

CmpE352

March 2019

Group10

Milestone 1: Group Deliverables

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1 Executive Summary

1.1 Project Information

Our app, “YALLP”, is a platform where people can improve their language skills via learning from the materials which users from all around the world have uploaded. For ensuring the quality of uploaded materials, all the materials are analyzed and inspected by experts and natives. Apart from being an open learning platform you can share your knowledge and help other users. The goal of this project is to create an environment to users where they can master a language as if they are living in the country of that language. Any user can contact with a native or an expert to talk or discuss about anything. Since, daily speech is a part of learning, messaging between users is also another benefit “YALLP” provides to its users. We all know the famous lines from Cem Yilmaz “Speak English? I live in English”. That’s exactly what we are aiming for.

1.2 Work Done in the First Part

After the first class, we got together really fast and decided the our first meeting afterwards. Although we lost two members, in the first couple of weeks, we were still full of energy to design and develop our application.

First we met and introduced ourselves. We set our regular meeting time and created our communication plan. We completed most of the documentary part of the project. We started with the project requirements. After we understood the project requirements, we thought about how our application would satisfy these requirements. In this process, we created three personas and scenarios for each of them. Then, we created mockups to model our design. After these example user scenarios, we created the use case diagram which shows what a user could do with our application. Then we started to think about our code design and created the class diagram and sequence diagrams. We sometimes got lost in the diagrams but feedbacks helped a lot in this process.

1.3 What is next?

In the first half of the project, we have learned so much about ourselves and how this project is going to be developed. Each task we have been assigned, we have overcome every difficulty maybe not with ease but determination. From now on we will keep developing “YALLP” and we will never stop improving our skills. Our group has many talents in its members. Some of us have experience with front-end, back-end, maybe both and Android development. However, this does not mean that all the burden will be on the shoulders of those who have experience, teamwork will become important more than anything. We have passion to learn lots of concept no matter how experienced we are.

“YALLP” will be in both web and android platforms. While developing these platforms we will use our previous works to construct a system which agree with agile manifesto. After summer we will start coding our way out. Once we were a group of people and most of us do not know each other. At the end, we are going to be pards who own an unprecedented language learning platform app.

2 List and Status of Deliverables

Name	Delivery Date	Delivery Status
Requirements	Feb 25, 2019	Delivered
User Stories and Mockups	Mar 4, 2019	Delivered
Design - Use Case, Classes, Sequence Diagrams	Mar 18, 2019	Delivered

Table 1: Status of Deliverables

3 Evaluation of the Status of Deliverables and Their Impact on Plan

- **User Scenarios and Mock-ups:** We have created 3 different scenarios and mockups for those scenarios. All the scenarios and mockups were updated after a feedback. We paid attention to distribute them uniform enough over the requirements of the project. We did not put much details into graphical design, kept it simple and, by doing so, similar, to make those designs (for web, ios, android) later in more detail.
- **Requirements:** This is probably the most important document of our project, the one which implicitly and explicitly determines many others' attributes and even existence at all. Expectedly, it has the biggest effort ratio among the documents, there were made several readjustments onto this document and probably some will be made in the near future.
- **Design Diagrams:** We communicated a lot during the design of our Use-case, sequence diagrams and the class diagram. Especially class diagram, which was related to all other diagrams. They all changed drastically after the first feedback, we almost re-designed all of them and all the changes were worth having. Communication was more active during re-design process, which resulted in a more improved general structure and consistency among diagrams.

4 Work-Done by Team Members

Team Member	Contributions
Yavuz Demir	Created some of the requirements. Wrote expert user scenario. Created the group's logo. Taken part in creating the class diagram. Draw two sequence diagrams.
Murat Buldu	Wrote some questions about the project. Wrote the student use scenario. Helped the class diagram and linked the classes each other. Updated the class diagram according to the feedback. Draw one sequence diagram.
Fahri Can Şanlı	Created communication channels. Taken notes in two meetings. Created some of the requirements, added the glossary part. Wrote guest user scenario. Taken part in creating the class diagram and updating it according to feedback. Draw two sequence diagrams and updated them according to feedback.
Hasan Basri Balaban	Generated GitHub repository's issue labels. Searched professional-programming repository. Created guest user scenario's mockups. Taken part in use case diagram process of the milestone. Created a LaTeX template for this report.
Sümeysra Yılmaz	Wrote guest user scenario. Created some of the requirements and updated them according to feedbacks. Draw one sequence diagram. Taken part in use case diagram part of the milestone. Updated class diagram according to feedback.
Kaan Dura	Searched Bootstrap repository for our group project. Taken part in writing expert user scenario. Created some of the requirements. Draw one sequence diagram. Helped the class diagram, added new classes and updated the class diagram according to feedback.
Nevzat Ersoy	Created some of the requirements. Draw one sequence diagram. Created the student user mockups. Taken part in use case diagram part of the milestone.

Melih Demir	Created communication page. Organized some of the requirements. Created expert user scenario's mockups.
Abdurrahman Emre Yılmaz	-

Table 2: Work-done by Each Team member

5 Communication Plan

Audience	Where	Purpose	When
All Team Members	Github	Keeping track of overall progress	Anytime
All Team Members	Whatsapp	Being able to communicate in a fast fashion	Anytime
All Team Members	Slack	Keeping group members up to date	Anytime
All Team Members	Piazza	Reviewing and discussing customer demands	Anytime
All Team Members	Google Drive	Having an easily accessible and editable environment	Anytime
All Team Members	CmpE Student Lounge	Making scheduled plans for the upcoming week	Monday, 7 pm

Table 3: Communication Plan

6 Requirements

6.1 Glossary

- **Account:** A set of information related to application and different for each user
- **Admin User:** A person who is responsible for system sustainability and management in general
- **Annotation:** A feature that allows users to attach some explanatory content to items
- **Availability:** Application must be accessible from different platforms
- **Communication:** Interaction between users inside application by sending message
- **Guest User:** A person who does not have an account and have restricted access to the application
- **Language Dashboard:** A part of profile page which contains names of languages being learned by the user and progress bar
- **Learning Material:** A set of exercises related to a language
- **Profile:** A page specific for each user and has user related information
- **Recommendation:** A suggestion system for users to add new learning materials
- **Reliability:** System must have secure the database and be prepared for any type of incident
- **Scalability:** The ability of the application to handle a growing number of users
- **Search:** A tool to help the users find the relevant contents for given input words in the application
- **Sign In:** Protecting user information and assuring unique username policy
- **Settings:** A set of choices specific to each user
- **Sign In:** Entering to the application by providing correct email and password
- **Sign Up:** Creating an account to be a member of application
- **User:** A person that interacts with the application

6.2 Functional Requirements

6.2.1 User Requirements

- User Types
 - Guest User
 - * Guest users shall be able to sign up anytime in the site.
 - * Guest users shall be able to see a tutorial on each language.
 - * Guest users shall be able to view user profile pages with limited information such as their learning progress, when users started their courses, etc.
 - * Guest users shall be able to see options to sync with LinkedIn, Facebook, etc.
 - * Guest users shall be able to use search mechanism.
 - * Guest users shall not be able to start to learn a language.
 - * Guest users shall not post any comments.
 - * Guest users shall not recommend learning material to be added.
 - Admin User
 - * Admin users shall be able to block or remove any registered user.
 - * Admin users shall be able to view messages between any users.
 - * Admin users shall be able to view any student user's progress.
 - Registered User
 - * Users shall be able to view the progress of the other users that are interacted with through a writing assignment or communication mechanism(message).
 - * Users shall be found on the search bar.
 - * Users shall be able to learn as much new languages as they want.
 - * Users shall post comments to writing materials that they receive from student users.
 - * Users shall be able to annotate writing exercises.
 - * Users shall be able to select a language to learn.
 - * Users shall be able to learn multiple languages simultaneously.
 - * Users shall be able to select another user for assigning the writing exercise to be evaluated.
 - * Users shall be able to use materials which are presented for their current level and materials from previous levels.
 - * Users shall be able to see their completed tasks, number of wrong-correct answers, completed percent of the course.
 - * Users shall be able to search the content they are looking. This can be an expert or a language specific writing on a topic.
 - * Users shall be able to annotate images and texts.
 - * Student users shall be able to post comments to other users.
 - * Student users shall be able to rate other users according to a user's expertise, communication skills and timing.
 - * Users shall be able to a learner and an expert simultaneously.
 - * User can select one of the materials he prefers to do.
 - * User can select the expert who will review his writing exercise.
 - * User can see the notifications after he logs in.
- Authentication
 - Sign Up
 - * The users shall be able to sign up by providing a unique username, an appropriate password and a valid email any time.
 - * The users shall be able to sign up via Facebook.

