CmpE 451

Milestone Report 3

Group 12 - BeABee - tag: G12 Customer Milestone 3 v0.9

12.01.2022

Adalet Veyis Turgut
Burakcan Kazım Yeşil
İhsan Gökcül
Kürşat Talha Berk Yamanoğlu
Ahmet Berat Can
Ömer Yılmaz
Refika Kalyoncu
Zahit Batuhan Tongarlak

Report prepared by:

İhsan Gökcül
Adalet Veyis Turgut
Refika Kalyoncu
Ömer Yılmaz
Kürşat Talha Berk Yamanoğlu
Zahit Batuhan Tongarlak

Subgroups:

Android
İhsan Gökcül
Kürşat Talha Berk Yamanoğlu
Refika Kalyoncu

Backend
Adalet Veyis Turgut
Burakcan Kazım Yeşil

Frontend
Zahit Batuhan Tongarlak
Ömer Yılmaz
Ahmet Berat Can

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Executive Summary

Status of deliverables

Login page	done
register page	done
reset password page	done
goals page	done
subgoals page	done
entities page	failed
resources page	done in frontend/ failed in android
group goal page	done
join/leave group goal	done
members and assigness page	done
calendar page	done in frontend / failed in backend
marketplace page	done
notifications	failed
feed page	done
home page	failed
profile page	done
follow system	done
user search page	done in android / failed in frontend
goal search page	done
analytics page	done
wikidata integration	done
activity stream integration	done
CI-CD	done
Deployment	done

Status of all Requirements

Note: C stands for Completed, N stands for Not Completed. First term is the status of the backend team, the middle term is the status of the Android team, and the last term is the status of the frontend team about the requirement.
For example C/N/ N means that the backend team completed, the Android team did not complete, and the Frontend team did not complete.

	Backend	Android	Frontend
1 Functional Requirements			
1.1 User Requirements			
1.1.1 Guests			
1.1.1.1 Guests shall enter their e-mail, name, surname, username and a password in order to sign up.	C	C	C
1.1.1.2 Guests should be able to sign up using their Google accounts	N	N	N
1.1.1.3 Guests shall be able to search for users by their username.	C	C	N
1.1.1.4 Guests shall be able to search for public goals using the search functionality mentioned (1.2.2).	C	C	C
1.1.2 Login			
1.1.2.1 Users shall be able to login using their credentials.	C	C	C
1.1.2.2 Users should be able to login using their Google accounts.	N	N	N

1.1.2.3 Users shall be able to reset their passwords in case of forgetting. Confirmation mail should be used in this process.	C		
1.1.3 Users			
1.1.3.1 Users shall be able to add their goals which contains a title, a description and subgoal(s).	C	C	C
1.1.3.2 Users shall be able to rate their efforts towards their tasks and routines after deadline.	C	C	N
1.1.3.3 Users shall be able to describe the practices that support these goals under resources section	C	C	C
1.1.3.4 Users shall be able to view and assess their progress using analytics section.	C	C	C
1.1.3.4.1 Users should be able to filter these analytics with respect to time.	C	N	N
1.1.3.5 Users shall be able to add the related resources to their goals.	C	N	C
1.1.3.6 Users shall be able to modify their entities, goals, subgoals.	C	C	C
1.1.3.6.1 Users shall be able to modify titles.	C	C	C
1.1.3.6.2 Users shall be able to modify descriptions.	C	C	C

1.1.3.7 Users shall be able to connect entities and subgoals of a goal to other entities and subgoals of that same goal.	C	C	C
1.1.3.8 Users shall be able to tag goals and items with semantic tags.	C	C	C
1.1.3.9 Users shall be able to search goals in marketplace.	C	C	C
1.1.3.10 Users shall be able to add goals that came out of the search to themselves.	C	C	
1.1.3.11 Users shall be able to delete goals.	C	C	C
1.1.3.12 Users should be able to mute and enable notifications.	N	N	N
1.1.3.13 Users shall be able to see the items of the other users they are following in their feed.	C	C	C
1.1.3.14 Users shall be able to add entities.	C	C	C
1.1.3.14.1 They shall be able to add standalone entities.	C	C	C
1.1.3.14.2 They shall be able to add entities under other items.	C	C	C
1.1.3.15 Users shall be able to search entities.	N	N	N
1.1.3.16 Users should be able to mute or enable notifications.	N	N	N
1.1.3.17 Users shall be able to give feedback about their goals / subgoals.	C	C	C

1.1.4 Groups			
1.1.4.1 Users shall be able to invite others using the invitation code (token).	C	C	C
1.1.4.2 Users shall be able to join others' goals using invitation code (token).	C	C	C
1.1.4.3 Members of the groups shall be able to rate their efforts towards entities after completing (or maybe failing to complete) them.	N		
1.1.4.4 Members of the groups shall be able to describe the practices that support this group goal under resources section.	N		
1.1.4.5 Members of the groups shall be able to view and assess their progress using analytics section.	N		
1.1.4.6 Members of the groups shall be able to add the related resources to group goal.	C	C	C
1.1.4.7 Members of the groups shall be able to modify the entities or subgoals.	C	C	C
1.1.4.8 Members of the groups shall be able to tag items with semantic tags.	C	C	C
1.1.5 Interaction Between Users			

1.1.5.1 Users shall be able to visit others' personal page if their visibility is set to public, and see their public goals and analytics.	N		
1.1.5.2 Users shall be able to follow other users.	C	C	C
1.1.6 User Interface			
1.1.6.1 Users shall be able to track their progress over time. They should see their weekly and monthly completion rate.	C	N	
1.1.6.2 Users shall be able to see their analytics related to their goals and effort expended on these goals.	C	C	C
1.2 System Requirements			
1.2.1 Goals / Subgoals			
1.2.1.1 The system shall provide resources section under goals / subgoals. This section should takes text, photo or question-answer as input.	C	N	C
1.2.1.2 The system shall not allow guests to be group members.	C	C	C
1.2.2 Searching			
1.2.2.1 The system shall support semantic search, which provides users to find semantically similar goals.	C	C	N

1.2.2.2 The system shall show the popular goals to users and guests.	C	C	C
1.2.2.3 The system shall supply usage of tags while searching.	C	C	C
1.2.3 Notifications			
1.2.3.1 The system shall send notifications.	N	N	N
1.2.3.2 The system shall notify users regarding development with respect to a plan or others' in case of collaborative contexts.	N	N	N
1.2.3.3 The system shall notify users 1 hour before the start time of their tasks and routines.	N	N	N
1.2.3.4 The system should notify users about users they follow.	N	N	N
1.2.3.4.1 These notifications should be about their new goals, feedbacks, entities.	N	N	N
1.2.4 Analytics			
1.2.4.1 The system shall provide analytics about activities those have common lifetimes.	C	C	C
1.2.4.2 The system shall provide analytics about related activities.	N	N	N

1.2.4.3 The system shall provide feedback button after deadline of items.	-	C	N
1.2.5 Profile Management			
1.2.5.1 The system shall let users to view others' and their goals.	C	C	C
1.2.6 Questions / Reflections			
1.2.6.1 The system shall let users to set reminders for questions.	N	N	N
1.2.6.2 The system shall let users to mark questions as resolved.	C	C	C
1.2.7 Login / Account Management			
1.2.7.1 The system should use confirmation mail upon password resetting.	C	C	C
2 Non-Functional Requirements			
2.1 Standarts			
2.1.1 The system shall use the W3C Activity Stream Standart 2.0 for subscriptions and notifications.	C	C	C
2.1.2 The system shall support semantic tags and these semantic tags should be supported with wikidata.org	C	C	N
2.2 Security			

2.2.1 User passwords shall be encrypted before storing in database using md5 or better hashing algorithms.	C	-	-
2.2.2 The System shall use HTTPS protocol.	N		
2.3 Portability			
2.3.1 The system should support modern web browsers.	-		
2.3.1.1 Chrome version >= 89	-	-	C
2.3.1.2 Opera version >= 75	-	-	
2.3.1.3 Safari version >= 14	-	-	
2.3.1.4 Firefox version >= 85	-	-	
2.3.4.5 Edge version >= 89	-	-	
2.3.2 Android application should support mid-tier mobile phones.	-	C	-
2.3.2.1 Android version >= 21	-	C	-
2.3.2.2 Free storage >= 1 GB	-	C	-
2.3.2.3 RAM >= 4 GB	-	C	-
2.4 Privacy			
2.4.1 Users should accept Privacy Policy and Terms Of Use when they sign up.	C	C	C
2.4.2 The System shall protect the user data under KVKK and GDPR rules.	C	C	C

Final release notes

- User Profile added
    - Search for other users added
    - User follow/unfollow features added

- Feed page added
    - Followed users activity can be seen on feed page
    - By clicking the items the related pages can be visited

- Marketplace added
    - Goals/Group Goals can be published/republished(updated)/unpublished in the Marketplace
    - Tags to Goals added
        - Can add/remove tags to/from Goals/GroupGoals
    - Search for Goals in the Marketplace is added
        - Can search using exact match in the Title/Description/Tags of the Goal
        - Can search related Goals using Wikidata and tags

- Privacy Policy and Terms&Conditions added
    - Users now have to accept these to sign-up

- Deadline feature is removed from Goals/GroupGoals/Subgoals, but remain untouched at Tasks/Routines

Describe the changes your team has planned/implemented to improve the development process based on previous milestone reflections and how they impacted your process

- After encountering a few miscommunication problems between backend and client sides, we started discussing the endpoints and backend flow more in detail during the team meetings and it has helped us implement the new features with less miscommunication problems.
- After seeing that the new changes or bug fixes in the backend side were taking too much time to take effect, our backend team added CI/CD to the project and our development process got much faster.
- After discussing with our client at the first customer presentation, we received that the goal structure was unclear and hard to follow while traversing the hierarchy. So we changed the structure and changed the ui design for better understandability.
- After the feedback we received at the second customer presentation, we decided to remove the deadline feature from the Goals/Subgoals, because it was corrupting the idea of the project.

All these changes and enhancements, taught us how to work as a team as well as how to act while working with a customer and their changing requests. We changed the Goal/Subgoal/Entities structure 2 times, and removed the deadline feature showing that we were able to tear down what we have done so far to provide a better quality product. We have produced many bugs in our application but also we have solved most of them as you can see from the GitHub repo issues/prs, showing that we are not perfect but we are willing to work tirelessly until we end up with the product that we believe is good enough.

Final project evaluations

We are happy and proud that we managed to implement most of the requirements until the Final milestone. There are a couple missing requirements on some of the subteams that you can see in the requirements section. And in the implemented parts we encountered some bugs and issues, for example on the android team the reset password page was implemented but during the merge to the master branch somehow we lost that feature and didn't have time to fix it because it was last minute. So to reflect we can say that, on a project like this, time management is important, and finishing the implementation of new features way before the milestone deadline and using the remaining time to resolve issues and bugs would be so useful. Other reflections about the project and our performance on it as well as the lessons learned can be found below.

LESSONS LEARNED

- **Time Management**

  Time management is important. The Project has strict deadlines which we had to obey, during this time we observed that managing time and spreading task over time instead of doing it in a short while and at the last moment is significant

- **Friendliness**

  During the Project, as team members we all had different responsibilities other than the Project, so being tolerant of our teammates' mistakes, minor delays that do not delay the Project is crucial.

- **Communication**

  We were divided into 3 sub teams: Backend, android, frontend. Each sub team's communication was necessary to divide tasks and prevent conflicts. Also, the communication between sub teams were so important in order to report any probable server or any other errors. Making decisions together also enabled us to build on ideas and develop them.

- **Git**

  Even though we separated all tasks to prevent conflicts we still had times that we had conflicts. The help of git was the key for managing during these times, we met up online to resolve these conflicts with the contributing members. We were also able to keep track of sub teams works very easily

- **Code review**

  When someone else checks our code it becomes much easier to detect errors or possible errors and prevents any bigger problem after merging or during the progress. So, team members should always review each other codes'

Summary of Work

Backend

Burakcan Kazım Yeşil	Review of Backend Application Pull Requests of Veyis.
	Deploying and Maintaining backend and frontend applications as Docker containers.
	Write Unittests for group goals and entities.
	Implementing User Follow Feature.
	Write new linking logic for entities.
	Tag functionality for group goals
	Fixed bugs of the backend applications.
	Informing frontend teams about the changes in our API and helped them with implementing it to frontend and android applications.
	Maintaining and merging branches of the backend.

Adalet Veyis Turgut	Integrating wikidata support
	Implementing marketplace feature
	Implementing search system
	Integrating activity stream support
	Generating terms of use and privacy policy

	Removing deadlines after feedback taken from milestone 2 demo
	Reviewing Burakcan's pull requests
	Created mock data for demo and dump
	Writing all of API documentation, status of deliverables of this report
	Provided link to associated code in Github in scenario based part of this report
	Written references part of this report
	Created database dump from AWS server
	Writing unittests of new features
	Keeping Swagger up to date

Android

Kürşat Talha Berk Yamanoğlu	Change top bar for adding search icon and profile icons.
	Change Goal/Subgoal/Entity relations, modals in the android to fit with the changes in the backend.
	Open issues for backend bugs.
	Implement a custom view for marketplace
	Implement redirection from feeds page.
	Add Terms&Conditions/Privacy Agreement to signup page
	Review Ihsan's work and help him
	Review Refika's work and help her
	Review PR's and help merging them
	Implement 'add/remove tags'
	Remove deadline feature from android for goals/subgoals
	Contribute to the scenario creation for presentation
	Present the scenario.

Refika Kalyoncu	Viewing Publish Goals feature
	Viewing details of a published goal feature
	Downloading published goal feature
	Publishing a goal feature
	Unpublishing and Republishing a goal feature
	Marketplace home and Search pages
	Adding name and surname field to login and signin pages
	Reporting bugs and possible data needs to backend
	Reviewing Berk's codes
	Reviewing Ihsan's codes
	Reseting Password feature
	Creating uni tests for the implemented features
	Revised APIs and give feedback about Internal Server errors to backend team
	Attended android team meetings
	Attended lab meeting and group meetings
	Helped preparation of the Scenario for the Customer Meeting.

İhsan Gökcül	Attended all group and customer meetings
	Implemented user search for android.
	Implemented User follow/unfollow feature for android.
	Implemented User profile page for android
	Implemented Feed page for android app.
	Reported bugs to backend.
	Implemented Unittests for my parts.
	Tried to do the things that Berk taught us in Android meetings.
	Attended meetings with Android team
	Merged and organized the milestone report 3.

	Created pull request for my work.
	Created necessary issues for my work.
	Reviewed android team pull requests.
	Helped to create the scenario for customer presentation.
	Added User interface and links for Android to the Milestone Report.
	Added UML diagrams and project plan to the Milestone Report.

Frontend

Ömer Yılmaz	Create Profile page for users
	Creating unittests for goal, group goal pages
	Bugfix displaying group goals problem
	Create publish, republish, unpublish buttons for the goal
	Bugfix for Edit Goal page is not loading
	Prototype pages for Goal, subgoal and entities.
	Adding scenario based questions to milestone report
	Creating System Manuals.
	Creating User Manuals.
	Reviewing others PR and merge them

Zahit Batuhan Tongarlak	Updated Link Entity Page
	Updated Edit Entity Page
	Updated Add Entity Pages
	Created Adding and removing Tag mechanism
	Created Linking System from start
	Updated View Entity Page
	Updated Goal Page
	Created the Feed

	Removed the deadline feature of the goals
	Adding the complete button for entities.
	Fixing the linking system
	Created a bug issues for backend team
	Fixing entity and sub-goal structure
	Worked with Berat to create the analytics page
	Resolved some frontend bugs
	Implemented unittests
	Adding status of all requirements
	Created the user manual for frontend M3
	Attended group meetings

Ahmet Berat Can	Implement Analytics Page
	Update layout and alignment of Goals page.
	Reviewing others PR and merge them
	Implemented unit tests
	Implement reset password page backend connection
	Implemented terms and conditions page
	Implemented privacy policy page
	Implemented search page

Scenario Based Questions

Note: Code of the features are separated into multiple files in the backend. We will give links to the controller classes, you can reach other files from that controller file since we call the service classes from controller classes and call mapper, repository, model classes from the service classer.

We have divided scenario to multiple parts:

1. *After a typical deadline driven high-stress episode, Monica decides that she wants to start living a healthier life. She realizes that this requires learning new skills. Moreover, she will need to practice these skills.*
   First of all, Monica should register and login our website.

