A. Will there be an approval mechanism for people who want to become a member? B. Will there be an approval mechanism for people who want to join the learning subpages?

A.No B.Yes, for private subpages only?

13. A. Who will approve the applications for people who want to become a member? B. Who will approve the applications for members who want to join the private subpages?

A. Admins will be responsible for this. B. The subpage creator/owner?

14. What will be the criteria for approval for people who want to become a member?

A short bio, a list of interests and subjects they like to learn about, recommendations from existing members, a description of the motivation of that person will be asked and evaluated.

15. What will be the criteria for approval for people who want to join a private subpage?

This will be determined by the owner/ creator of the subpage. They might request to see some level of knowledge or may ask for a description of the motivation of that person etc.

16. Can the subpage creator/owner turn other members into owners as well?

Yes.

17. How can people can register after the approval?

A mail address, name, surname, a user name, and a password will be required for creating an account.

18. How can users find available learning topics?

There will be a search function in the app for the learning topic subpages and also a recommendation system that displays similar learning topics.

19. How can users find available learning topics?

There will be a search function in the app for the learning topic subpages and also a recommendation system that displays similar learning topics.

20. How can users create learning topics? Is there an approval process

If the topic does not already exist they may create it (What happens with various names of the same topic? Is there a limitation? Will this process be approved by the admin?).

21. What type of information will be visible to others in the profile of the member?

- user name
- interested topics of interest
- areas of expertise

- total hours devoted on the application
- total amount of votes(likes) received on the published learning materials/contents
- recent activity

22. What will be the contents of the "my profile" section?

- account information
- votes(likes) accumulated
- · comments written and received

23. How will the misinformation be prevented? How will the process of adding learning materials be verified?

The materials on the public subpages will not be verified but as there is a voting system and ability to comment, other users might downvote and comment. There might be a flagging system and if there is a wrong information other users might report this with the flags. Admins can remove misinformation contents. The private pages should be opened by people who have considerable amount of knowledge about that topic; as the owner of the page they can remove misinformation contents.

24. What will happen in case of misconduct, abuse, or disagreement?

There will be a complain button to pass the issue to people who will make an investigation and will give a final decision.

25. What will be the sections in the app that users can navigate?

- How it works
- FAO
- Learning subpages (search, recommended lists, newly added...)
- Join
- MyProfile

26. Does the app have a friendship/following mechanism among profiles?

Yes.

Requirements:

1. Membership and Registration:

1.1 Authenticated users shall be able to add resources to the platform. Members, who are real people, form the community.
1.2 Guest users can monitor all of the learning subpages and their contents.
1.3 Guests shall be able to search for learning topics.
1.4 Guests shall not be able to see the members of the learning topic groups.
1.5 Guests shall not be able to add resources to the platform.
1.6 Guests shall not be able to create new learning topic subpages.
1.7 Guests shall see registration advice to the application.
1.8 In order to be authenticated, users shall follow a sign-up process.
1.9 For Sign-up process, users shall provide:
- Valid email address and password
- Username
- First name
- Last name
- Mobile phone number.
- A short bio
- Location

- Picture is an optional field.
- 1.10 Members shall receive a verification email after registration.
- 1.11 System shall have an approval pending process which means everyone can join the community after the profile is approved by the admin.
- 1.12 Members shall be able to log in by email and password.
- 1.13 Users shall flag any behavior they consider disturbing
- 1.14 Admins shall be able to remove users from system.
- 1.15 Application shall keep personal data properly in accordance with KVKK

2. Administration of Platform:

- 2.1 Administrator user shall view and modify information for all registered users, all poste material on learning subpages created by users, view activities of other users.
- 2.2 Admin, as a superuser, shall get a notification, in order to decide on removing any posted material on learning subpages, if certain amount of people have flagged it as misinformation.
- 2.3 Admin shall remove a user from the community, in case of illegal activity repeated by her/him.
- 2.4 Admins shall be able to manually add a user in case there is a problem with her/his account.
- 2.5 Admins shall be able to solve the software related problems.
- 2.6 Admins shall be able to see all the private details of each user.

3. Features of System:

3.1 Platform shall be a web application having frontend and backend.

3.2 Learning Subpage Creation and Posting Material on these pages

- 3.2.1 Users shall create new learning subpages.
- 3.2.2 Users shall post material on learning subpages.
- 3.2.3 Posted material shall be of any kind:videos, animations, texts, documents, images etc.
- 3.2.4 Users shall be able to edit their posts
- 3.2.5 Users shall be able to delete their posts
- 3.2.6 Users shall be removed from system if they get flagged 10 times for misinformation.

3.3 Search

- 3.3.1 Users shall be able to search and find learning topics by a keyword, the result shall consist of relevant subpages, expert members on topics related to the keyword.
- 3.3.2 The search function shall not work case sensitive.
- 3.3.3 Users shall be able to filter the search result by providing filter areas like language of the information, date of creation of subpages.

3.4 Profile Management and Friendship

- 3.4.1 Members shall be able to follow each other.
- 3.4.2 Members shall be able to see their following and follower members.
- 3.4.3 Members shall have a page, on which their contribution and membership to learning subpages can be found.
- 3.4.4 Members shall be able to see the contributions of their following friends.
- 3.4.5 Members shall be able to see the subpages that might be interesting to them based on their profiles.
- 3.4.6 Members shall be able to send messages to each other via the application.
- 3.4.7 Members shall be able to send emails to each other via the application.
- 3.4.8 Members shall be able to see each post's reviews and rates.

3.5 Notification

- 3.5.1 System shall send notifications when any new post appear on the subpages that the user is a member of
- 3.5.2 Members shall be notified when their posts get reactions.
- 3.5.3 Members shall be notified when they have new friendship requests.
- 3.5.4 Members shall be notified when they are accepted/rejected to join private subpages.