- Sign In
 - * The users shall be able to sign in anytime by using username-password pair or email-password pair.
 - * The users shall be able to sign in via Facebook if they signed up via Facebook.
- Profile
 - Personal Information
 - * The users shall have a profile page.
 - * The users shall complete the profile by providing necessary informations such as name, surname and contact information. If a user possesses any experience with a language such as native, expert, beginner, etc, this information will also be appeared on the profile page.
 - * The users shall be able to load a profile picture.
 - Language Dashboard
 - * The users shall be able to add new languages to learn.
 - * The users shall be able to check his/her progress on each language he/she started to learn.
 - * The users shall be able to drop any language course they started.
 - Settings
 - * The users shall be able to change notifications preferences.
 - * The users shall be able to change their passwords.
 - * The users shall be able to delete their accounts permanently.
- Communication
 - The users shall be able to send messages to each other if the receiver user accepts the sender’s message.
 - The users shall get notifications when they get a message from other users if they have chosen to get notifications.
 - The users shall be able to block other users if they don’t want to receive messages from them.
- Recommendation and Contribution
 - The users shall be able to add new learning materials to the website/Mobile app.
 - The users who are on advance level or above advance level on the target language shall be able to approve other users’ requests to add new learning materials to target language. If they do not see fit the contents they shall be able to reject contents which are presented.
 - The users shall be able to recommend new learning materials to the website/Mobile app.
 - Multiple users who are on advance level or above advance level on the language that the material presented shall be able to vote for the material.

6.2.2 System Requirements

- Search
 - System shall provide a search algorithm through keywords and show the related content.
 - System shall provide semantic search by an algorithm that selects materials by topic, type, difficulty and scope, and show the related content.
- Recommendation
 - System shall recommend experts, writing contents, learning materials, etc.
- Annotation
 - System shall support the W3C Web Annotation Data Model.
- Account

- System shall have a hide option to allow users to disable sharing functionality of their profile pages.
- Learning Material
 - System shall have learning materials for English, French, German and Spanish languages and if any new language is added, new materials will come along with the addition.
- Notifications
 - System shall send notifications to the user when the user gets a message, a feedback from an expert or a comment about herself/himself.

6.3 Non-Functional Requirements

- Availability
 - The system shall have a Web application that supports:
 - * Chrome browser version 63 and up.
 - * Firefox browser version 58 and up.
 - * Opera browser version 50 and up.
- Security
 - The system shall protect user passwords in a database using SHA-256 encryption.
 - The system shall block sources that send more than 5 requests per second, to prevent DDoS attacks.
 - The system shall check user queries against SQL injection attacks.
 - User account email shall be unique.
 - User account password shall be valid.
- Scalability
 - The system should handle at least 5000 online registered users at any time.
- Reliability
 - The database shall be backed up daily and weekly.
 - The system should have monthly maintenance period of 3 hours.
 - The system shall recover fully from a crash in at most 24 hours.

7 Mockups

7.1 Personas

7.1.1 Bilgehan Işık

Bilgehan is 29 years old and has been working for 5 years for the same company. Although his evaluation results were good at the previous years, he did not get any promotion. When he asked the reason to his superiors, they said he should get good results at English exams. So he decided to learn English and searched for the resources online and then, he found our app (YALP). Now, he uses our app regularly, especially he likes the writing process in our app because writing feedbacks help him a lot for his progress.

7.1.2 Hercule Poirot

Hercule is an English teacher and uses this app to teach English to children. Everyday he checks the app whether there is any new material presented or not. Today, he saw a new reading called "writing essay for dummies". Since he is an advance-level user in English, he can vote for new reading materials on the waiting list to be added. After reviewing the reading, he decided to vote yes for the reading then exits the app.

7.1.3 Süreyya Yıldız

Süreyya is a successful student and she wants to go to the Spain as an exchange student for the next semester. She knows English very well but does not have Spanish proficiency. She cannot afford taking a language course. Therefore, she looks for a free language learning platform. One of her friends, named Bahri Can Yılmaz, is interested in learning different languages and recommended this application to her. She is attracted by the features of the application, especially being able to an expert and a learner at the same time.

7.2 User Stories & Mockups

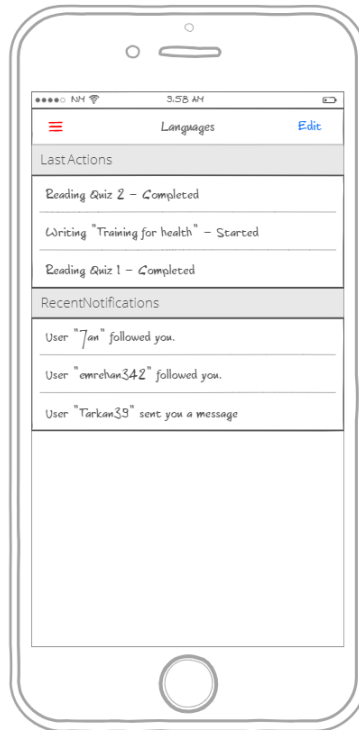
7.2.1 Signed User Story and Mockups

Bilgehan uses YALPP regularly, so he has already an account in our application.

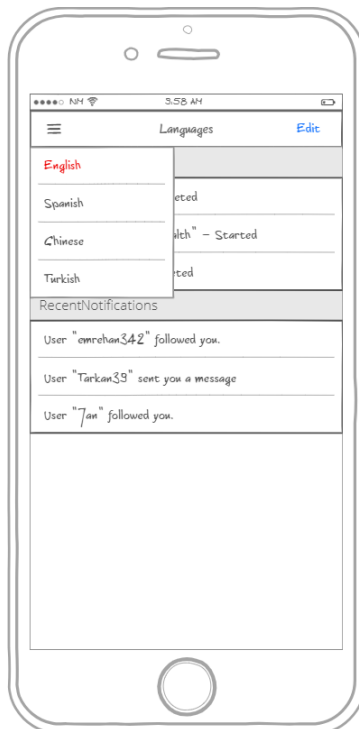
- Bilgehan wanted to make some writing exercises at home. Then he entered to the mobile app and entered his credentials to login.



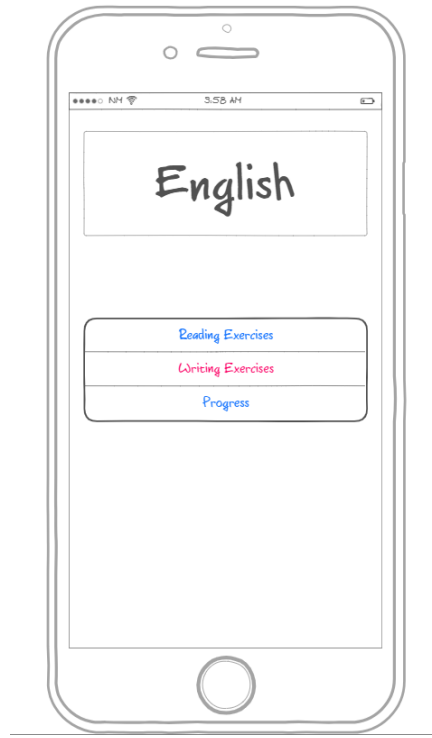
- Home screen was opened. Last actions and recent notifications were shown.