   Register
   Fronted: 2021SpringGroup12/Register.tsx at master · bounswe/2021SpringGroup12 (github.com)
   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/SignUpActivity.java
   Backend:https://github.com/bounswe/2021SpringGroup12/tree/master/application/backend/src/main/java/cmpe451/group12/beabee/login
   Login
   Fronted: 2021SpringGroup12/Login.tsx at master · bounswe/2021SpringGroup12 (github.com)
   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/LoginActivity.java
   Backend:https://github.com/bounswe/2021SpringGroup12/tree/master/application/backend/src/main/java/cmpe451/group12/beabee/login

2. *She is also keenly aware of the motivational and informational benefits of co-learning.*
   In order to get benefit of co-learning Monica can use group goals or search prototypes in market places depending on her choice. To use group goal Monica can create a group goal and share its token to her friends or can join her friends' group goal using their shared token. Also, after searching prototypes, she can copy the prototype of a goal to her goal space.
   Group Goal
   Fronted: 2021SpringGroup12/GoalPage.tsx at master · bounswe/2021SpringGroup12 (github.com)
   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/Home2Fragment.java
   Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/goalspace/controller/GroupGoalController.java
   Search Prototype
   Fronted: 2021SpringGroup12/SearchPage.tsx at master · bounswe/2021SpringGroup12 (github.com)
   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/Home4_2Fragment.java
   Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/b

ackend/src/main/java/cmpe451/group12/beabee/goalspace/controller/PrototypeController.java

3. *She wants to use your application to create a learning path for healthy living. She decides that among the critical skills are mindfulness, preparing affordable and healthy well-balanced meals, regular reading, and exercise.*
   She can create a goal, add subgoals, create entities, and link entities to subgoals.
   Goal/Subgoal
   Fronted: The goal and subgoal page code is the same with group goal. See 2.
   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/HomeFragment.java
   Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/goalspace/controller/GoalController.java
   https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/goalspace/controller/SubgoalController.java
   Entity
   Fronted: 2021SpringGroup12/EntityPage.tsx at master · bounswe/2021SpringGroup12 (github.com)
   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/entities/TaskFragment.java
   https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/entities/RoutineFragment.java
   https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/entities/QuestionFragment.java
   https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/entities/ReflectionFragment.java

   Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/goalspace/controller/EntitiController.java

4. *She also realizes that she needs to learn many things about what healthy living means, such as the impact of fermented foods on microbiome, the types of exercises and their benefits. For example, towards healthy meals she wants to learn how to prepare fermented food like sourdough bread and fermented vegetables.*
   She can use semantic search for similar goals. In these goals she can check reflection entities. Please see 2 and 3.
5. *She is very social and a prolific writer who loves to share information and socializes with like-minded persons.*
   The communication with others is quite limited in our application. However, the others can follow Monica and see what she does in the feed page in activity streams

standards.

Profile Page

Fronted: 2021SpringGroup12/ProfilePage.tsx at master · bounswe/2021SpringGroup12 (github.com)

Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/userprofile/UserProfileFragment.java

Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/common/model/Users.java

Feed Page

Fronted: 2021SpringGroup12/Feed.tsx at master · bounswe/2021SpringGroup12 (github.com)

Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/feed/FeedFragment.java

Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/goalspace/controller/ActivityStreamController.java

6. *Most importantly she needs to track her progress towards a successful outcome.* She can rate the goal after completing it. Also, she can check the analytics page for the outcomes.

   Analytics Page

   Fronted: 2021SpringGroup12/Dashboard.tsx at master · bounswe/2021SpringGroup12 (github.com)

   Android:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/Home3Fragment.java

   Backend:https://github.com/bounswe/2021SpringGroup12/blob/master/application/backend/src/main/java/cmpe451/group12/beabee/goalspace/controller/UserController.java#L27

W3C Activity Streams 2.0 standard and Wikidata

We integrated Wikidata support by adding *tags* and *hiddentags* fields to the *goal* class. Only *tags* field is shown to the users and *hiddentags* field is used for semantically connecting similar tags.

When users add tags to their goals, the system fetches ids of those tags using wikidata API. Using those ids, the system fetches ids of related tags. Then finally names of those related tags are fetched using their ids. Related tags are inserted into the *hiddentags* field of the goal. So, goals that have at least one tag in common in their *tag* or *hiddentags* fields become similar goals. As a result, this is how we provided the semantically similar goals feature.

Also, when a search is made, the system fetches related tags of the search query and filters goals with respect to the search query and related tags.

We integrated the activity stream to our feed page. We logged the following user activities to the database: creating a goal, completing a goal, creating a group goal, following a user, publishing a goal, republishing a goal, unpublishing a goal, deleting a goal, deleting a group goal, leaving a group goal, joining a group goal, copying a goal from marketplace, adding a resource to a goal. When users fetched their feed page, we showed them their activities and activities of the users they follow in a reverse chronological order.
Context of our response json is "https://www.w3.org/ns/activitystreams". Type of the activity is one of the following: Add, Create, Delete, Follow, Join, Leave, Remove, Update. Actor is the user who did the activity. It has type and name fields. If applicable Objectschema and object fields corresponds to the object field in Activity Stream 2.0 standard. Again, if applicable, target and origin fields correspond to the target and origin fields of Activity Stream 2.0 standard json structure. They have type and name fields if the corresponding activity type has those fields in standard. In the summary field, we concatenate actor, target-object and activity type fields. This is what the end users see. In the application users can open the page of corresponding target-object by clicking on the activity summary.
To give a concrete example: Consider user Zuhal has followed user Mete. Actor is Zuhal and its type is PERSON. Target is Mete and type is PERSON, again, name is Mete and url is the profile page of Mete. Summary is "Zuhal followed Mete", concatenation of actor, activity type and object. When users click this activity, profile page of the Mete is opened.
Another example would be the following: Berk copied a goal from the marketplace. Actor is Berk, and the object is the goal from the marketplace. When users click this activity, the goal in the marketplace page will be opened.

API CALL:

[GET] http://3.144.201.198:8085/v2/activitystreams/{user_id}
You can try this endpoint by setting user id to long values like 5,7,9.
examples:
http://3.144.201.198:8085/v2/activitystreams/7
http://3.144.201.198:8085/v2/activitystreams/8

API

Swagger URL: Beabee API

1. ENDPOINTS

1.1. User Credentials

Functionality	URL	Method	Parameters	Responses
Retrieve user details by username	/v2/users/{username}	GET	username(path)*	UserCredentialsGetDTO
Send a password reset token to user's email address	/v2/users/forgot/{email_or_username}	GET	email(path)* or username(path)*	MessageResponse
Reset a user's password	/v2/users/reset/{token}	POST	token(path)*, UserCredentialsPostDTO*	MessageResponse

Table 1: User credentials endpoints

1.2. Login

Functionality	URL	Method	Parameters	Responses
Logs in the user	/v2/login	POST	username*, email*, password*	AuthenticationResponse
Signs the user up	/v2/signup	POST	UserCredentialsPostDTO	MessageResponse

Table 2: Login endpoints

1.3. Goals

Functionality	URL	Method	Parameters	Responses
Get the info of a goal	/v2/goals/{goal_id}	GET	goal_id(path)*	GoalGetDTO
Update the info of a goal	/v2/goals	PUT	GoalGetDTO*	MessageResponse
Create a goal for the given user	/v2/goals/{user_id}	POST	GoalPostDTO*	MessageResponse
Delete the goal with the given id	/v2/goals/{goal_id}	DELETE	goal_id(path)*	MessageResponse
Complete a goal	/v2/goals/complete/{goal_id}	PUT	goal_id(path)*	MessageResponse

Get the analytics of a goal	/v2/goals/analytics/{goal_id}	GET	goal_id(path)*	GoalAnalyticsDTO
Get all goals the given user	/v2/goals/of_user/{user_id}	GET	user_id(path)*	List<GoalDTOShort>
Create a subgoal under the given goal	/v2/goals/subgoal	POST	goal_id(path)*, SubgoalPostDTO*	MessageResponse
Add tags to a goal	/v2/goals/{goal_id}/tag	PUT	[string]*	MessageResponse
Remove tags from a goal	/v2/goals/{goal_id}/removetag/{tag}	PUT	goal_id(path)*, tag(path)*	MessageResponse
Search goals with exact match in title, description and tag fields	/v2/goals/search	GET	query(path)*, user_id(path)	List<GoalDTOShort>
Search goals using tags semantically	/v2/goals/search/{tag}	GET	tag(path)*	List<GoalDTOShort>
Get subgoals of a goal	/v2/goals/subgoal/{goal_id}	GET	goal_id(path)*	List<SubgoalGetDTO>
Copy a prototype to the given user	/v2/goals/copy_prototype/{user_id}/{prototype_id}	POST	user_id(path)*, prototype_id(path)*	MessageResponse

Table 3: Goal endpoints

1.4. Subgoals

Functionality	URL	Method	Parameters	Responses
Get the info of a subgoal	/v2/subgoals/{id}	GET	id(path)*	SubgoalGetDTO
Update the info of a subgoal	/v2/subgoals	PUT	SubgoalPostDTO*	MessageResponse
Create a subgoal under the given subgoal	/v2/subgoals	POST	SubgoalPostDTO*	MessageResponse

Delete the goal with the given id	/v2/subgoals/{id}	DELETE	id(path)*	MessageResponse
Get all subgoals of the given user	/v2/subgoals/of_user/{user_id}	GET	user_id(path)*	List<SubgoalGetDTO>
Complete the given subgoal	/v2/subgoals/complete/{subgoal_id}/{rating}	PUT	subgoal_id(path)*, rating*	MessageResponse
Extend the given subgoal	/v2/subgoals/extend/{subgoal_id}	PUT	subgoal_id(path)*, DateDTO*	MessageResponse
Get analytics of the given subgoal	/v2/subgoals/analytics/{subgoal_id}	GET	subgoal_id(path)*	SubgoalAnalyticsDTO
Revoke the assignment of subgoal to the users	/v2/subgoals/{subgoal_id}/assignees	DELETE	subgoal_id(path)*, List<Long>*	MessageResponse
Assign the subgoal to the users	/v2/subgoals/{subgoal_id}/assignees	POST	subgoal_id(path)*, List<Long>*	MessageResponse

Table 4: Subgoal endpoints

1.5. Entities

Functionality	URL	Method	Parameters	Responses
Create a task	/v2/entities/task	POST	TaskPostDTO	MessageResponse
Update the given task	/v2/entities/task/	PUT	TaskGetDTO	MessageResponse
Get the task with the given id	/v2/entities/task/{id}	GET	id(path)*	TaskGetDTO
Delete the task with the given id	/v2/entities/task/{id}	DELETE	id(path)*	MessageResponse
Create a routine	/v2/entities/routine	POST	RoutinePostDTO	MessageResponse
Update the given routine	/v2/entities/routine/	PUT	RoutineGetDTO	MessageResponse
Get the routine with the given id	/v2/entities/routine/{id}	GET	id(path)*	RoutineGetDTO
Delete the routine with the given id	/v2/entities/routine/{id}	DELETE	id(path)*	MessageResponse

Create a question	/v2/entities/question	POST	QuestionPostDTO	MessageResponse
Update the given question	/v2/entities/question/	PUT	QuestionGetDTO	MessageResponse
Get the question with the given id	/v2/entities/question/{id}	GET	id(path)*	QuestionGetDTO
Delete the question with the given id	/v2/entities/question/{id}	DELETE	id(path)*	MessageResponse
Create a reflection	/v2/entities/reflection	POST	ReflectionPostDTO	MessageResponse
Update the given reflection	/v2/entities/reflection/	PUT	ReflectionGetDTO	MessageResponse
Get the reflection with the given id	/v2/entities/reflection/{id}	GET	id(path)*	ReflectionGetDTO
Delete the reflection with the given id	/v2/entities/reflection/{id}	DELETE	id(path)*	MessageResponse
Get all entities of the goal with the given id including entities of subgoals' and entities of subgoals' of subgoals of the given goal	/v2/entities/goal/{goal_id}	GET	goal_id(path)*	List<EntitiDTOShort>
Get all entities of the groupgoal with the given id including entities of subgoals' and entities of subgoals' of subgoals of the given groupgoal	/v2/entities/groupgoal/{groupgoal_id}	GET	groupgoal_id(path)*	List<EntitiDTOShort>
Get all entities of the given user	/v2/entities/user/{user_id}	GET	user_id(path)*	List<EntitiDTOShort>
Complete the question with the given id	/v2/entities/completequestion/{question_id}	PUT	question_id(path)*	MessageResponse
Complete the reflection with the given id	/v2/entities/completereflection/{reflection_id}	PUT	reflection_id(path)*	MessageResponse

Complete the routine with the given id	/v2/entities/completeroutine/{routine_id}/{rating}	PUT	routine_id(path)*, rating(path)*	MessageResponse
Complete the task with the given id	/v2/entities/completetask/{task_id}/{rating}	PUT	task_id(path)*, rating*	MessageResponse
Rate the interval of the routine with the given id	/v2/entities/rate/{routine_id}/{rating}	PUT	routine_id(path)*, rating(path)*	MessageResponse
Extend the entity with the given id	/v2/entities/extend/{entiti_id}	PUT	entiti_id(path)*, DateDTO*	MessageResponse
Link two entities	/v2/entities/{id}/link	POST	id(path)*, EntityLinkDTO(body)*	MessageResponse
Delete the link between given entities	/v2/entities/{id}/link	DELETE	id(path)*, EntityLinkDTO(body)*	MessageResponse

Table 5: Entity endpoints

1.6. Groupgoals

Functionality	URL	Method	Parameters	Responses
Get the info of a groupgoal	/v2/groupgoals/{groupgoal_id}	GET	goal_id(path)*	GroupGoalGetDto
Update the info of a groupgoal	/v2/groupgoals	PUT	GroupGoalGetDto*	MessageResponse
Create a groupgoal for the given user	/v2/groupgoals/{user_id}	POST	groupGoalPostDTO*	MessageResponse
Delete the groupgoal with the given id	/v2/groupgoals/{groupgoal_id}	DELETE	goal_id(path)*	MessageResponse
Create a subgoal under the group goal with the given id	/v2/groupgoals/subgoal	POST	SubgoalPostDTO*	MessageResponse
Get all group goals created by a user	/v2/groupgoals/created_by/{user_id}	GET	user_id(path)*	List<GroupGoalDTOShort>

Get all group goals a user is a member of	/v2/groupgoals/member_of/{user_id}	GET	user_id(path)*	List<GroupGoalDTOShort>
Generate a new token for the group goal	/v2/groupgoals/{groupgoal_id}/token	POST	groupgoal_id(path)*	MessageResponse
Add a new member to the Group Goal	/v2/groupgoals/{groupgoal_id}/members	PUT	groupgoal_id(path)*, username(path)*	MessageResponse
Join a group goal with token	/v2/groupgoals/{user_id}/join	POST	user_id(path)*, token(path)*	GroupGoalDTOShort
Leave a group goal	/v2/groupgoals/{user_id}/{groupgoal_id}	DELETE	user_id(path)*, groupgoal_id(path)*	MessageResponse
Get subgoals of a group goal	/v2/groupgoals/subgoal/{groupgoal_id}	GET	groupgoal_id(path)*	List<SubgoalGetDTO>
Add tags to a groupgoal	/v2/groupgoals/{groupgoal_id}/tag	PUT	List<String>	MessageResponse
Remove a tag from a groupgoal	/v2/groupgoals/{groupgoal_id}/removetag/{tag}	PUT	groupgoal_id(path)*, tag(path)*	MessageResponse

Table 6: Group goal endpoints

1.7. Resources

Functionality	URL	Method	Parameters	Responses
Get the resource with the given id	/v2/resources/{id}	GET	id(path)*	ResponseEntity<byte[]>
Post a resource under the given entity.	/v2/resources/{entiti_id}	POST	entiti_id(path)*, resource*	ResponseEntity<String>
Delete the resource with the given id	/v2/resources/{id}	DELETE	id(path)*	ResponseEntity<String>

Get all resources of the logged in user	/v2/resources/	GET	None	List<Resource>

Table 7: Resource endpoints

1.8. Users

Functionality	URL	Method	Parameters	Responses
Get the analytics of the user with the given id	/v2/users/analytics/{user_id}	GET	user_id(path)*	UserAnalyticsDTO
Get a user with the given id	/v2/users/get/{id}	GET	id(path)*	UserGetDTO
Search for users	/v2/users/search/{query}	GET	query(path)*	List<UserGetDTO>
Get followers of a user	/v2/users/{userId}/followers	GET	userId(path)*	List<UserGetDTO>
Get followings of a user	/v2/users/{userId}/followings	GET	userId(path)*	List<UserGetDTO>
Follow a user with given id	/v2/users/{userId}/follow/{targetId}	POST	userId(path)*, targetId(path)*	MessageResponse
Unfollow a user with given id	/v2/users/{userId}/unfollow/{targetId}	POST	userId(path)*, targetId(path)*	MessageResponse

Table 8: User endpoints

1.9. Prototypes

Functionality	URL	Method	Parameters	Responses
Get all prototypes	/v2/prototypes/	GET		List<GoalPrototypeDTO>
Get the prototype with given id	/v2/prototypes/{id}	GET	id(path)*	GoalPrototypeDTO
Get the entity prototype with the given id	/v2/prototypes/entiti/{id}	GET	id(path)*	EntityPrototypeDTO
Get the subgoal prototype with the given id	/v2/prototypes/subgoal/{id}	GET	id(path)*	SubgoalPrototypeDTO

Get all prototypes of the user with the given id	/v2/prototypes/user/{user_id}	GET	user_id(path)*	List<GoalPrototypeDTO>
Search goal prototypes with exact match in title description and tag fields	/v2/prototypes/search/	GET	query(path)*	List<GoalPrototypeDTO>
Search goal prototypes semantically using tags	/v2/prototypes/search/{tag}	GET	tag(path)*	List<GoalPrototypeDTO>
Publish a goal in the marketplace	/v2/prototypes/publish/{id}	POST	id(path)*	MessageResponse
Republish a goal to the marketplace	/v2/prototypes/republish/{id}	POST	id(path)*	MessageResponse
Unpublish a goal to remove it from the marketplace	/v2/prototypes/unpublish/{id}	POST	id(path)*	MessageResponse

Table 9: Prototype endpoints

1.10. Activity Stream

Functionality	URL	Method	Parameters	Responses
Get all activities that interest given user	/v2/activitystreams/{userId}	GET	userId(path)*	List<ActivitySchema>