3.6 Note Taking

- 3.6.1 Users shall be able to take personal notes.
- 3.6.2 The note taking system shall be flexible to allow people with different learning styles to benefit from it.

3.7 Reward and punishment system

- 3.7.1 After an informative post is published on learning subpages, other users can vote the post (like or dislike).
- 3.7.2 Users shall be able to give badges to other users
- 3.7.3 Users shall be able to block other users
- 3.7.4 Owners of the subpage shall be able to select other owners.

3.6 Activity Stream

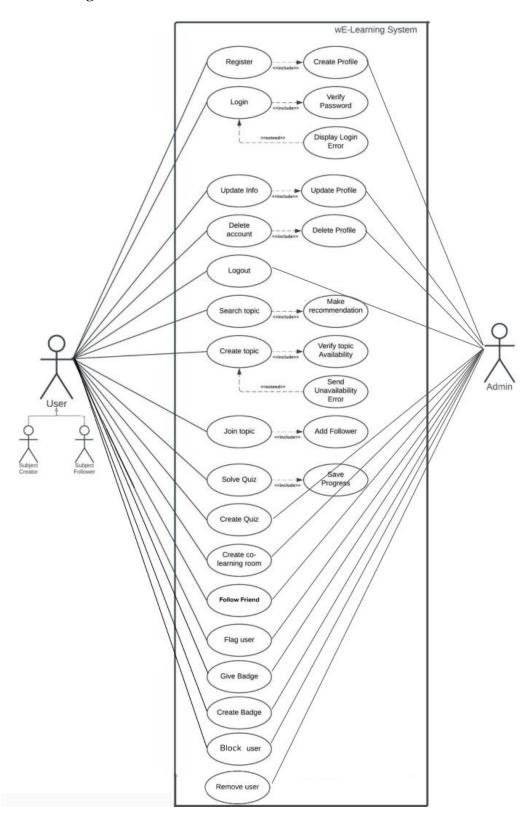
- 3.6.1 Activity stream shall display the recent activity of the users that we follow.
- 3.6.2 Activity stream shall display the recently opened learning pages.

3.7 Public and Private Learning Pages

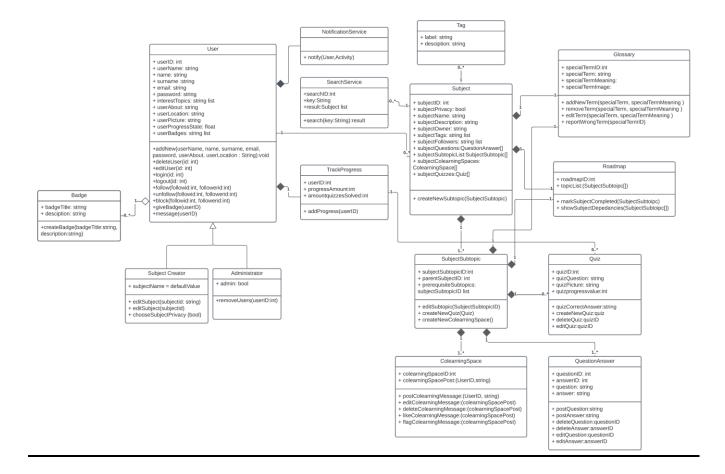
- 3.7.1 Learning pages shall be moderated or not depending if they are public or private pages.
- 3.7.2 All members shall join and add resources to public pages.
- 3.7.3 Creator of space/ moderator shall determine if the pages are public or private.
- 3.7.4 Learning pages shall be able to be switched from public to private and vice-versa.

(c) Software design documents in UML

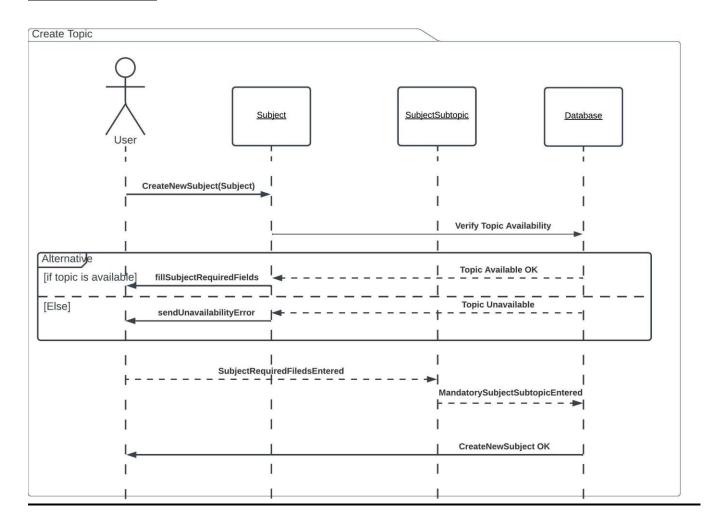
Use case Diagram



Class Diagram



Sequence Diagram



(d) Project plan:

3 milestones are planned for the rest of the semester.

MVP2: First prototype deliverable

Due by April 19, 2022

The basic features below will be included to the project:

- Login, Register
- Profiles
- Followers
- User Search
- User Notifications
- Likes and Dislikes

Deliverables: Demo of the dockerized version of webapp

MVP3: Additional Features to the deliverable (Colearning Page, Q&A Page, Quiz, Track Progress)

Due by May 3, 2022

Features to be added:

- Learning pages and posts
- Colearning Page
- Q&A Page
- Quiz System
- Track Progress

Deliverables: Demo of deployed webapp

Final Product Delivery

Due by May 30, 2022

Final Delivery of Product:

- Dockerized
- Deployed
- Tested

(e) Your GitHub up to date with all relevant information:

https://github.com/betty-gures/SWE573-Spring22/wiki