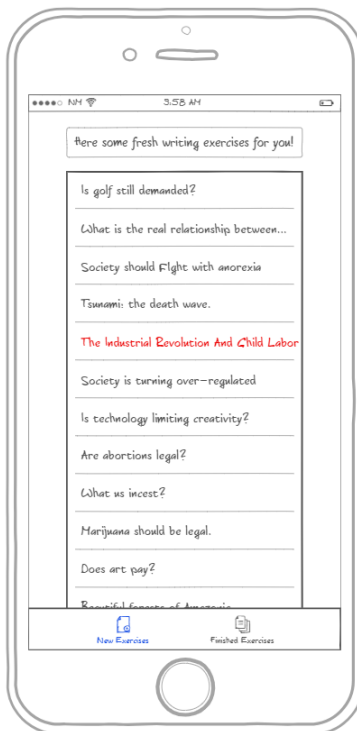
- He selected "English" in the navigation bar.



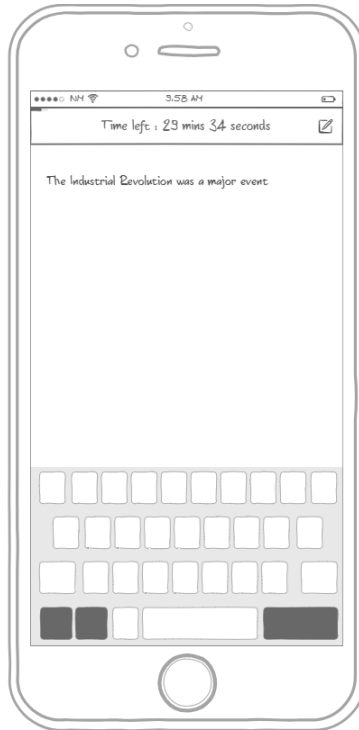
- "Language Home" page was shown. This page included a button list, "Reading Exercises", "Writing Exercises", "Progress".



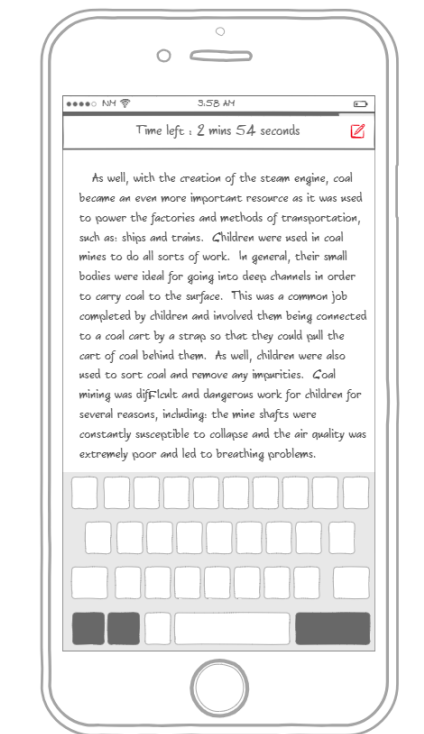
- He pressed "Writing Exercises" button and "Writing Exercises page" was shown.(2 tabs "New Exercise", "Finished Exercises". Default is "New Exercise".) He selected the topic, "The Industrial Revolution And Child Labor".



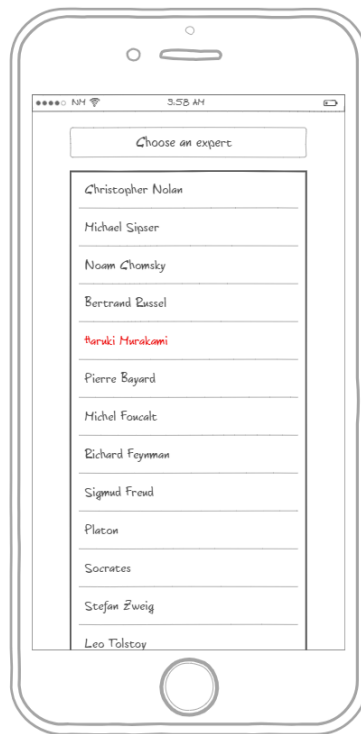
- "Writing Exercise page" was shown and the timer was started for 30 mins.



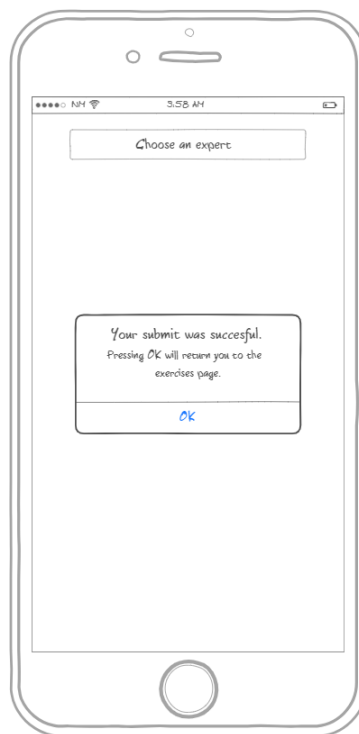
- After he finished the exercise, he submitted the writing. (Submit button was pressed.)



- Expert list was shown and he selected an expert.



- Submit successful message was shown and the application returns to the exercises page.



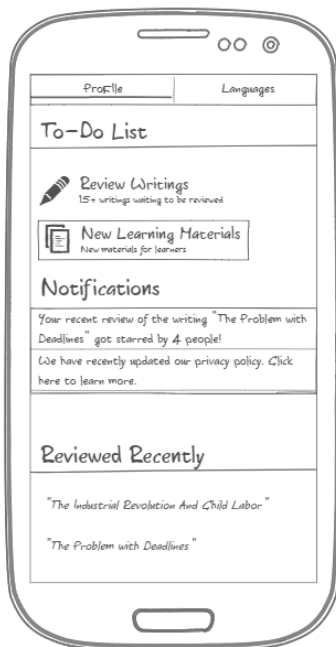
7.2.2 Expert User Story and Mockups

Hercule uses YALPP regularly, so he has already an account in our application.

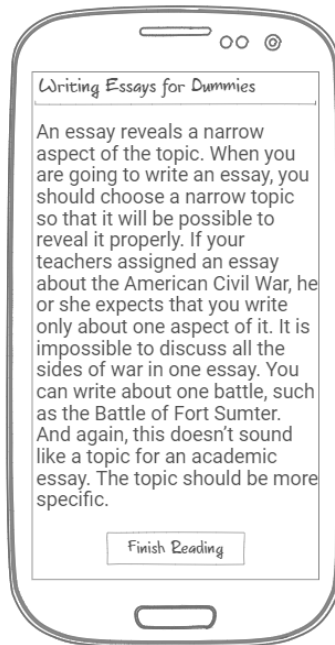
- Hercule enters to the mobile app. He enters his credentials to login.



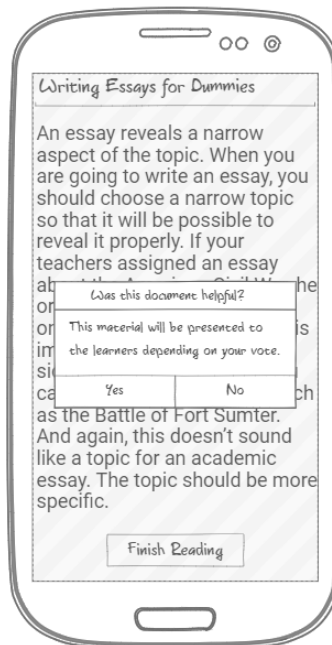
- Expert profile is opened. To-do list, recent notifications and recent reviews are shown. He has some tasks to do, such as reviewing writings and new learning materials. Hercule chooses to review new learning materials.