Table 10: Activity stream endpoints

2. MODELS

Name	Fields
ActivitySchema	actor: ActorSchema, context: string, createdAt: date-time, id: long, object: string, objectSchema: ObjectSchema, origin: OriginSchema, summary: string, target: ObjectSchema, type: [ADD, CREATE, DELETE, FOLLOW, JOIN, LEAVE, REMOVE, UPDATE]

ActorSchema	name: string, type: [PERSON]
AuthenticationResponse	jwt: string, message :string, messageType: [SUCCESS, INFO, ERROR], userCredentialsGetDTO: UserCredentialsGetDTO
DateDTO	newDeadline: date-time
EntitiDTOShort	id: long, title: string, description: string, deadline: date-time, entitiType: EntitiType
EntitiType	[TASK, ROUTINE, QUESTION, REFLECTION]
EntitiLinkDTO	childId: long, childType: [ENTITI, SUBGOAL, GOAL, GROUPGOAL]
EntitiPrototypeDTO	id: long, title: string, description: string, referenced_entiti_id: long, entitiType: EntitiType, period: long, child_entities: List<EntitiPrototypeDTOShort>
EntitiPrototypeDTOShort	id: long, title: string, description: string, entitiType: EntitiType
GoalAnalyticsDTO	activeSubgoalCount: long, averageCompletionTimeOfSubgoals: long, bestSubgoal: SubgoalDTOShort, completedSubgoalCount: long, completionTimeInMiliseconds: long, extensionCount: long, finishTime: date-time, goal_id:long, goalsWithCommonLifetime: List<GoalDTOShort>, longestSubgoal: SubgoalDTOShort, rating: double, shortestSubgoal: SubgoalDTOShort, startTime: date-time, status: [ACTIVE, COMPLETED], worstSubgoal: SubgoalDTOShort
GoalDTOShort	id: long,

	title: string, description: string,
GoalGetDTO	id: long, title: string, description: string, user_id: long, createdAt: date-time, completedAt: date-time, linkedEntities: List<EntitiDTOShort> subgoals: List<SubgoalDTOShort>, isDone: boolean, isPublished: boolean, goalType: [GROUPGOAL, GOAL], tags: List<String>
GoalPostDTO	title: string, description: string,
GoalPrototypeDTO	d: long, title: string, description: string, download_count: long, reference_goal_id: long, username: string, entities: List<EntitiPrototypeDTOShort>, subgoals: List<SubgoalPrototypeDTOShort>, tags: List<String>
GroupGoalDTOShort	id: long, title: string, description: string,
GroupGoalGetDTO	id: long, title: string, description: string, deadline: date-time, user_id: long, createdAt: date-time, linkedEntities: List<EntitiDTOShort>, members: List<UserCredentialsGetDTO>, subgoals: List<SubgoalDTOShort>, isDone: boolean goalType: [GROUPGOAL, GOAL], token: string
GroupGoalPostDTO	title: string, description: string, deadline: date-time

MessageResponse	message: string, messageType: [SUCCESS, INFO, ERROR]
ObjectSchema	id: long, name: string, content: string, url: string, type: [GOAL, GROUPGOAL, COPY, UPDATE, ADD, PUBLISH, REPUBLISH, PERSON]
OriginSchema	id: long, name: string, type: [GOAL, GROUPGOAL, COPY, UPDATE, ADD, PUBLISH, REPUBLISH, PERSON]
QuestionGetDTO	id: long, title: string, description: string, goal_id: long, groupgoal_id: long, createdAt: date-time, sublinked_entities: List<EntitiDTOShort>, sublinked_subgoals: List<SubgoalDTOShort>, isDone: boolean entitiType: EntitiType, resources: List<ResourceDTOShort>
QuestionPostDTO	parent_id: long, title: string, description: string, goalId: long, goalType: [GOAL, GROUPGOAL], initialLinkType: [SUBGOAL, GOAL, GROUPGOAL, ENTITY] initialParentId: long
ReflectionGetDTO	id: long, title: string, description: string, goal_id: long, groupgoal_id: long, createdAt: date-time, sublinked_entities: List<EntitiDTOShort>, sublinked_subgoals: List<SubgoalDTOShort>, isDone: boolean entitiType: EntitiType, resources: List<ResourceDTOShort>
ReflectionPostDTO	parent_id: long, title: string, description: string,

	goalId: long, goalType: [GOAL, GROUPGOAL], initialLinkType: [SUBGOAL, GOAL, GROUPGOAL, ENTITY] initialParentId: long
Resource	id: long, name: string, createdAt: date-time, contentType: string, data: byte, size: long, url: string
ResourceDTOShort	id: long, name: string, createdAt: date-time, contentType: string
RoutineGetDTO	iid: long, title: string, description: string, goal_id: long, groupgoal_id: long, createdAt: date-time, sublinked_entities: List<EntitiDTOShort>, sublinked_subgoals: List<SubgoalDTOShort>, isDone: boolean entitiType: EntitiType, resources: List<ResourceDTOShort>, period: long, rating: double, deadline: List<date-time>
RoutinePostDTO	parent_id: long, title: string, description: string, deadline: date-time, goalType: [GOAL, GROUPGOAL], initialLinkType: [SUBGOAL, GOAL, GROUPGOAL, ENTITY] initialParentId: long period: long
SubgoalAnalyticsDTO	activeSubgoalCount: long, averageCompletionTimeOfSubgoals: long, bestSubgoal: SubgoalDTOShort, completedSubgoalCount: long, completionTimeInMiliseconds: long, extensionCount: long, finishTime: date-time, longestSubgoal: SubgoalDTOShort,

	rating: double, shortestSubgoal: SubgoalDTOShort, startTime: date-time, status: [ACTIVE, COMPLETED], subgoal_id: long, worstSubgoal: SubgoalDTOShort
SubgoalDTOShort	id: long, title: string, description: string, deadline: date-time
SubgoalGetDTO	assignees: List<Long>, completedAt: date-time, createdAt: date-time, deadline: date-time, description: string, sublinked_entities: List<EntitiDTOShort>, id: long, isDone: boolean, main_goal_id: long, main_groupgoal_id: long, parent_subgoal_id: long, rating: double, sublinks: List<SubgoalDTOShort>, title: string
SubgoalPostDTO	deadline: date-time, description: string, main_goal_id: long, main_groupgoal_id: long, parent_subgoal_id: long,entities title: string
SubgoalPrototypeDTO	id: long, title: string, description: string, reference_subgoal_id: long child_subgoals: List<SubgoalPrototypeDTOShort>
SubgoalPrototypeDTOShort	id: long, title: string, description: string
TaskGetDTO	id: long, title: string, description: string, deadline: date-time, goal_id: long, groupgoal_id: long,

	createdAt: date-time, sublinks: List<EntitiDTOShort>, subgoal_id: List<SubgoalDTOShort>, isDone: boolean entitiType: EntitiType, rating: double, resources: List<ResourceDTOShort>
TaskPostDTO	parent_id: long, title: string, description: string, deadline: date-time, parentType: [NONE, SUBGOAL, GOAL, GROUPGOAL, ENTITY],
UserAnalyticsDTO	activeGoalCount: long, averageCompletiontimeOfGoalsInMiliseconds: long, averageExtensionCount: long, averageRating: double, bestGoal: GoalDTOShort, completedGoalCount: long longestGoal: GoalDTOShort, shortestGoal: GoalDTOShort, worstGoal: GoalDTOShort
UserCredentialsGetDTO	user_id: long, username: string, password: string, email: string
UserCredentialsPostDTO	username: string, password: string, email: string
UserGetDTO	id: long, followerCount: long, followingCount: long, usercredentials, UserCredentialsGetDTO

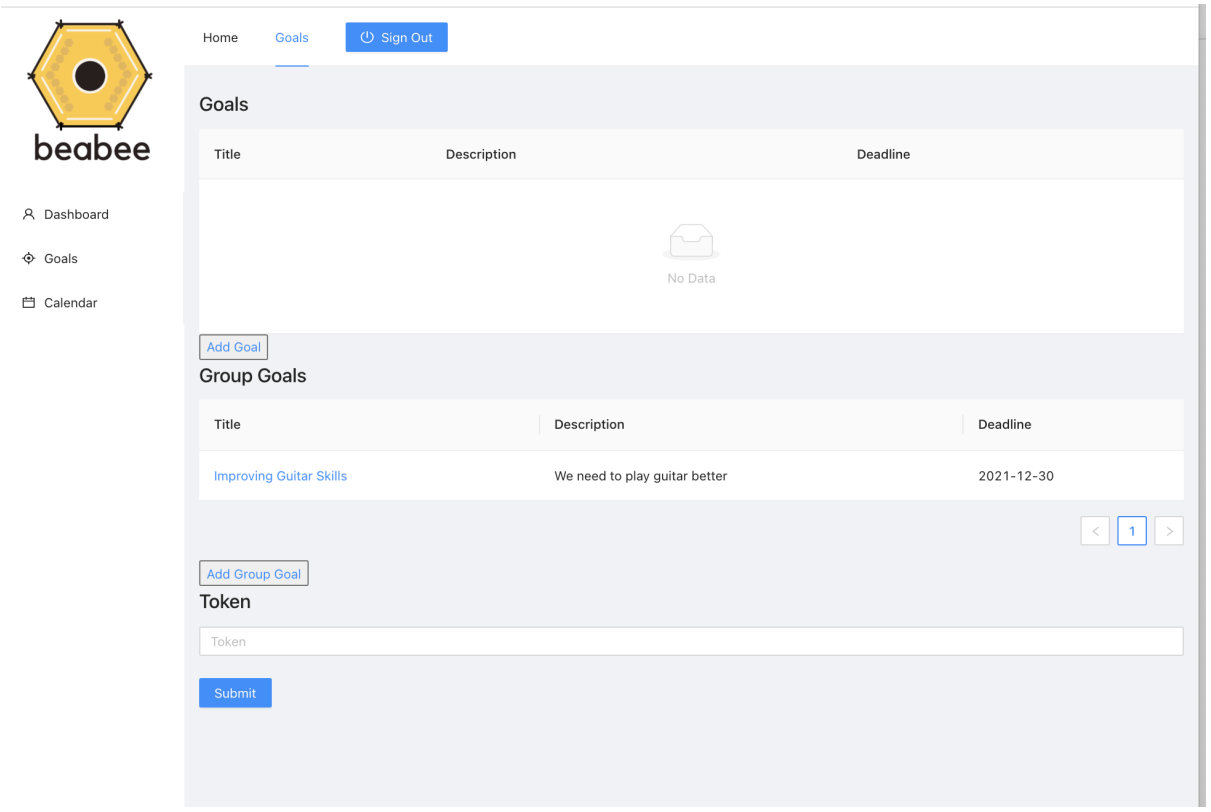
Table 11: Models

User Interface/User Experience

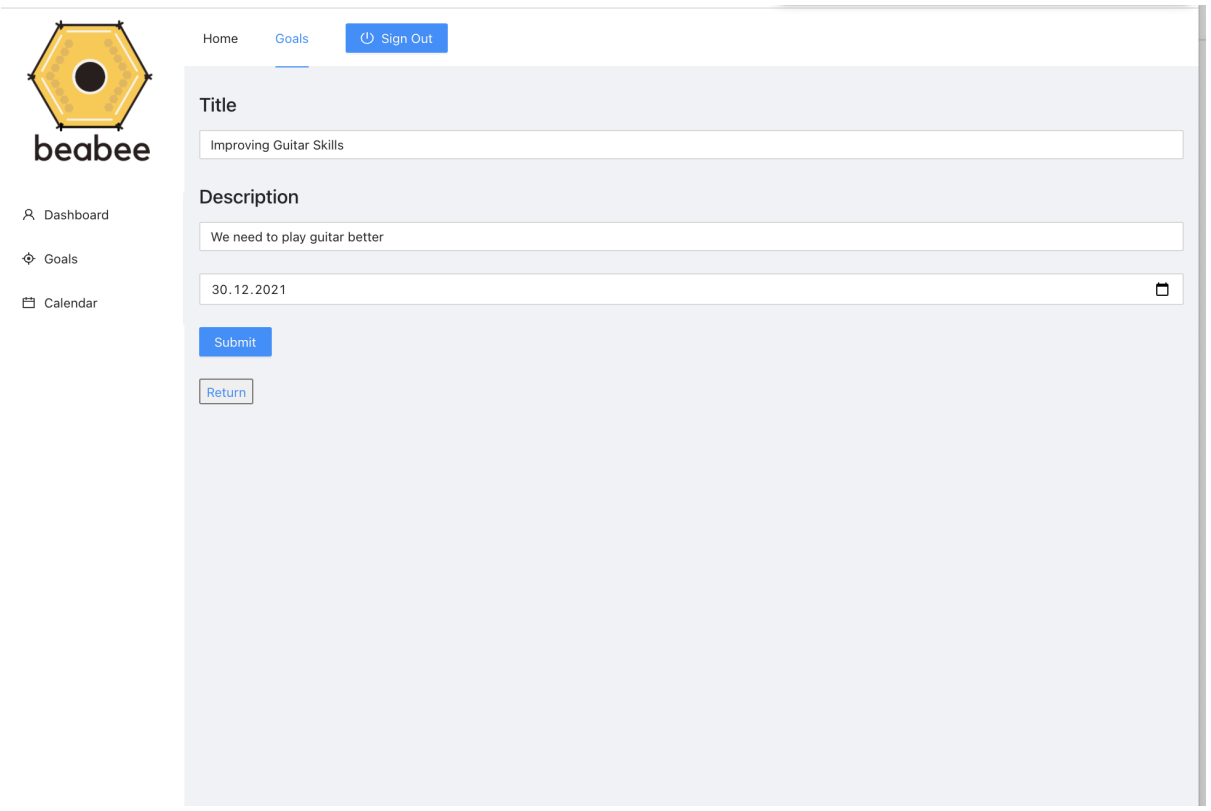
Web

Goals Page

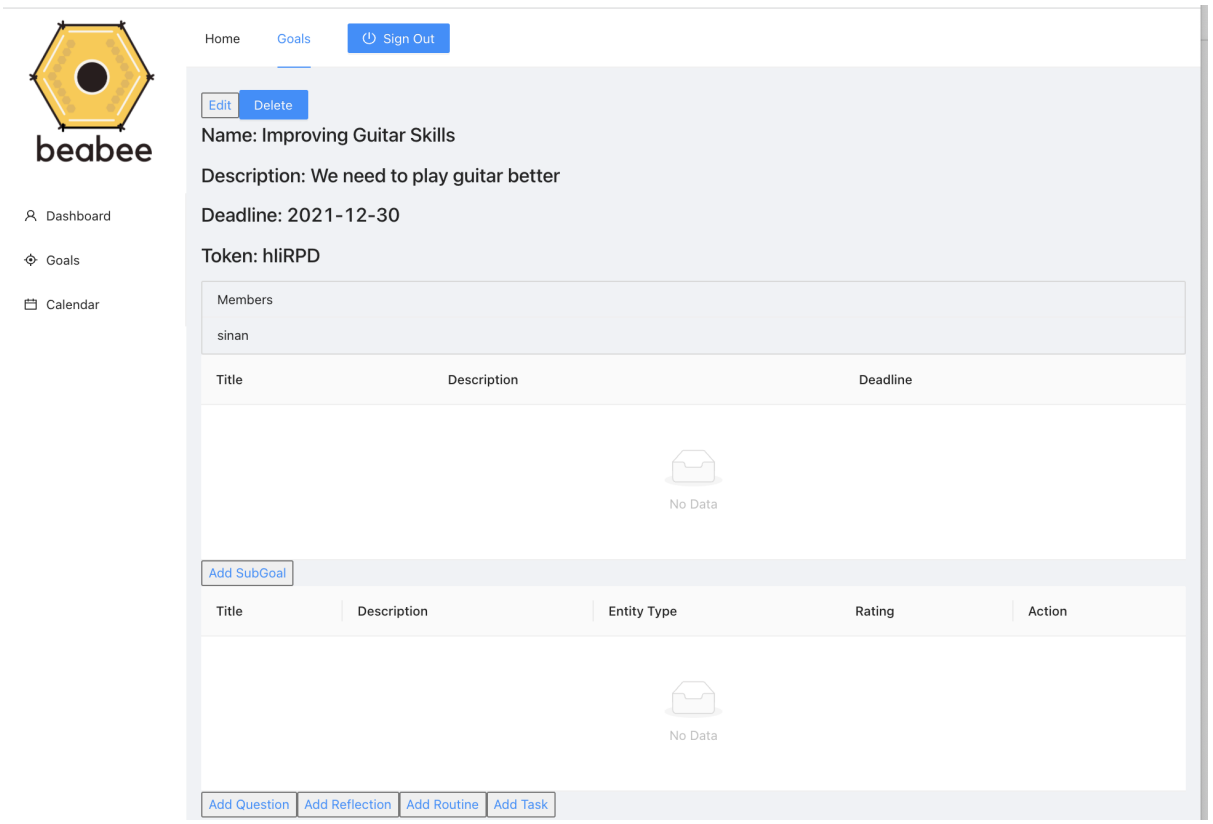
[2021SpringGroup12/GoalsPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