- A reading material shows up which is uploaded by a learner. He reads the document and a vote pop-up appears.



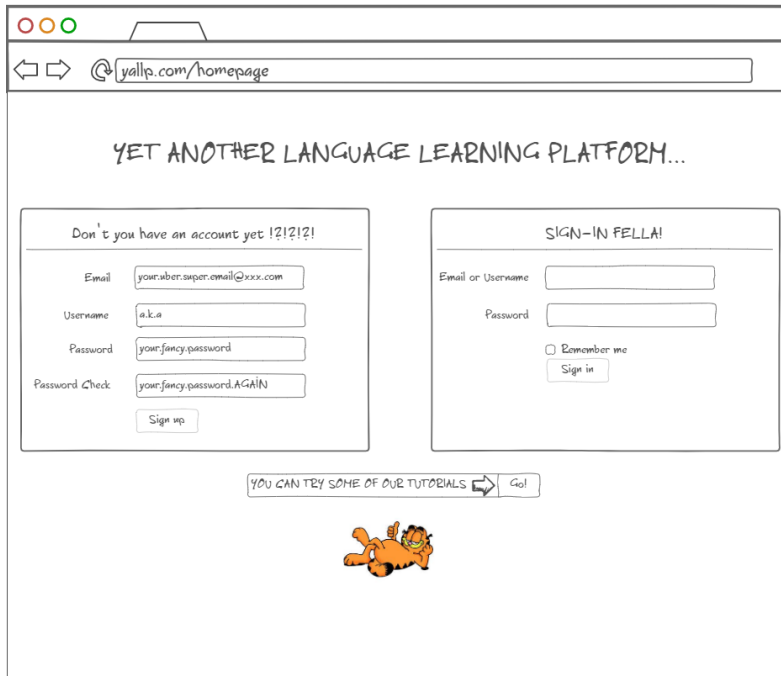
- Hercule votes yes for the new learning material. If sufficient number of experts vote yes, the new material will be served to the learners.



7.2.3 Guest User Story and Mockups

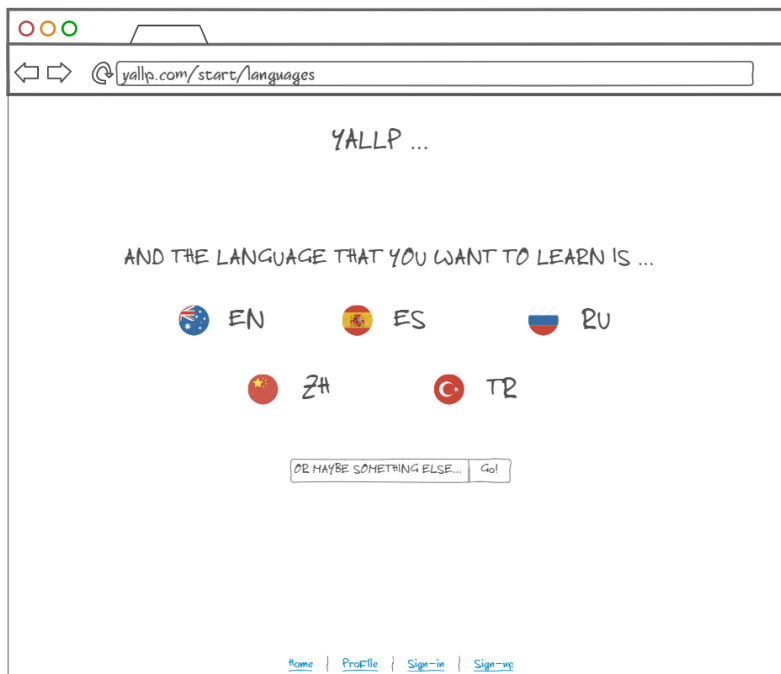
While Süreyya was searching for available online resources, she saw our website in her favorite search engine for the first time and then, opened the website of the platform.

- Home screen was opened. Tutorials, sign-up and sign-in parts were shown. She clicked "Take a Tutorial" button.



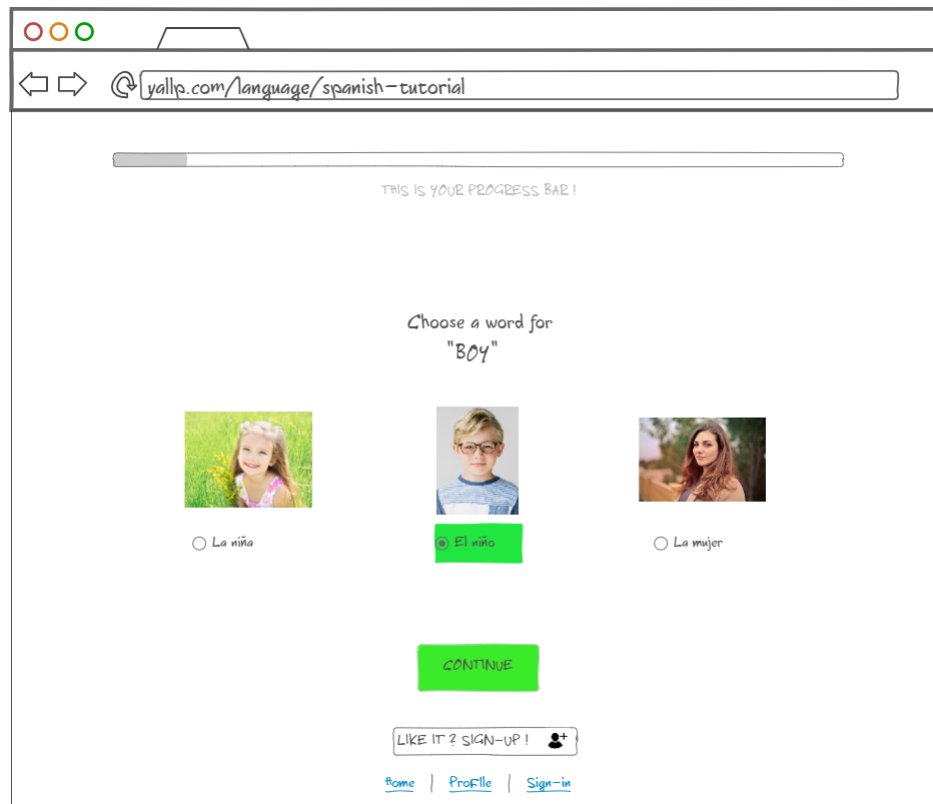
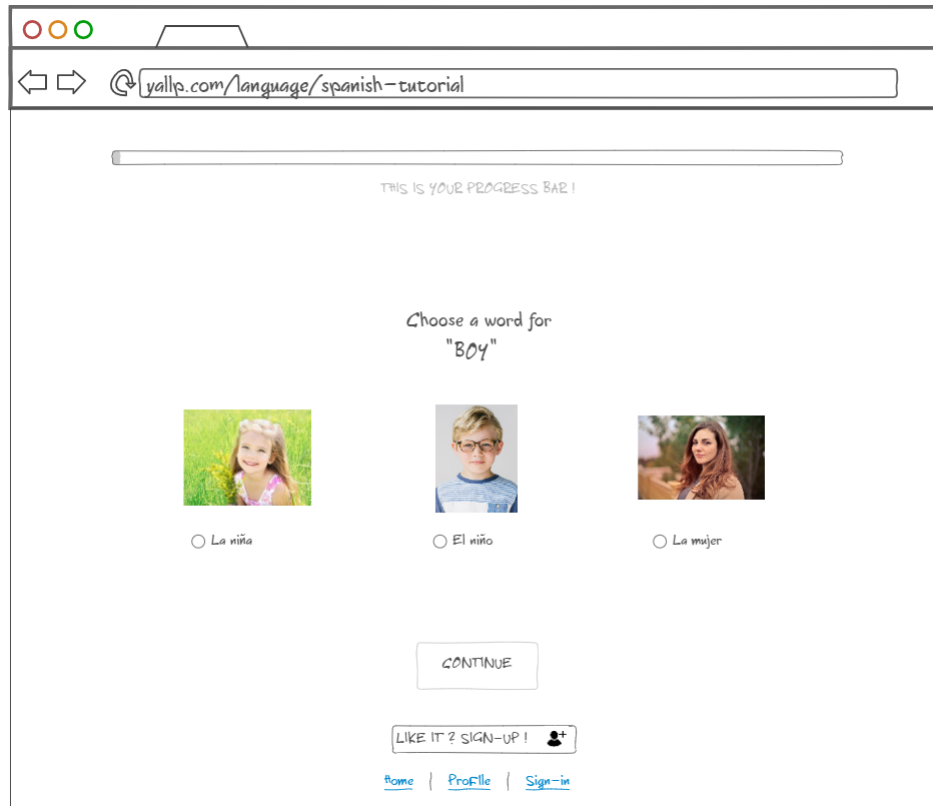
The mockup shows a web browser window with the address bar displaying "yallp.com/homepage". The main heading is "YET ANOTHER LANGUAGE LEARNING PLATFORM...". Below the heading are two registration forms. The left form is titled "Don't you have an account yet !?!?!?" and contains fields for Email (pre-filled with "your.uber.super.email@xxx.com"), Username (pre-filled with "a.k.a"), Password (pre-filled with "your.fancy.password"), and Password Check (pre-filled with "your.fancy.password.AGAIN"), along with a "Sign up" button. The right form is titled "SIGN-IN FELLA!" and contains fields for Email or Username and Password, a "Remember me" checkbox, and a "Sign in" button. Below these forms is a link that says "YOU CAN TRY SOME OF OUR TUTORIALS" with a right-pointing arrow and a "Go!" button. At the bottom center is a cartoon illustration of Garfield the cat.

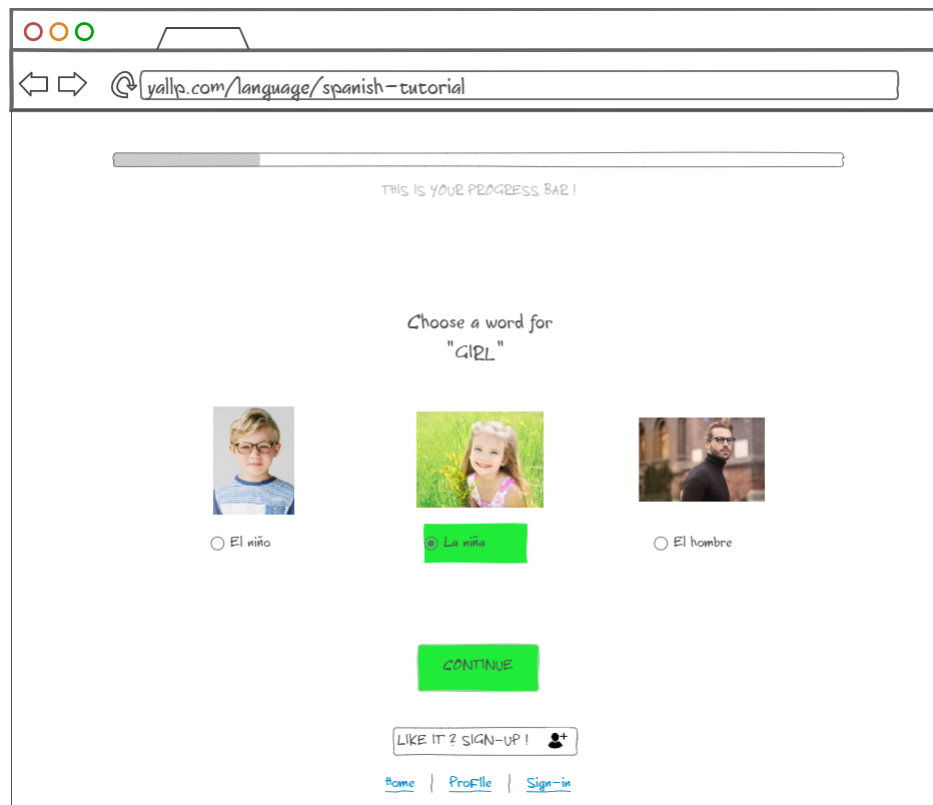
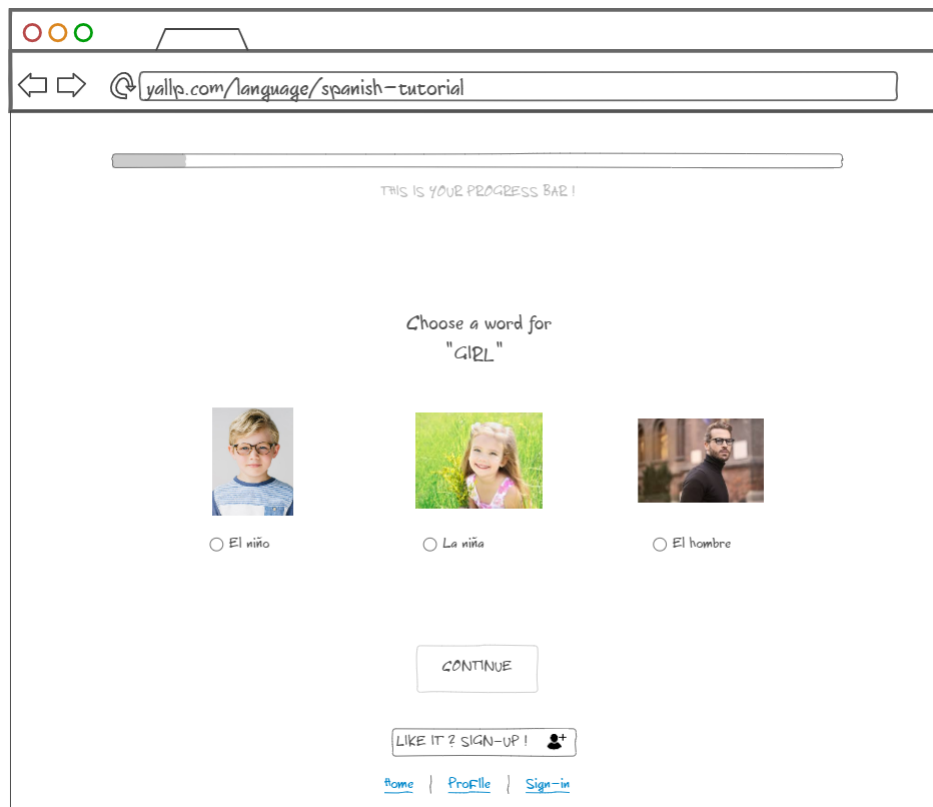
- "Tutorials" page was shown. This page included a list of languages and she selected Spanish.



The mockup shows a web browser window with the address bar displaying "yallp.com/start/languages". The main heading is "YALLP ...". Below the heading is the text "AND THE LANGUAGE THAT YOU WANT TO LEARN IS ...". Underneath this text are five language options, each with a flag icon and a code: "EN" (United Kingdom flag), "ES" (Spain flag), "RU" (Russia flag), "ZH" (China flag), and "TR" (Turkey flag). Below these options is a link that says "OR MAYBE SOMETHING ELSE..." with a right-pointing arrow and a "Go!" button. At the bottom of the page is a navigation bar with links for "Home", "Profile", "Sign-in", and "Sign-up".