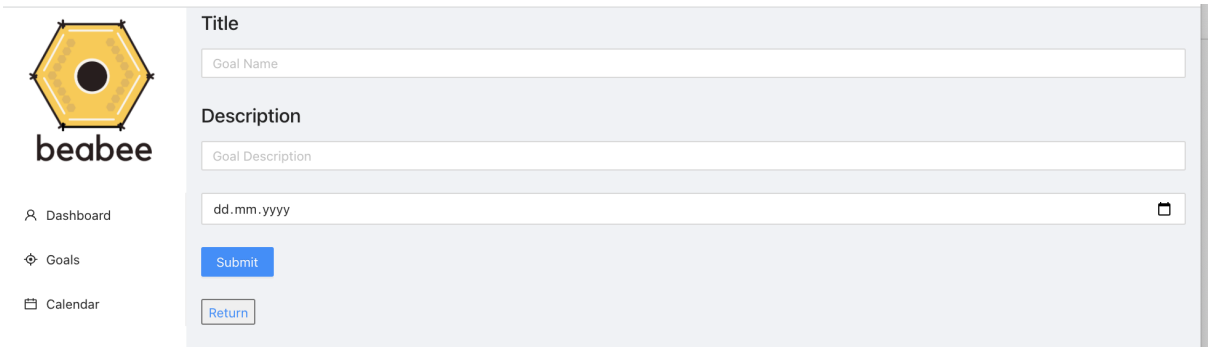
Adding Group Goal Page
[2021SpringGroup12/AddGoal.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



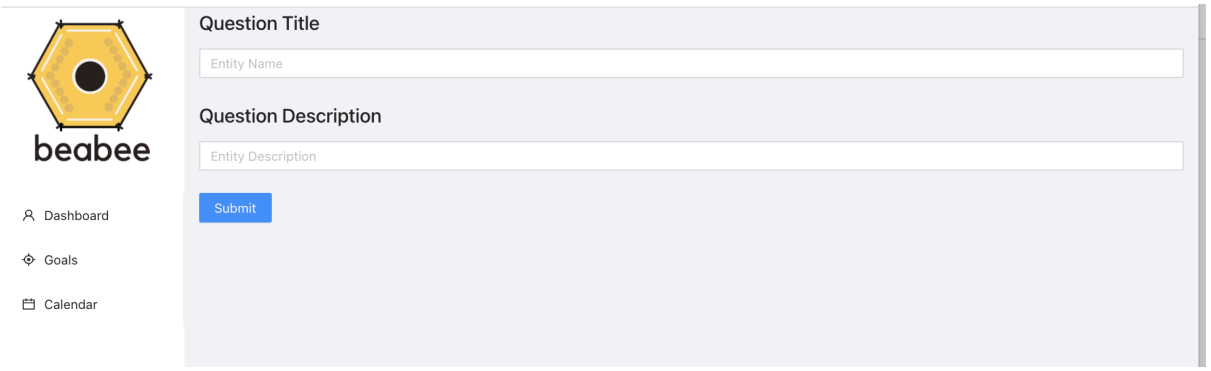
Group Goal Page
[2021SpringGroup12/GoalPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



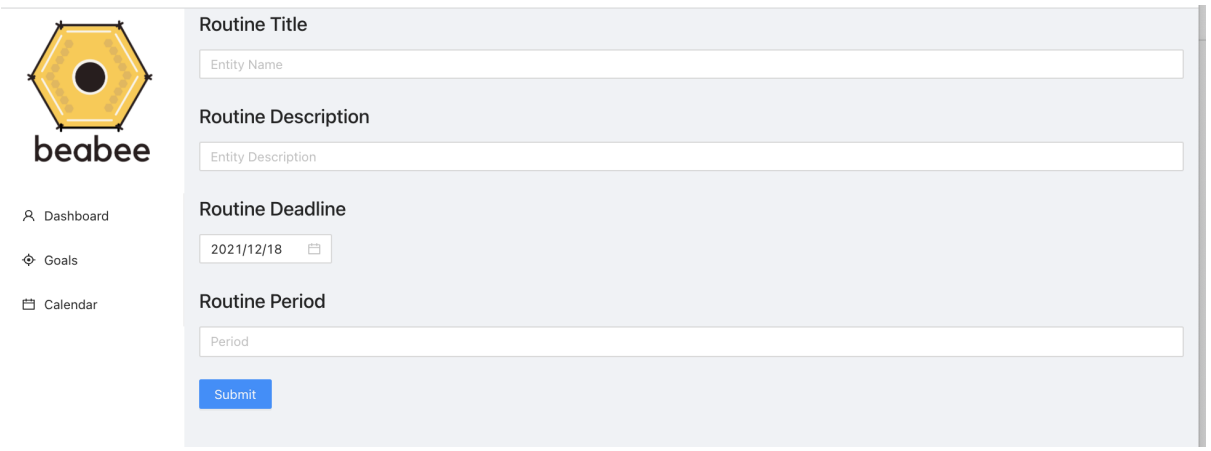
Add Sub-goal
[2021SpringGroup12/AddGoal.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



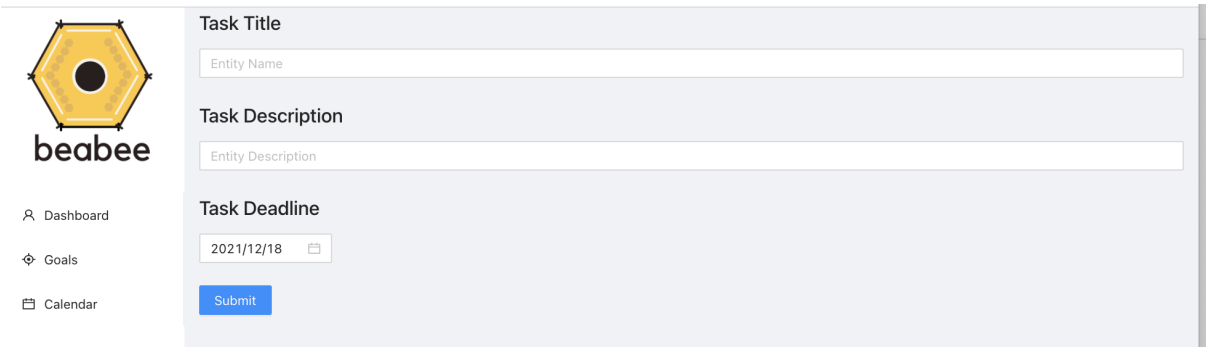
Add Question Page (Add reflection page is same with different names)
[2021SpringGroup12/AddEntity.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



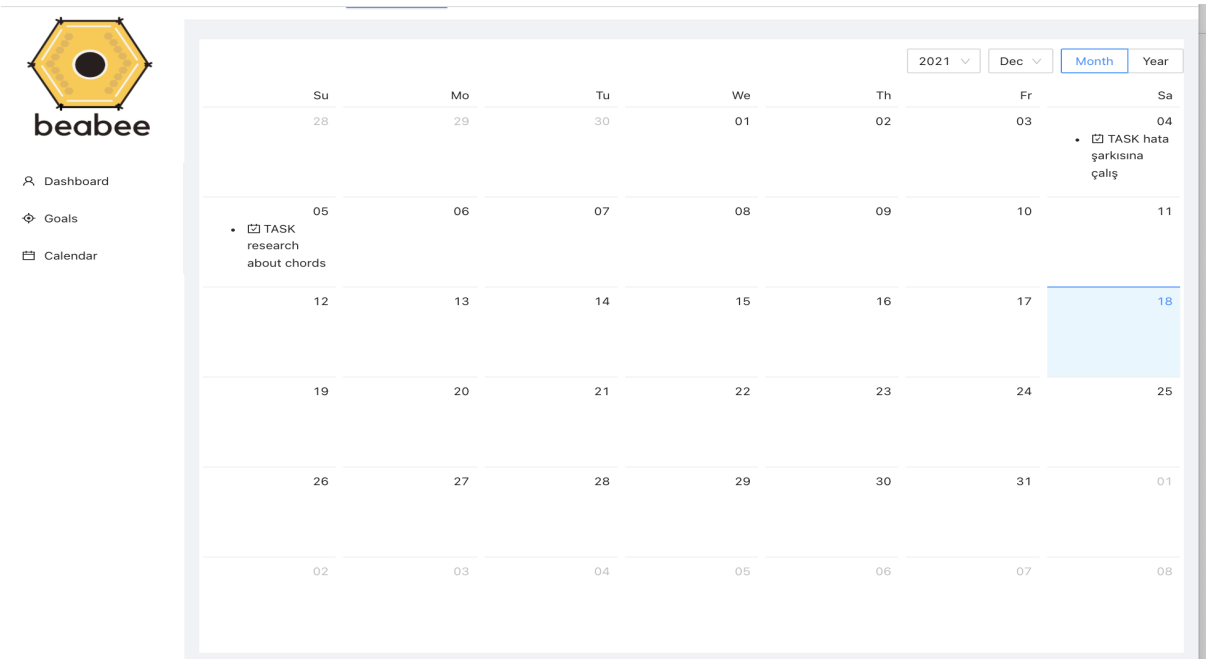
Add Routine Page
[2021SpringGroup12/AddEntity.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



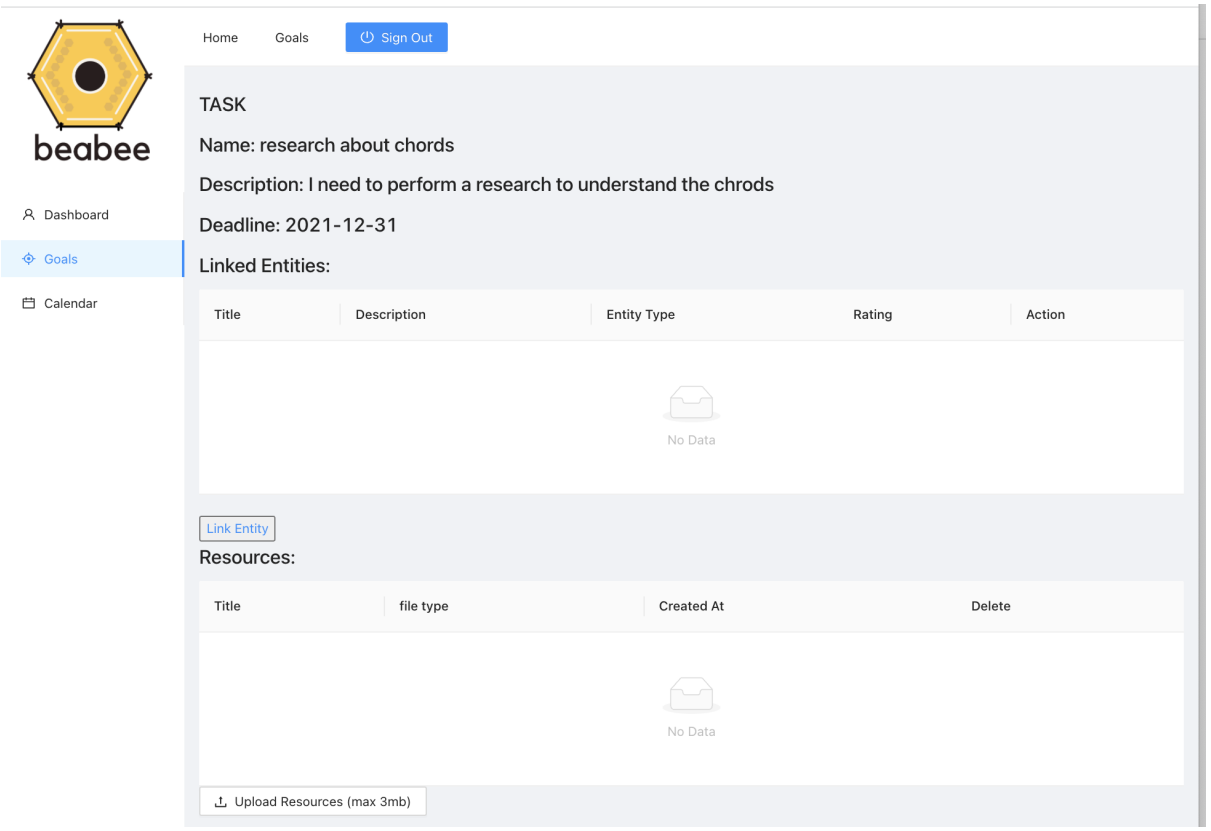
Add Task Page
[2021SpringGroup12/AddEntity.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



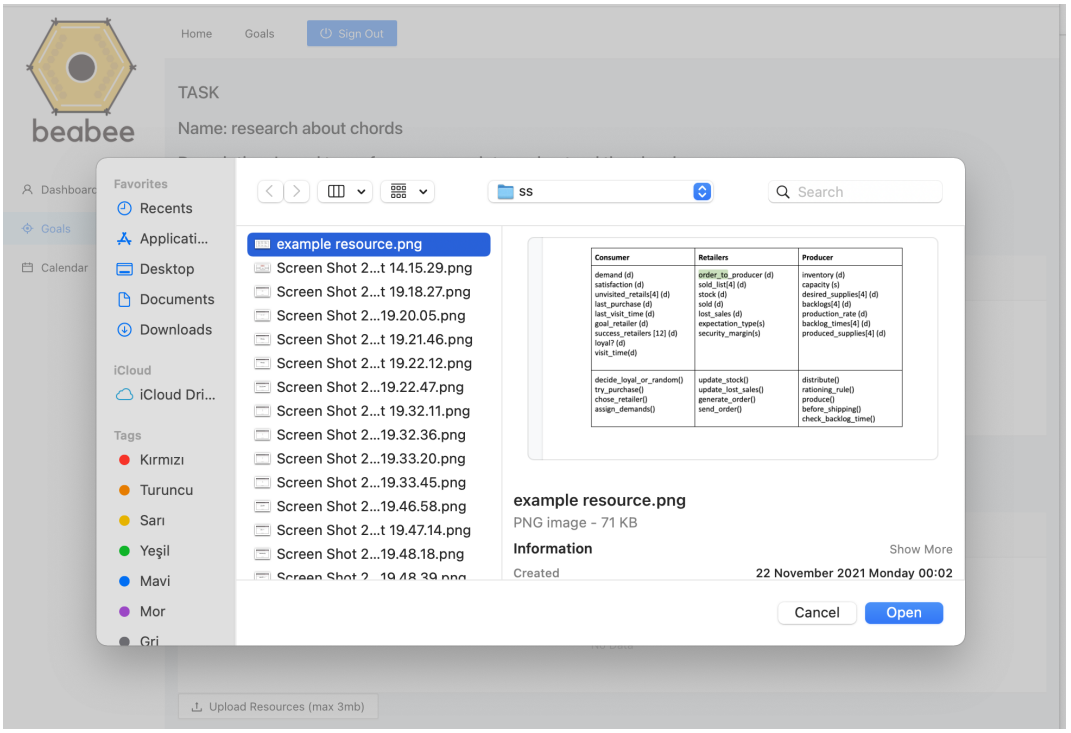
Calendar
[2021SpringGroup12/CalendarPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



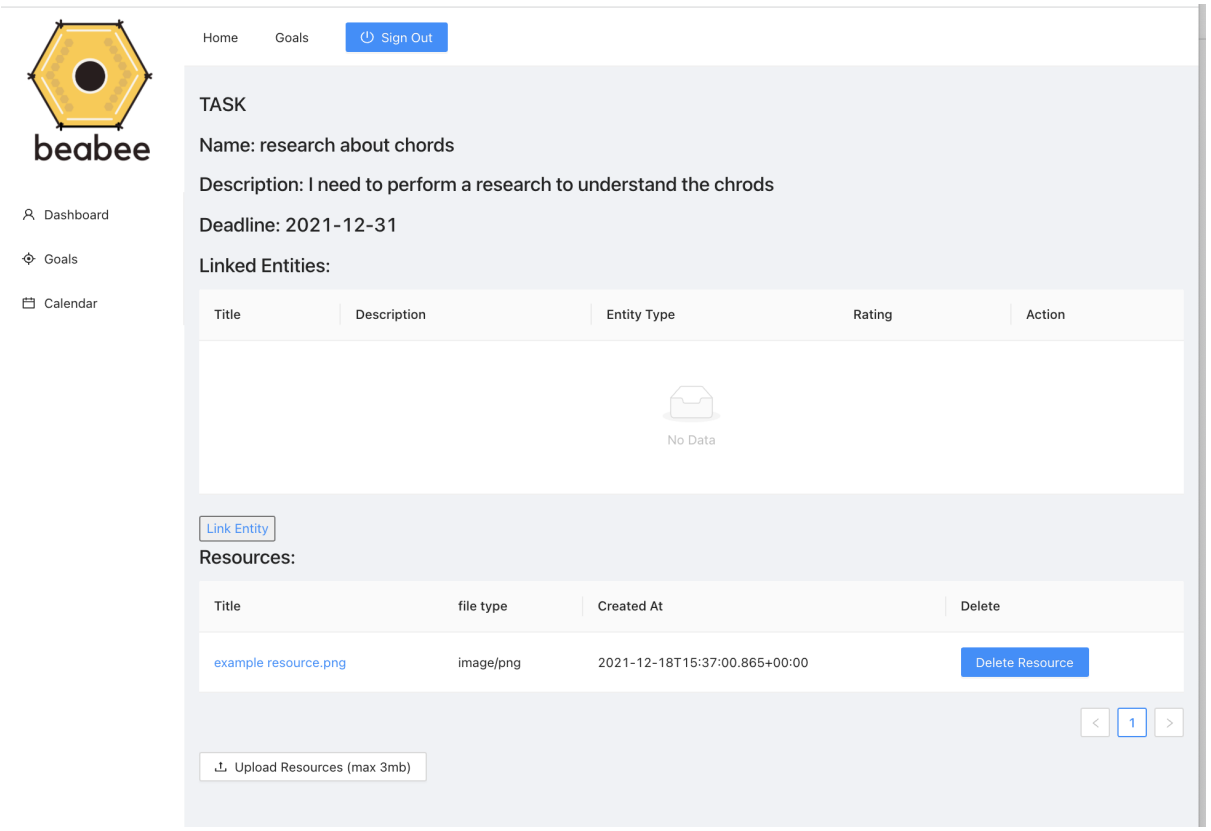
Entity Pages(Task will be given as an instance)
[2021SpringGroup12/EntityPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