- She took the tutorial that includes some exercises.





- She liked it and decided to sign-up and clicked the sign-up button. She signed up with her username, e-mail and password.

FINALLY ! A "WISE" CHOICE :)

Email: sureyya.cok.fena.yildi@yildirdilar.com

Username: expecta.hilaro

Password: *****

Password Check: *****

[Sign up](#)

[Home](#) | [Profile](#) | [Sign-in](#)

- She enrolled to the redirection page. And then she select homepage for redirection.

WHERE DO YOU WANT TO CONTINUE ???

☐ CONTINUE TO MY LAST TUTORIAL

☒ HOME PAGE PLEASE!

☐ I WANT TO LEARN MY LEVEL IN A NEW LANGUAGE!

[Home](#) | [Profile](#) | [Log-out](#)

8 Design

8.1 Use Cases Diagram

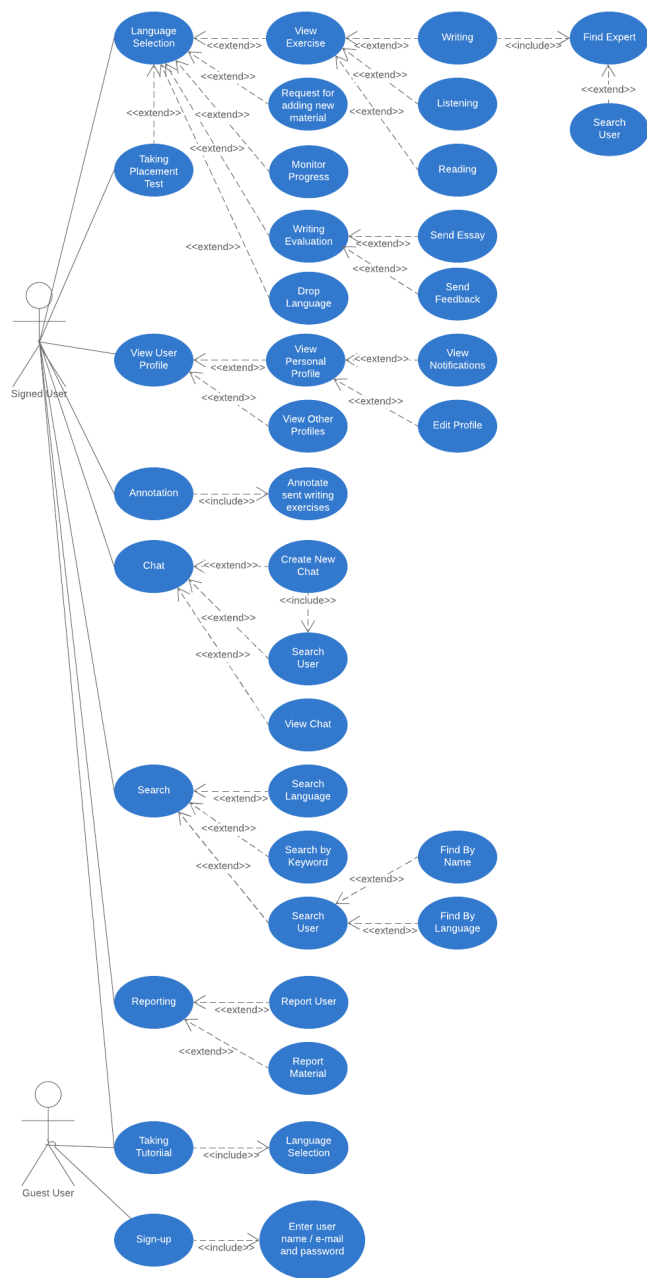


Figure 1: Use Cases Diagram

8.2 Class Diagram

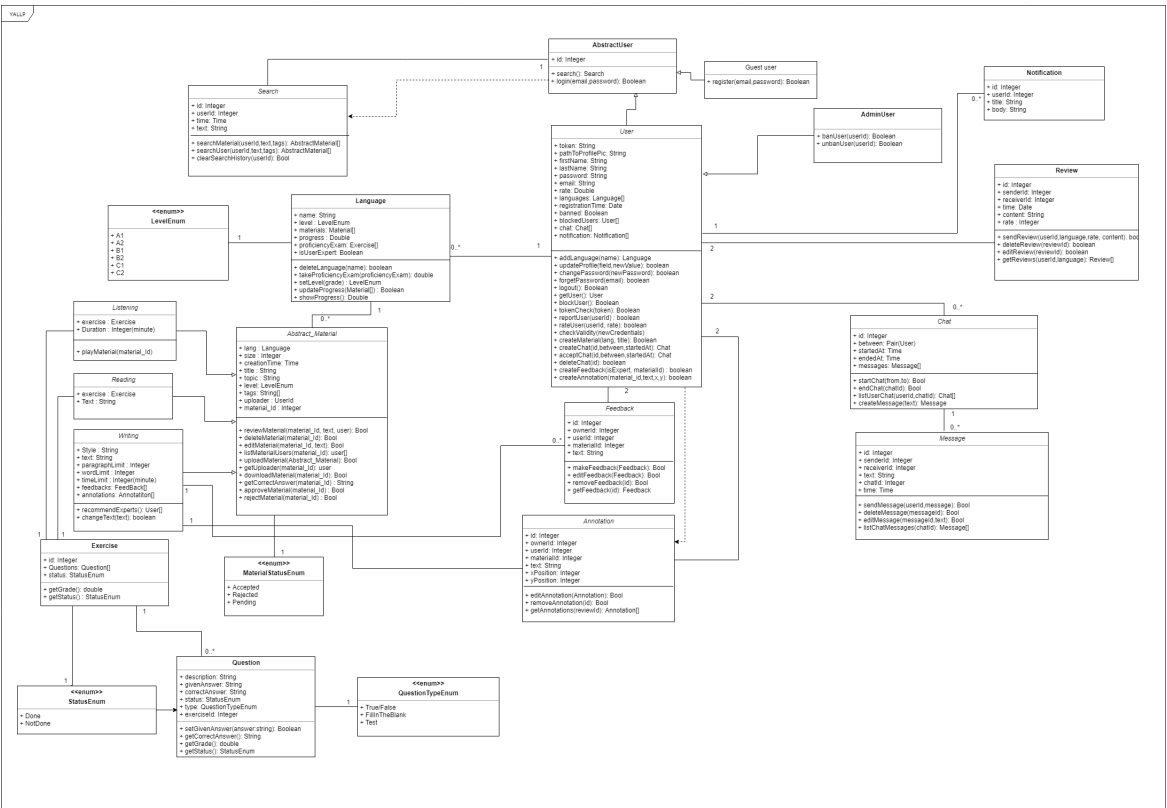


Figure 2: Class Diagram

8.3 Sequence Diagrams

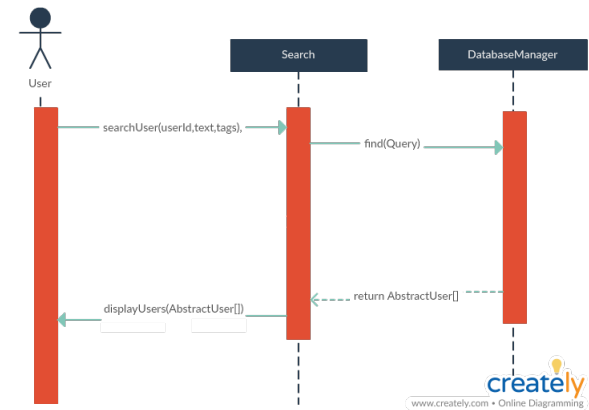


Figure 3: Search User