Adding a resource
[2021SpringGroup12/EntityPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]

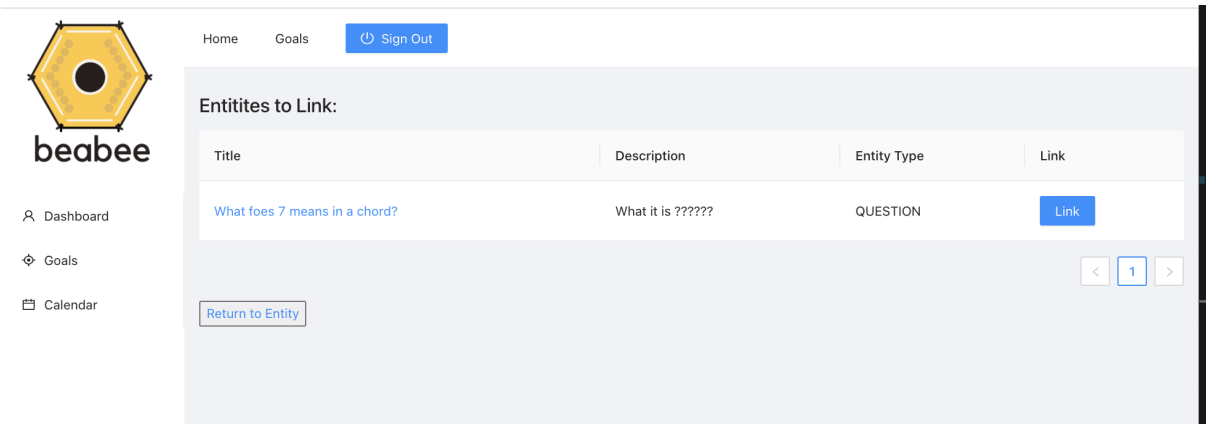


After adding a resource
[2021SpringGroup12/EntityPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



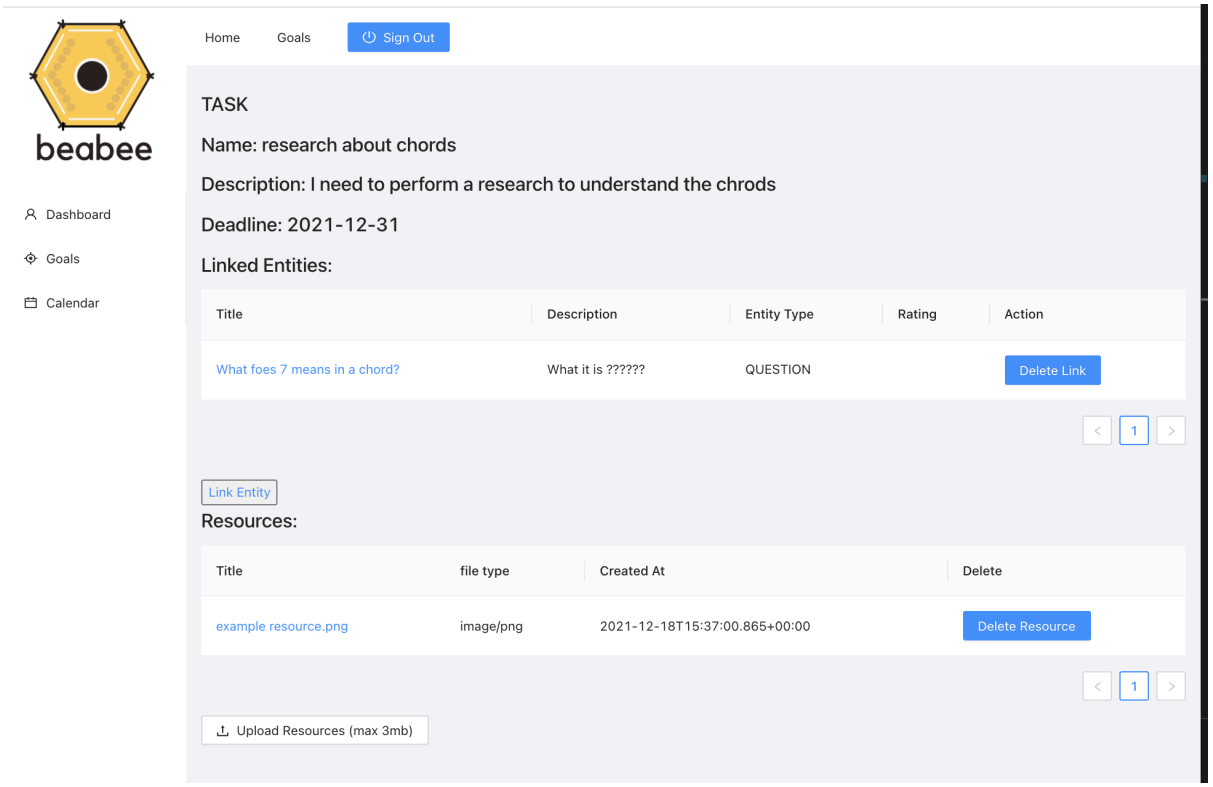
Linking Entities

[2021SpringGroup12/LinkEntity.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]

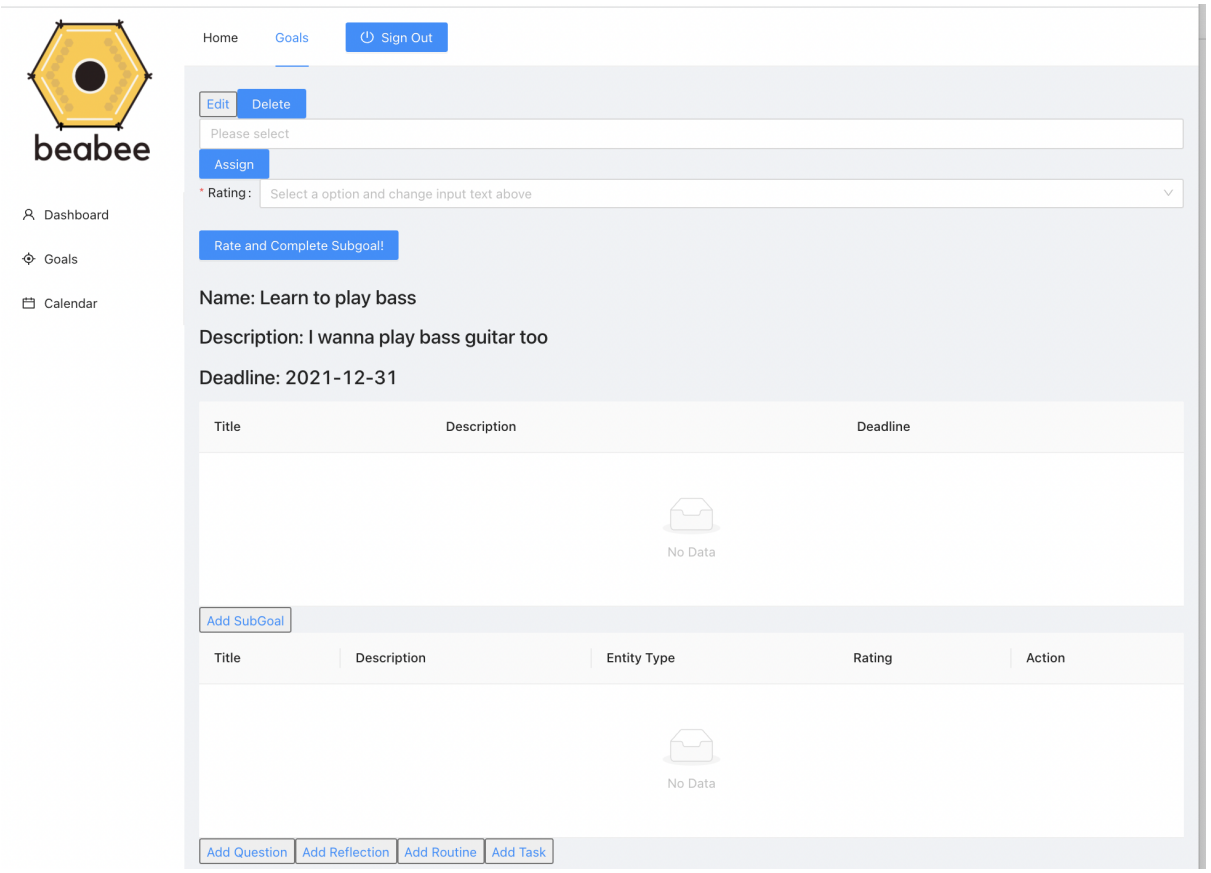


After clicking Link Button
[2021SpringGroup12/LinkEntity.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]

,

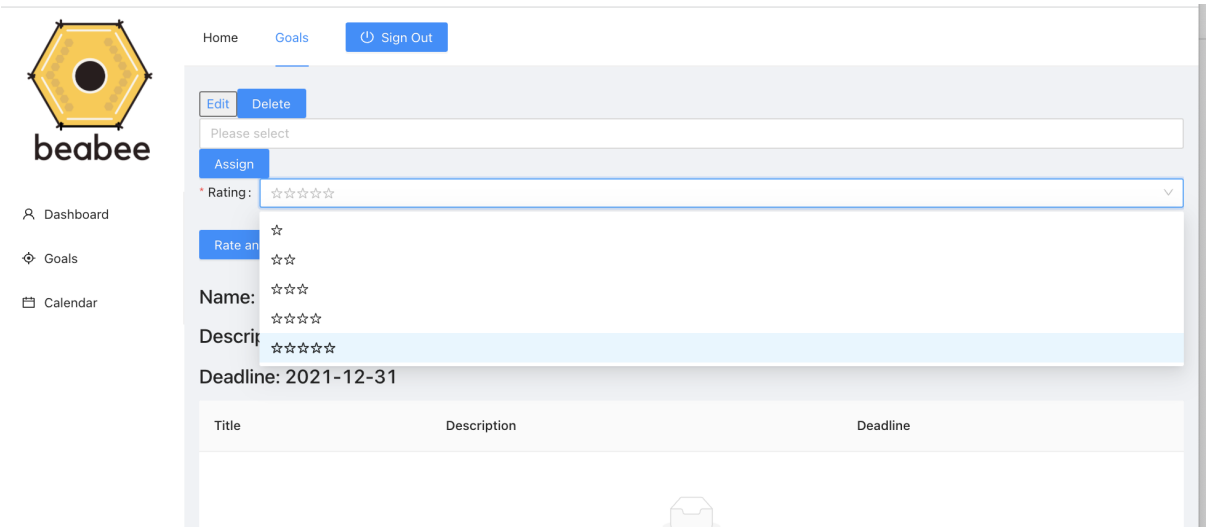


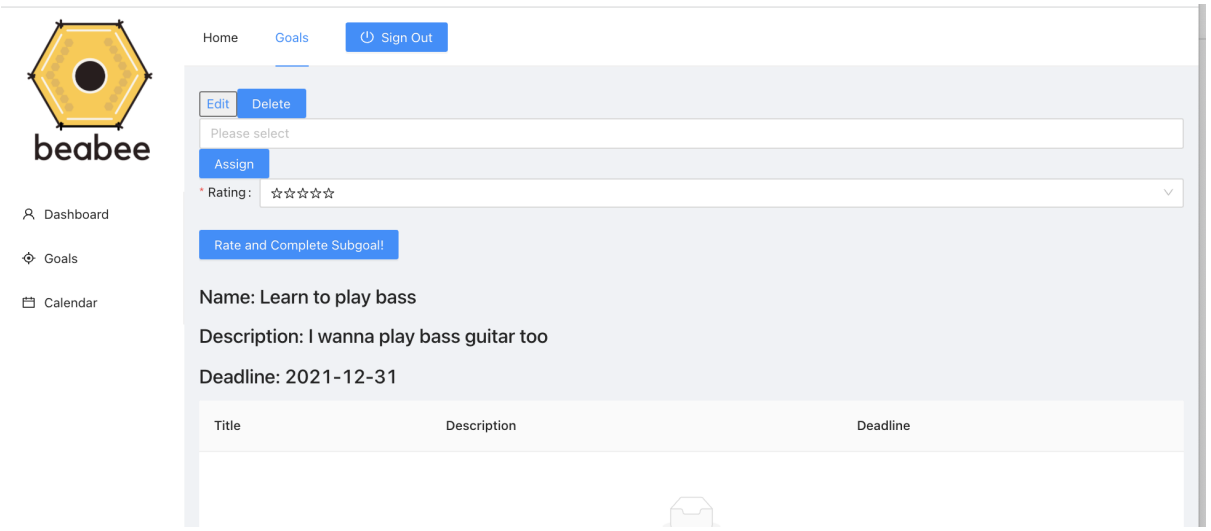
Subgoal Page
[2021SpringGroup12/GoalPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



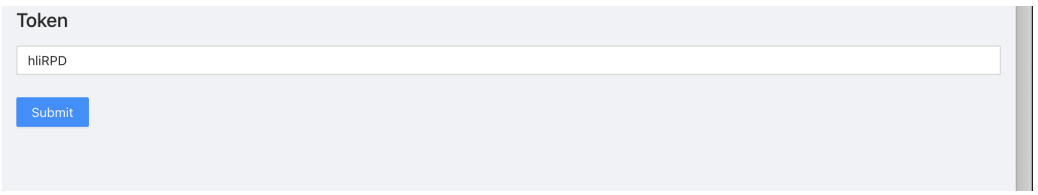
Rate the subgoal and close it

[2021SpringGroup12/GoalPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]





Joining a group with a token (batuhan will join sinan's group goal)
[2021SpringGroup12/GoalsPage.tsx at frontend/dev · bounswe/2021SpringGroup12 (github.com)]



beabee

Dashboard

Goals

Calendar

Name: Improving Guitar Skills

Description: We need to play guitar better

Deadline: 2021-12-30

Token: hliRPD

Members

sinan

batuhan

Title	Description	Deadline
Learn to play bass	I wanna play bass guitar too	2021-12-31

< 1 >

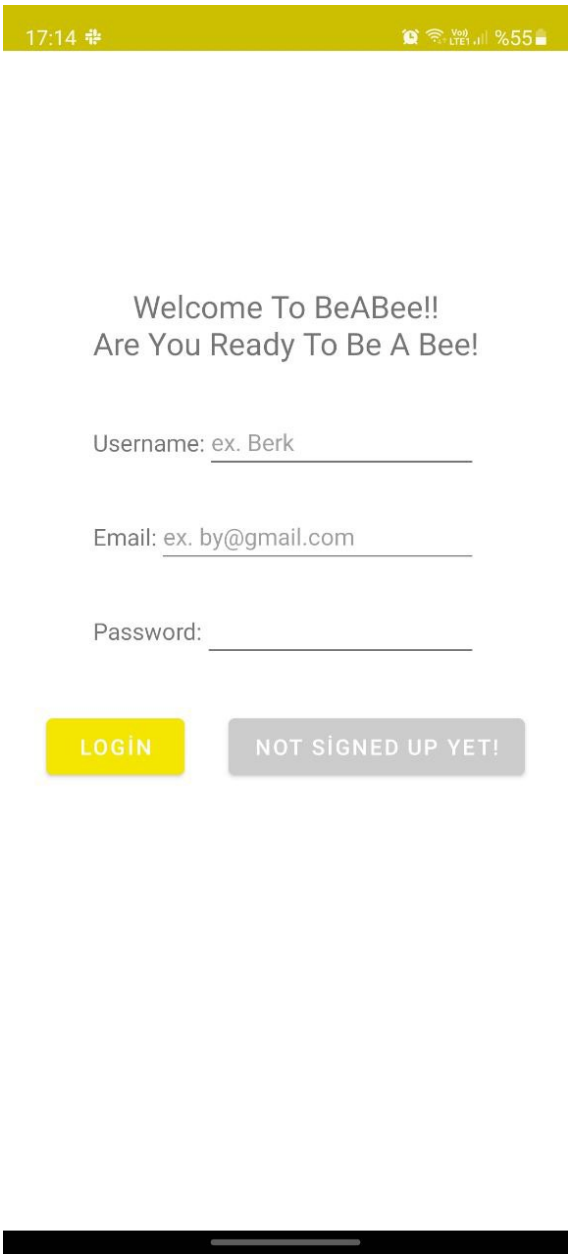
Add SubGoal

Title	Description	Entity Type	Rating	Action
research about chords	I need to perform a research to understand the chrods	TASK		Delete Edit
What foes 7 means in a chord?	What it is ??????	QUESTION		Delete Edit

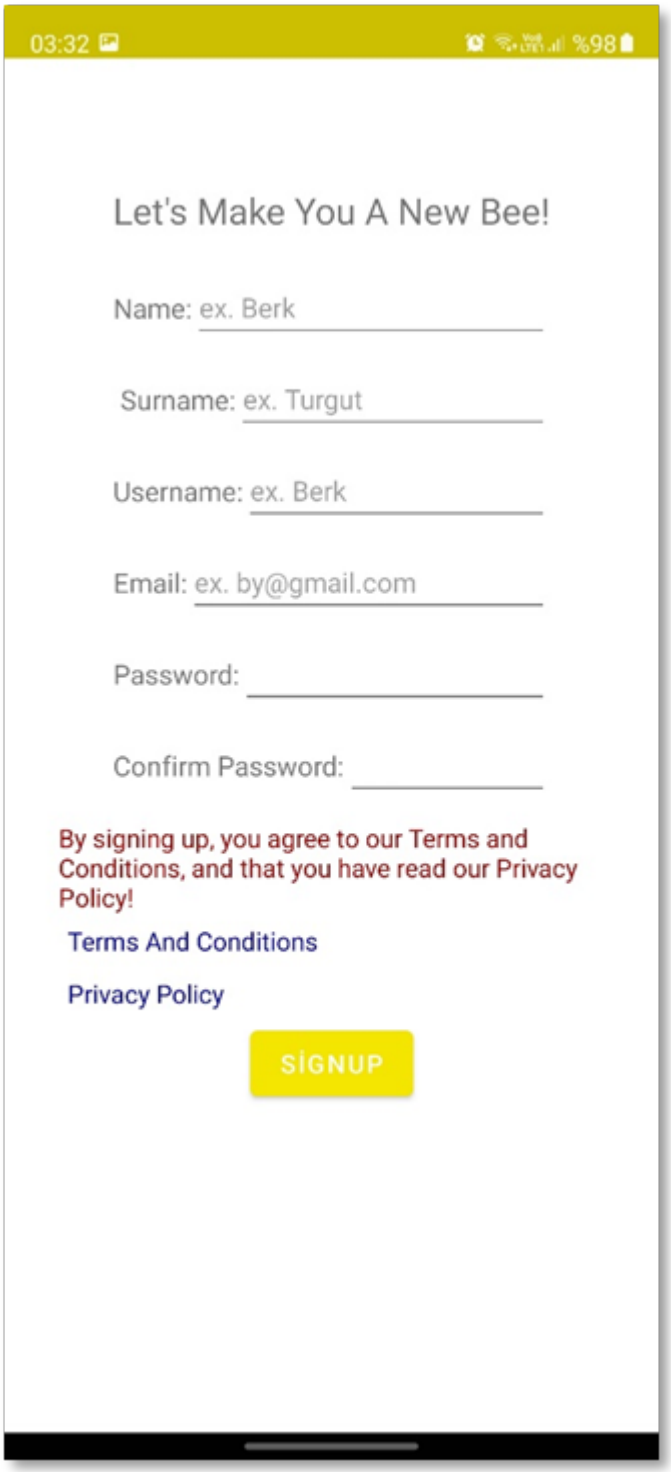
< 1 >

Add Question | Add Reflection | Add Routine | Add Task

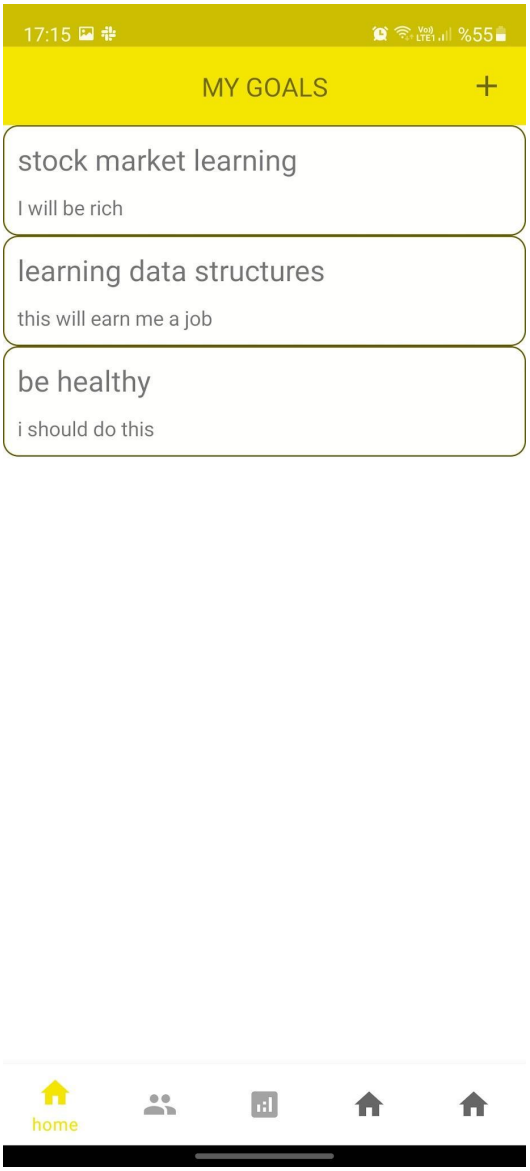
Mobile



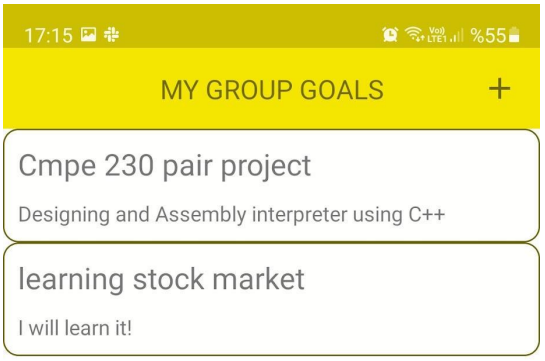
Login Page:https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/LoginActivity.java

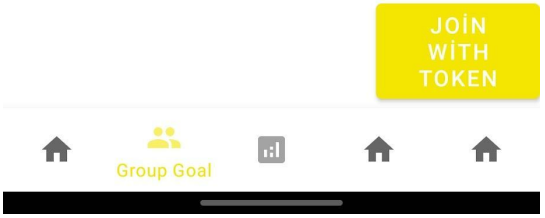


Signup Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/SignUpActivity.java



Goals Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/HomeFragment.java

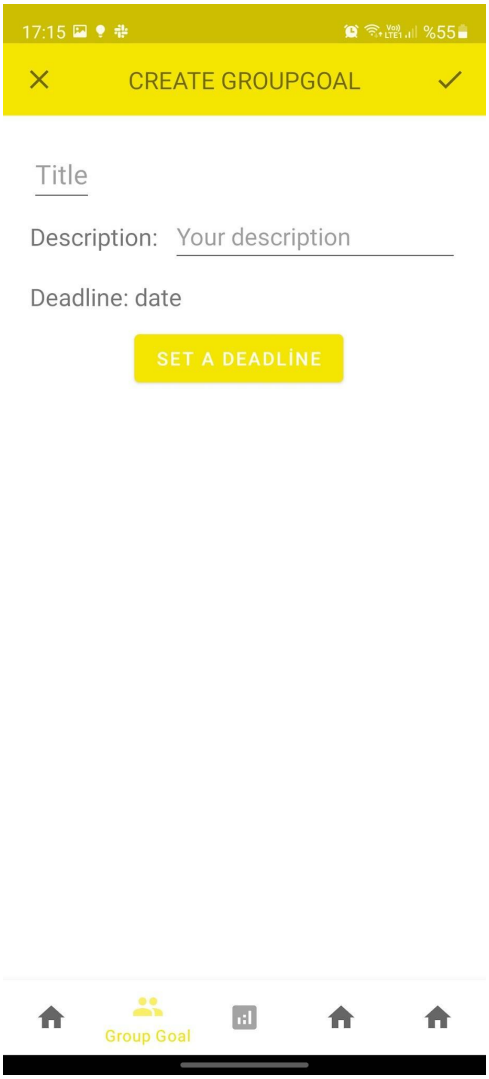




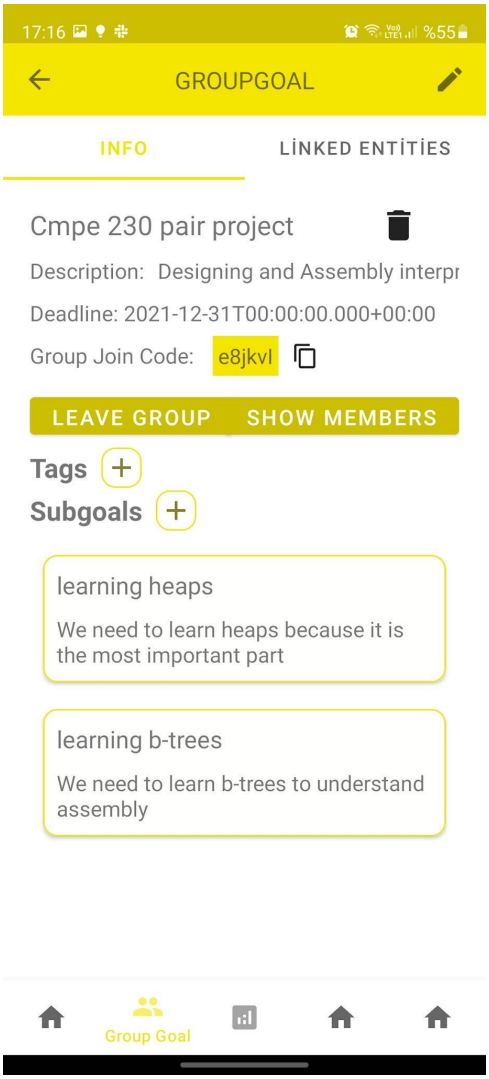
The Group Goals Page:

- https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/Home2Fragment.java

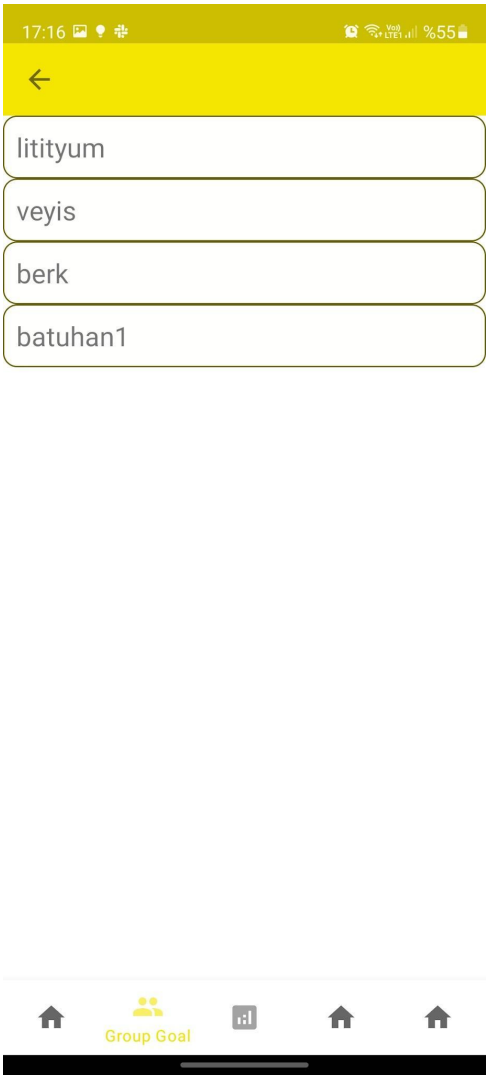
Join to aGroup Goal Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/JoinTokenFragment.java



Create a Group Goal Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/GroupGoalCreateFragment.java



Group Goal Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/GroupGoalFragment.java



Group Goal Members Page:
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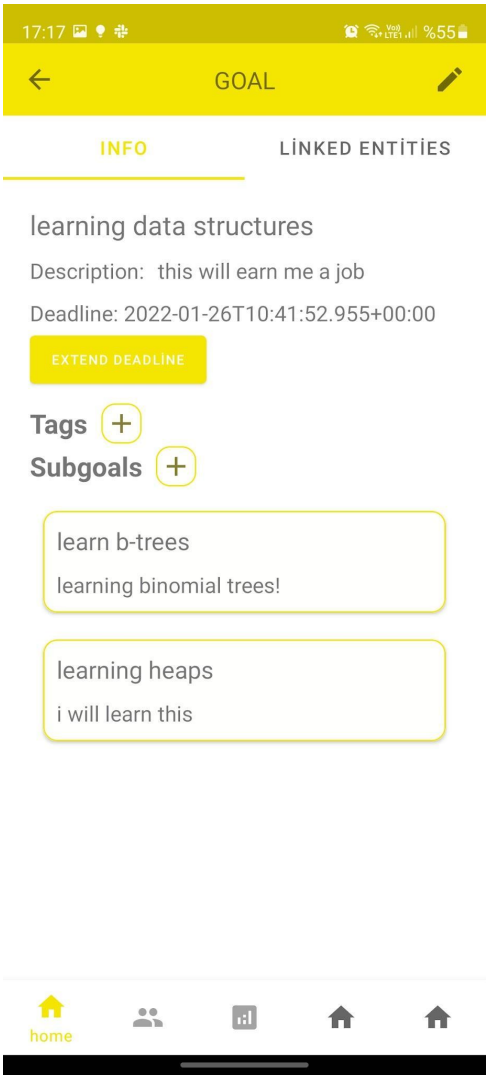
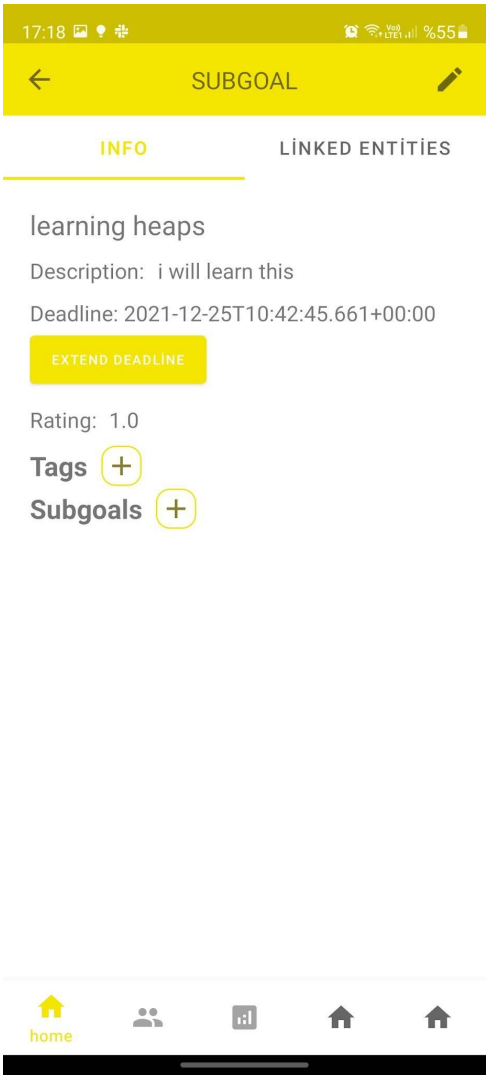
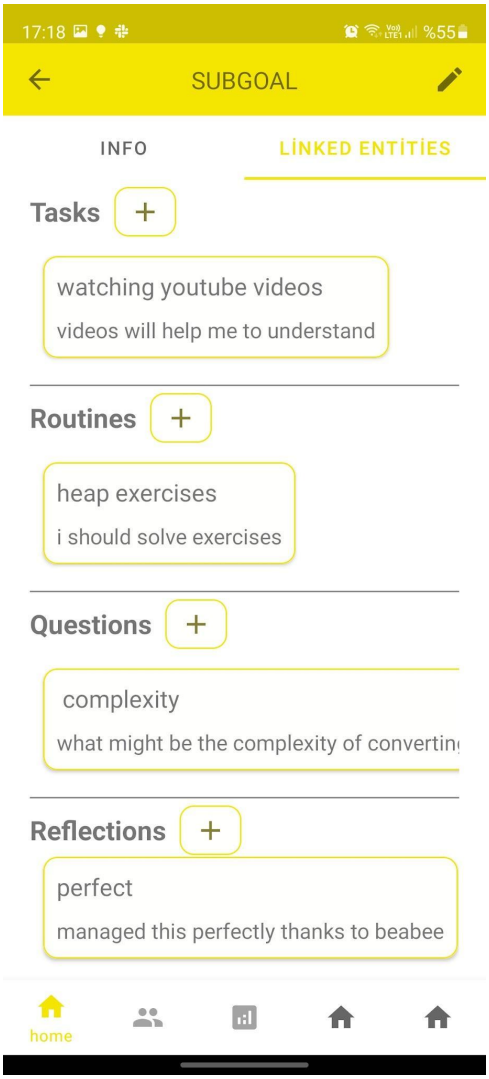


Goal Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/GoalFragment.java



Subgoal Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/SubgoalFragment.java