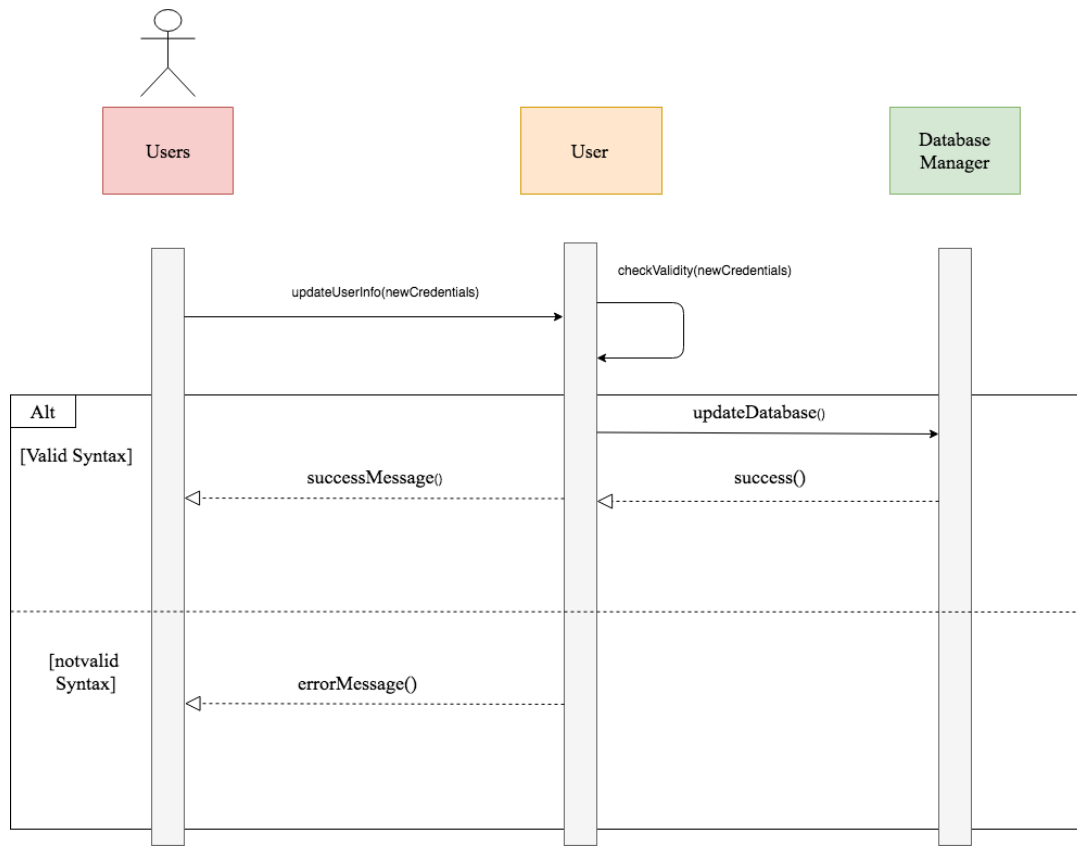


Figure 4: Update User

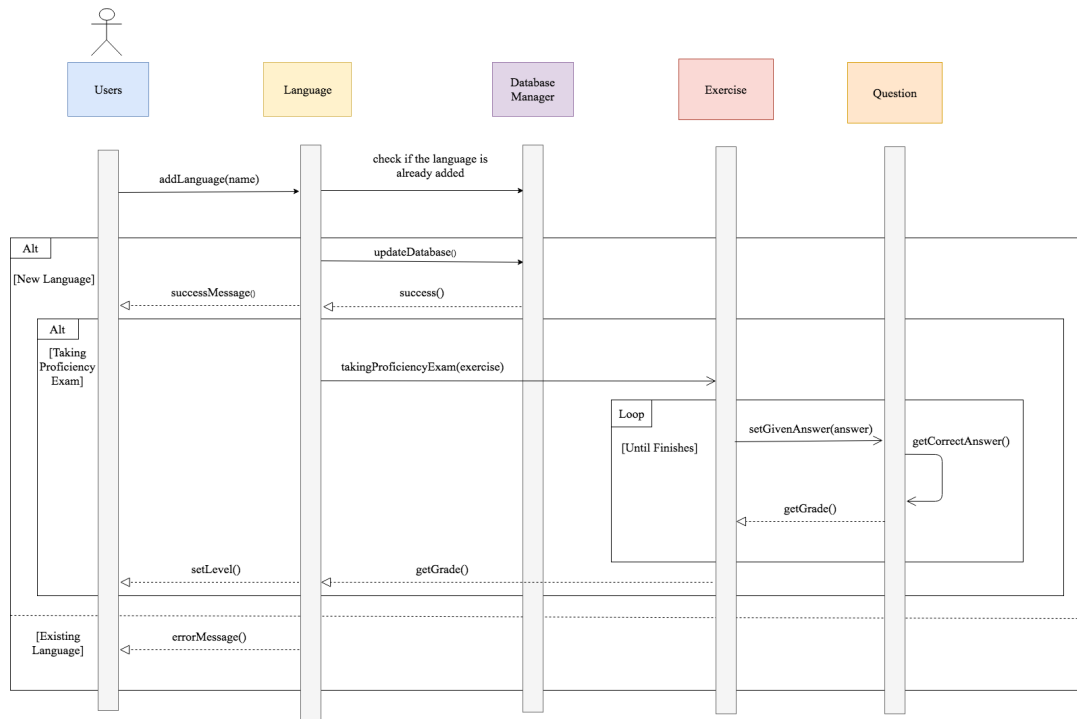


Figure 5: Start Learning a New Language

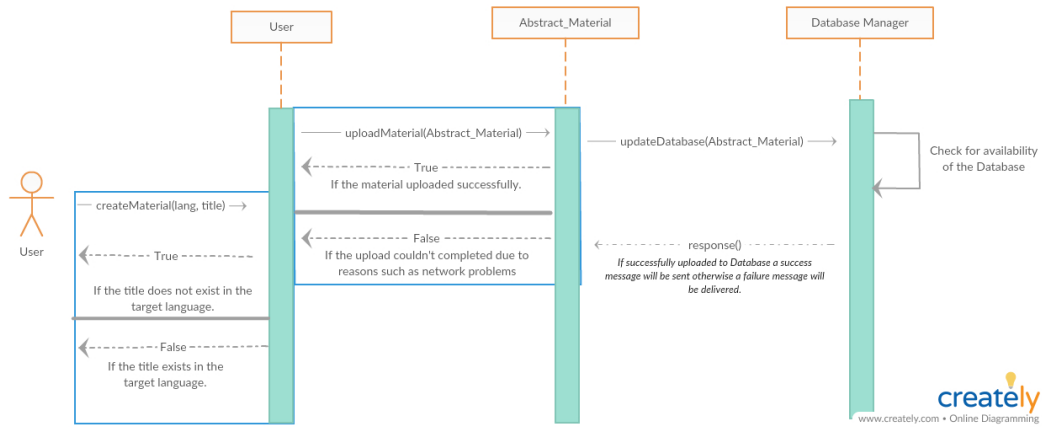


Figure 6: Upload Material

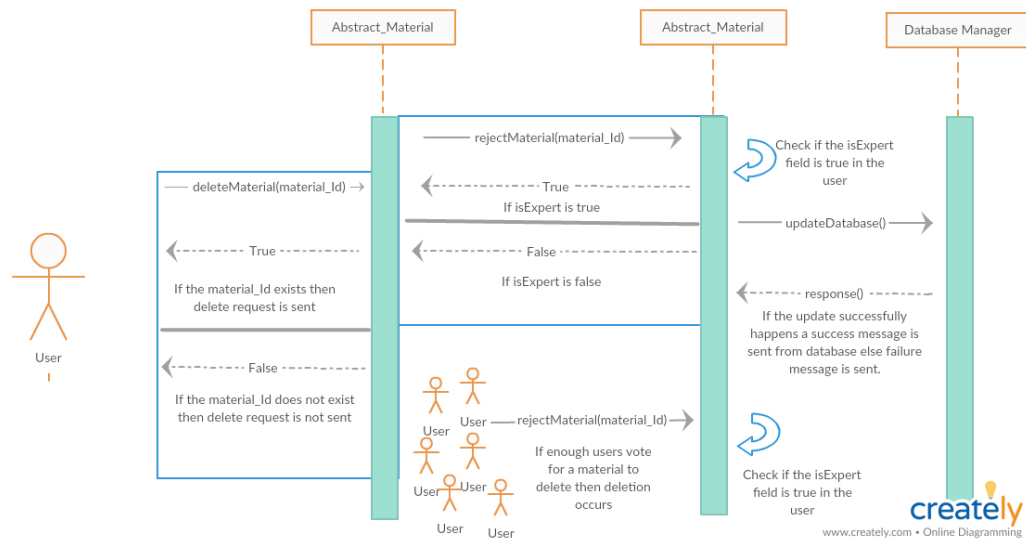


Figure 7: Delete Material

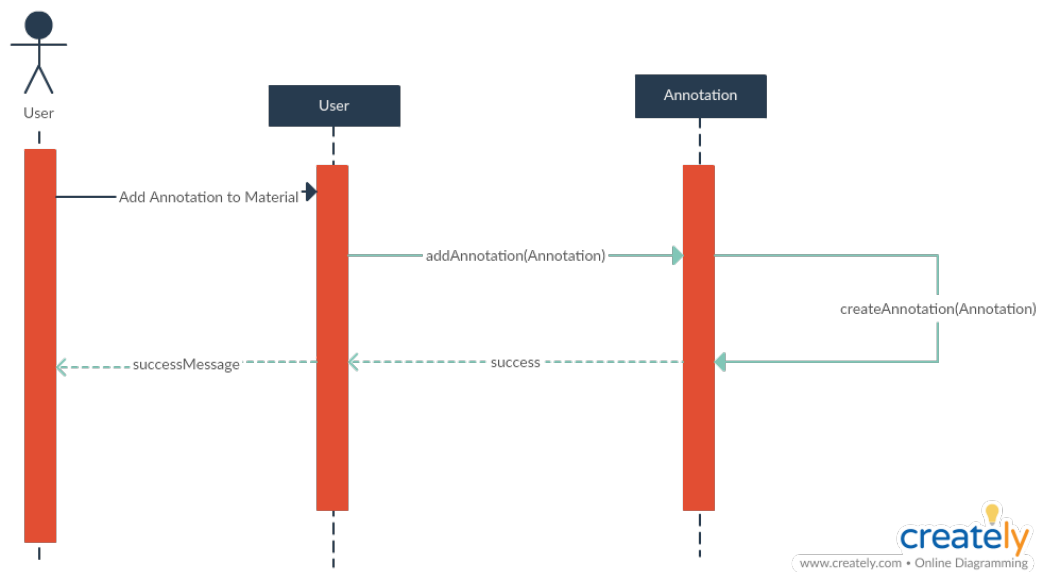


Figure 8: Annotation

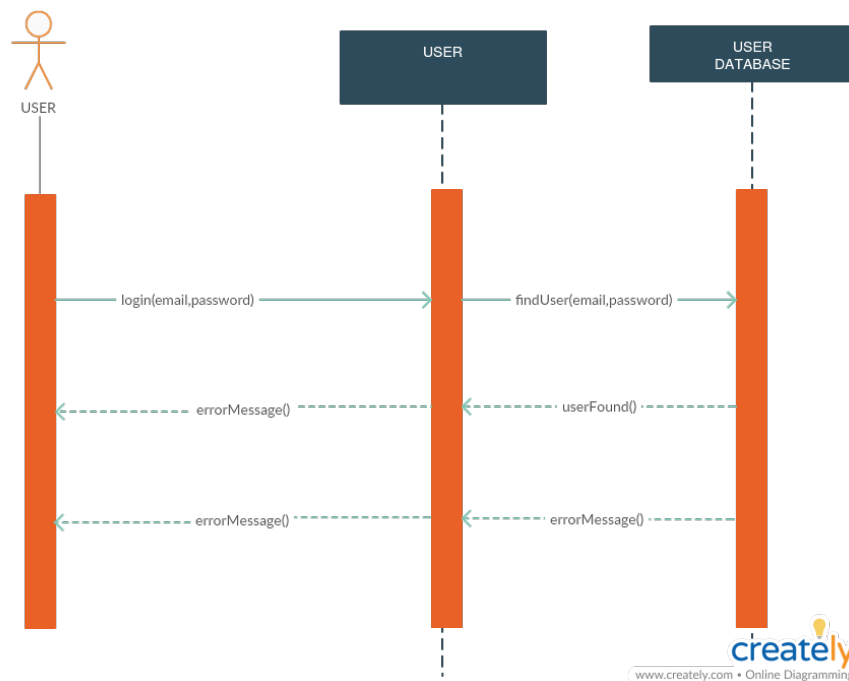


Figure 9: Login

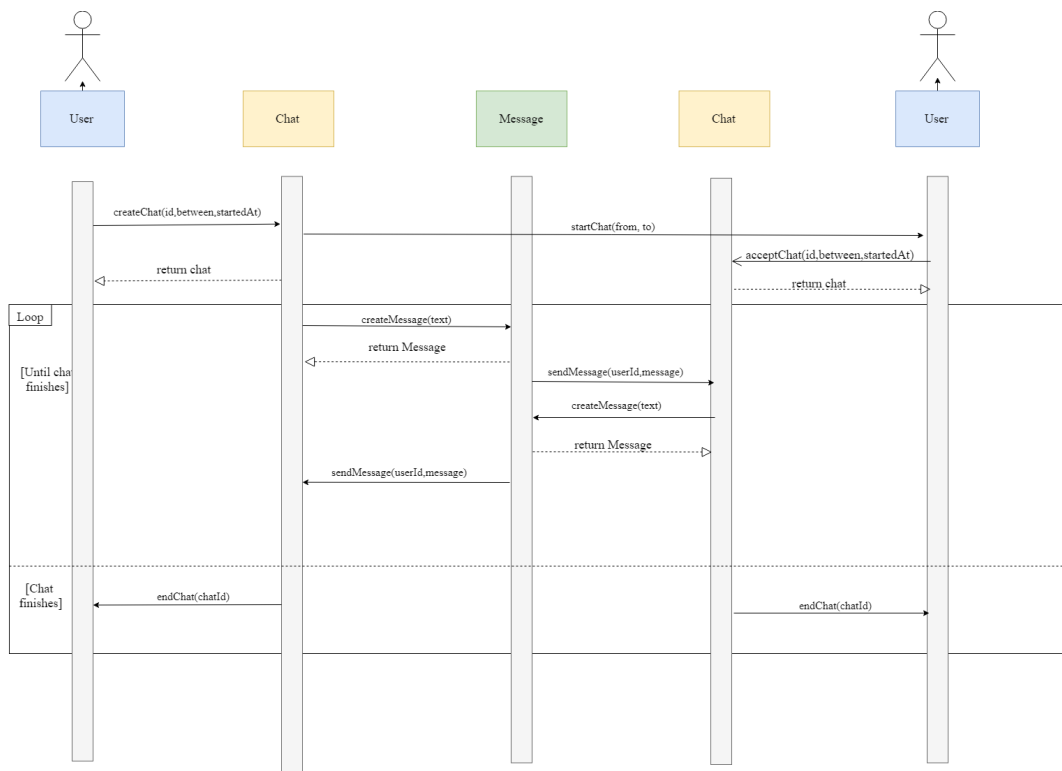


Figure 10: Chat