Subgoal Page:
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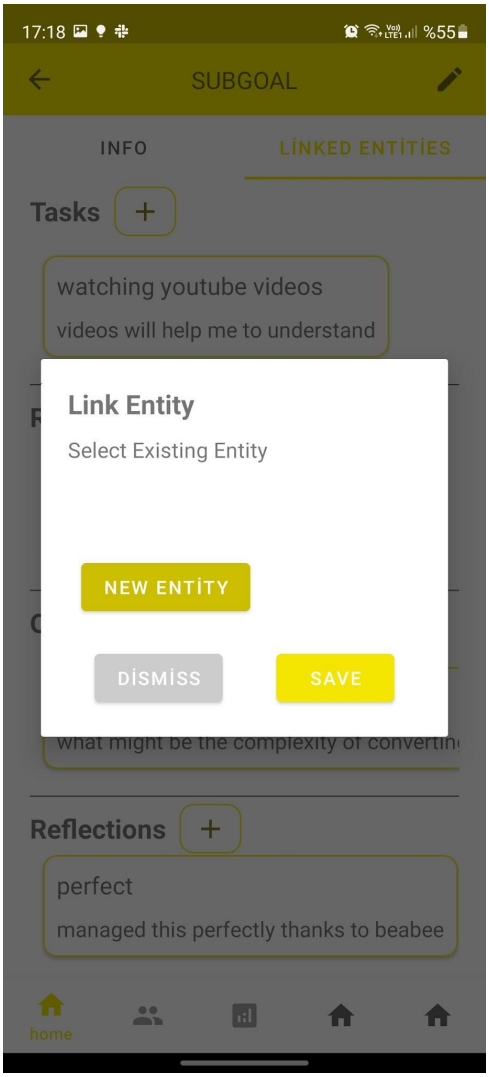
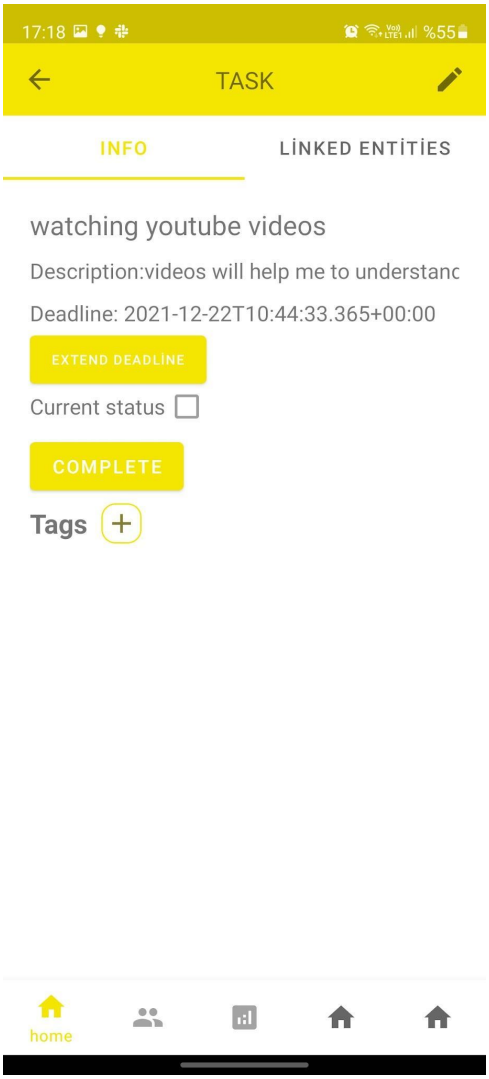
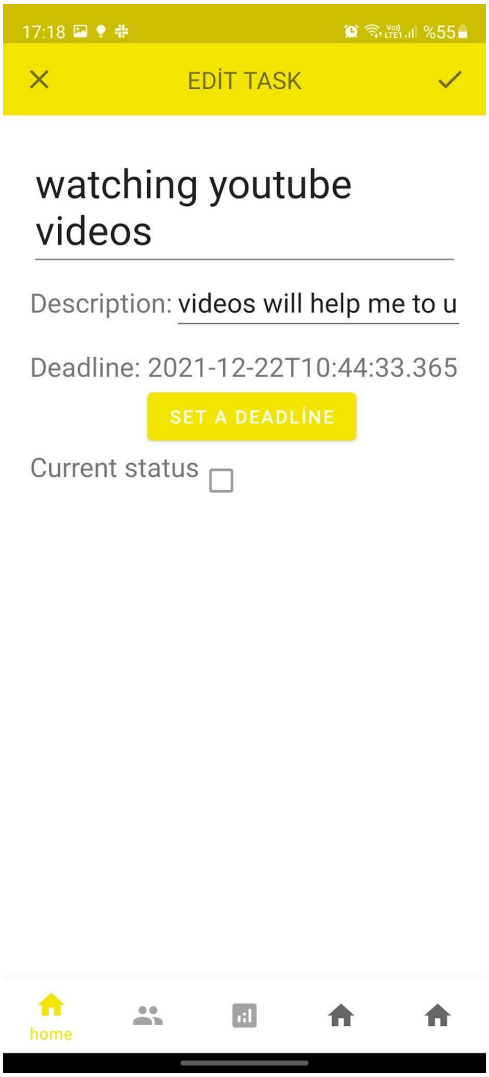


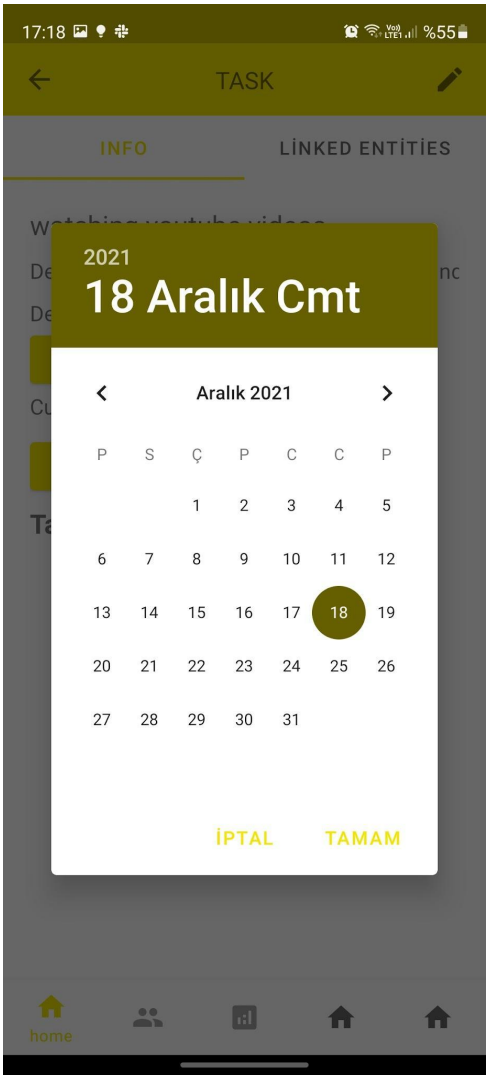
Entity selector dialog:https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/dialogs/EntitySelectorDialog.java



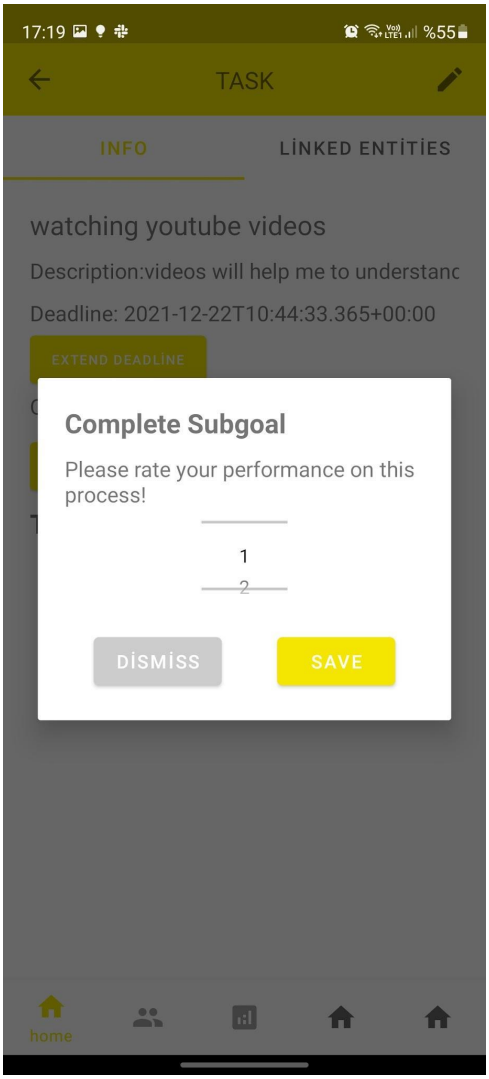
Task Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/TaskFragment.java



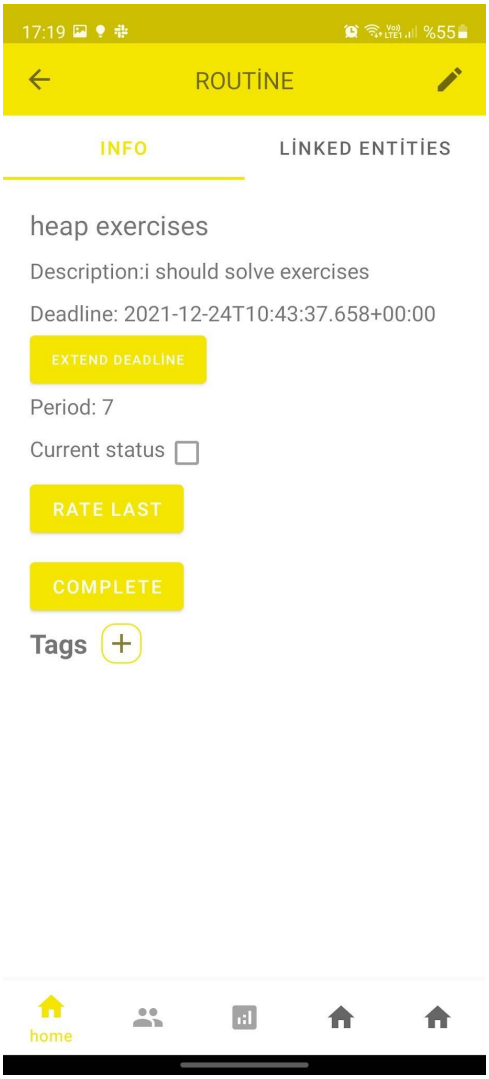
Edit Task Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/TaskFragmentEdit.java



Deadline extension:https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/DeadlineCalendarFragment.java

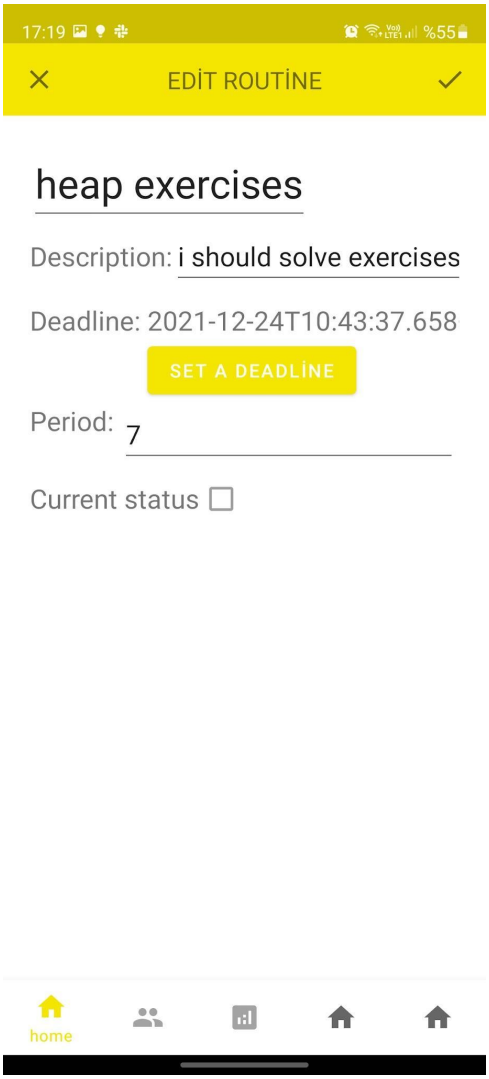


Complete and rate:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/Utils.java



Routine Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/RoutineFragment.java

Deadline selection:https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/DeadlineCalendarFragment.java



Edit Routine Page:
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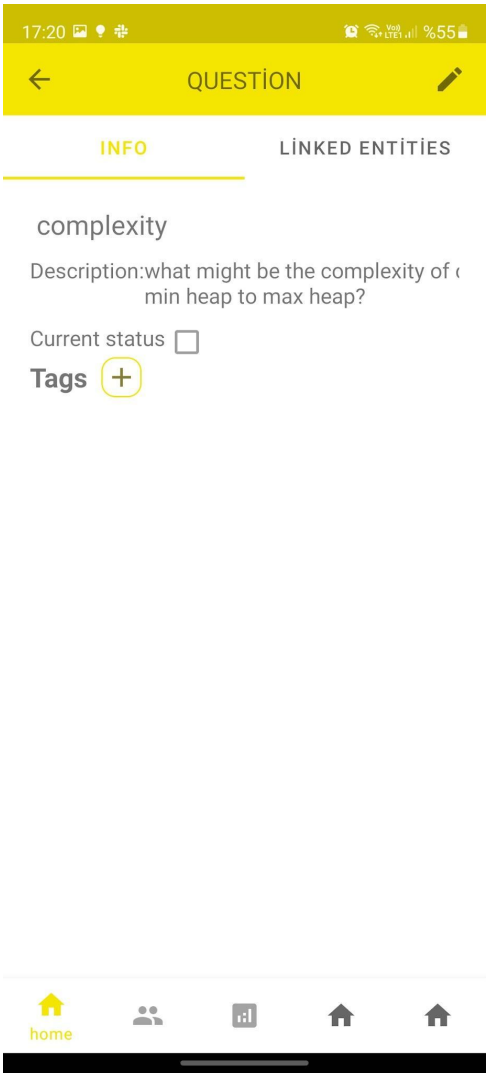
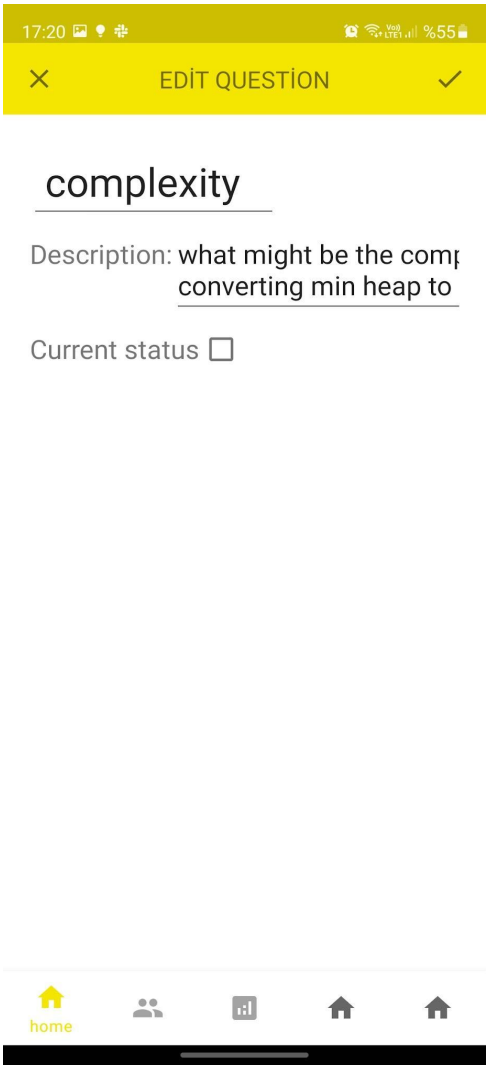


Question Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/RoutineFragment.java



Edit Question Page:
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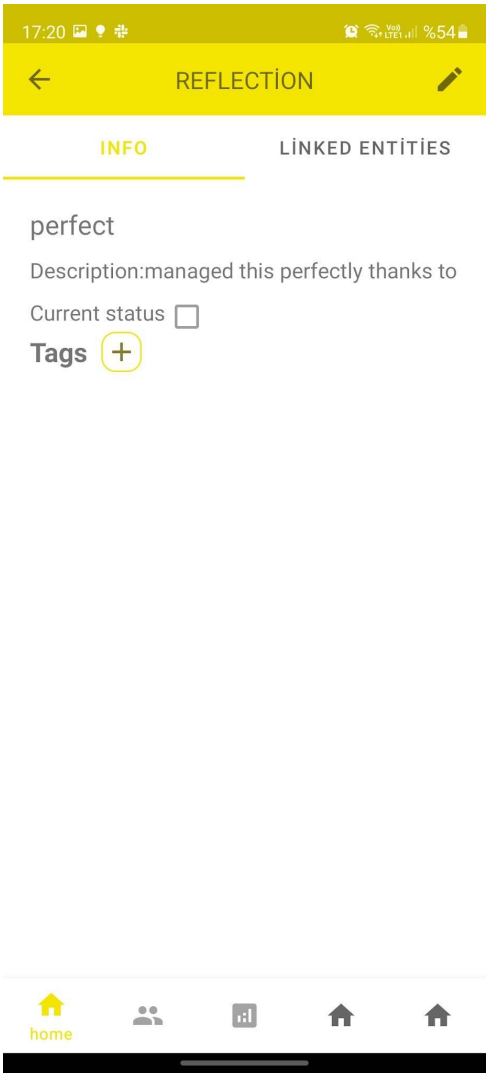
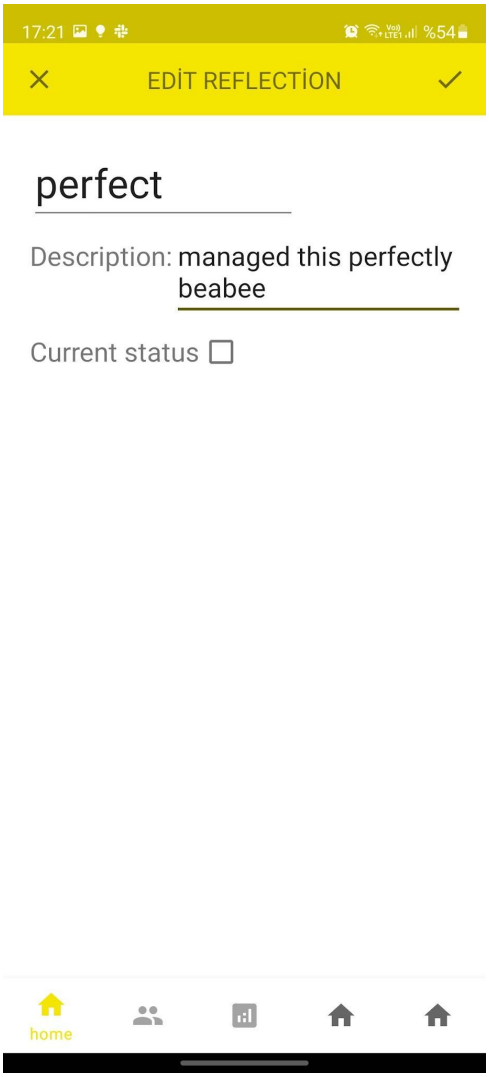


Reflection Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/entities/ReflectionFragment.java



Edit Reflection:
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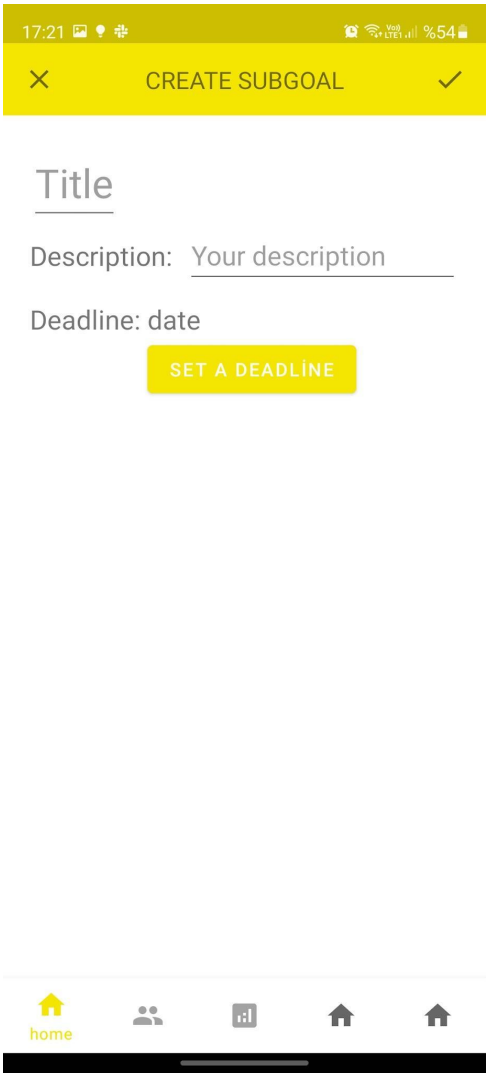
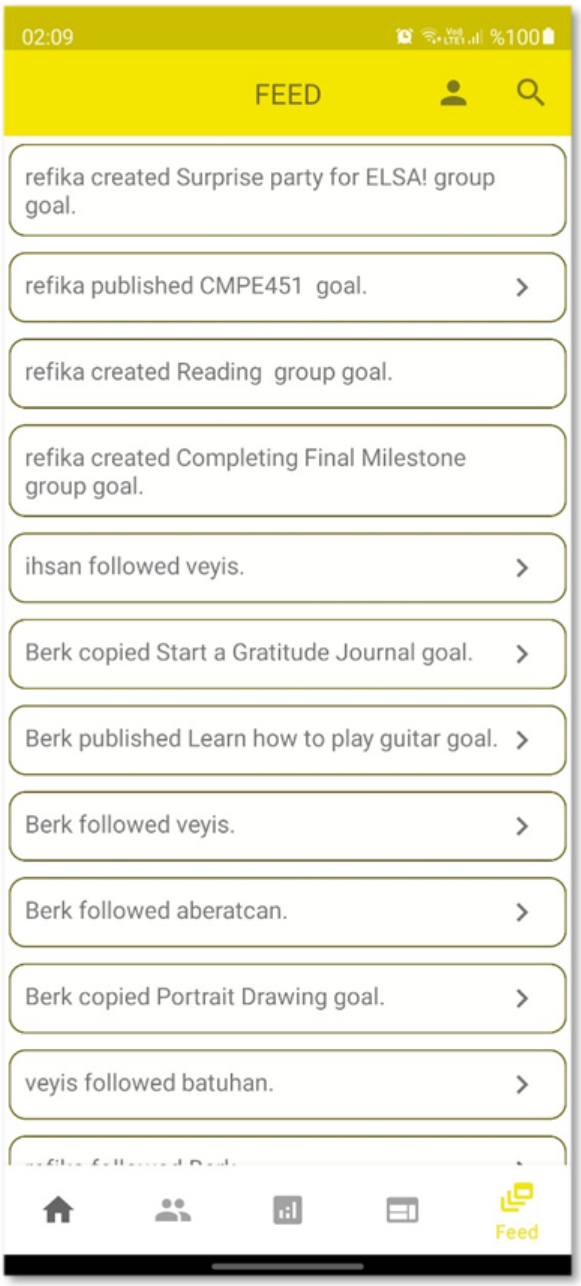
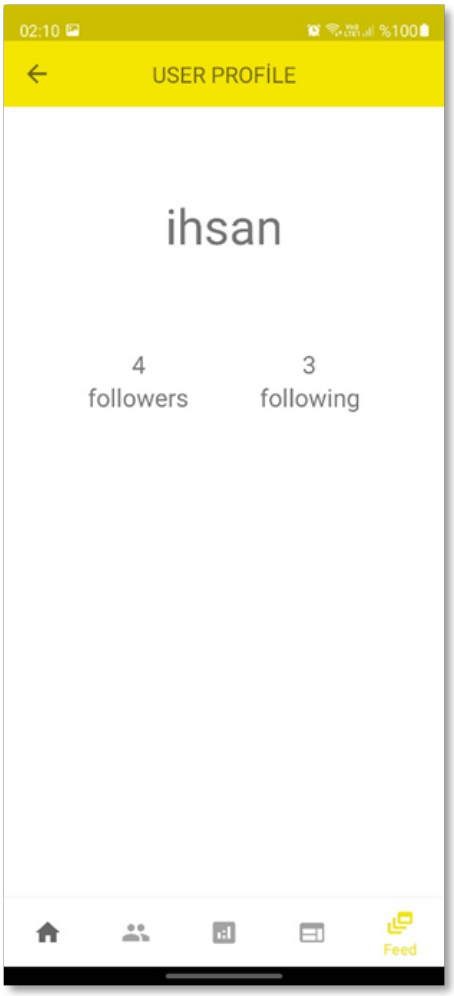


Create Subgoal Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/SubgoalCreateFragment.java

Analytics Page:
https://github.com/bounswe/2021SpringGroup12/blob/android/dev/application/android/app/src/main/java/com/group12/beabee/views/goals/Home3Fragment.java



Feed Page:https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/feed/FeedFragment.java

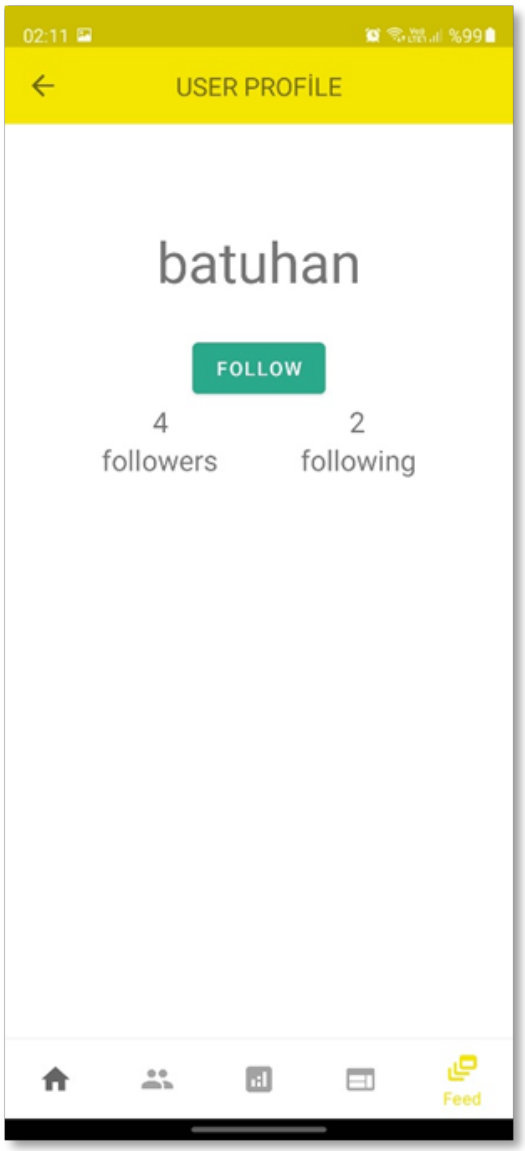


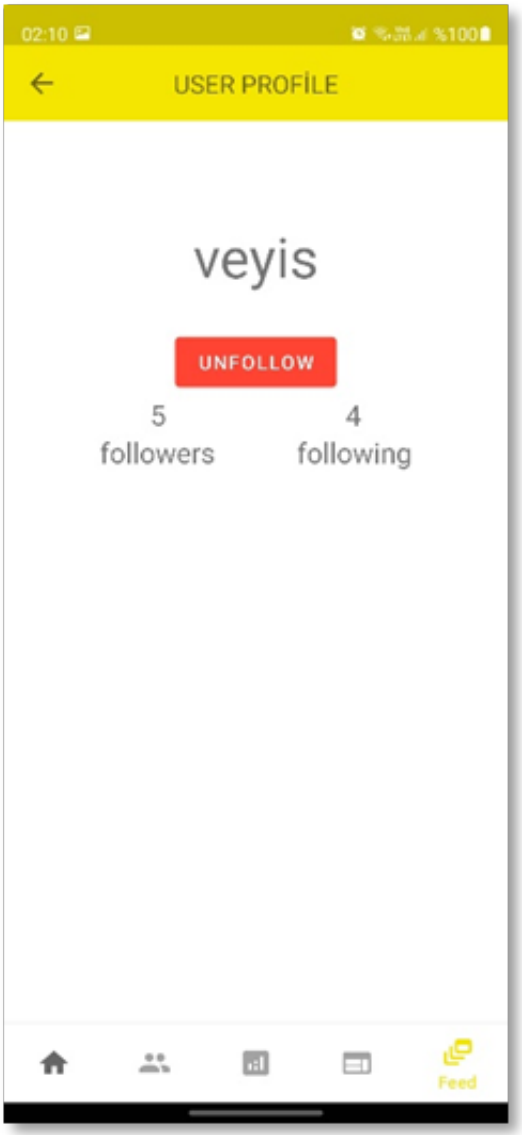
Profile Page:
https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/userprofile/UserProfileFragment.java

Follower/Following List Page:
https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/userprofile/UserFollowingList.java

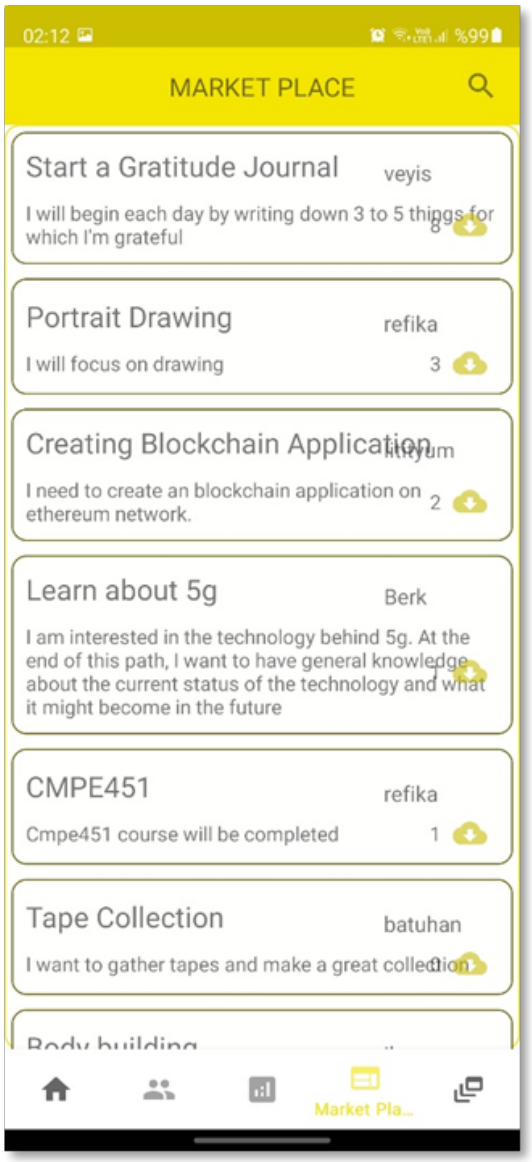
User Search Page:

https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/userprofile/UserSearchFragment.java

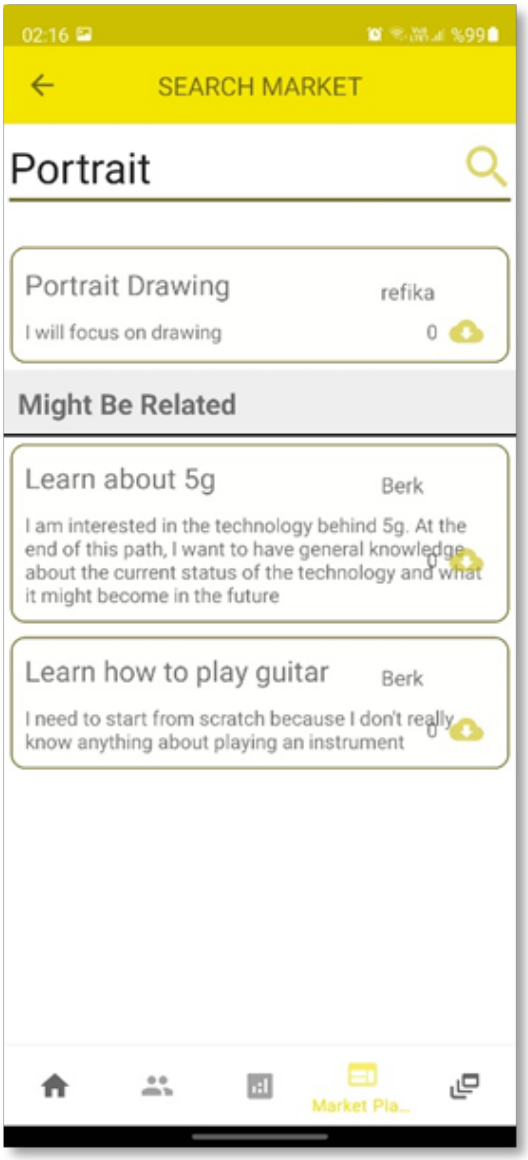




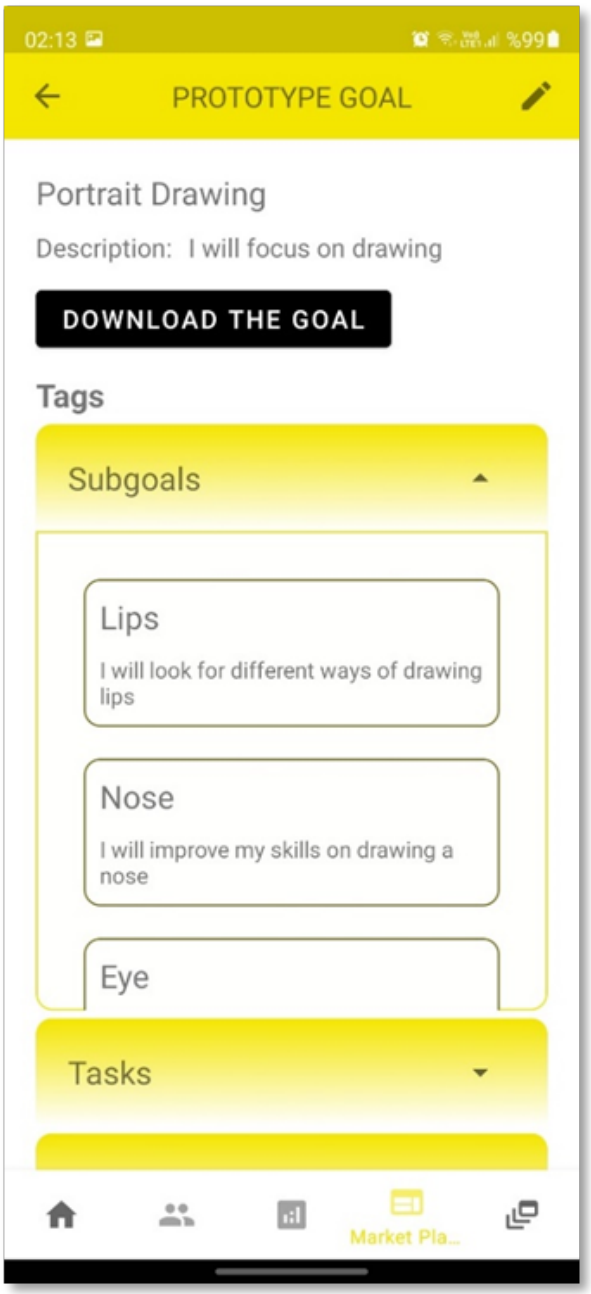
Other Users' Profile Page:
https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/userprofile/UserProfileFragment.java



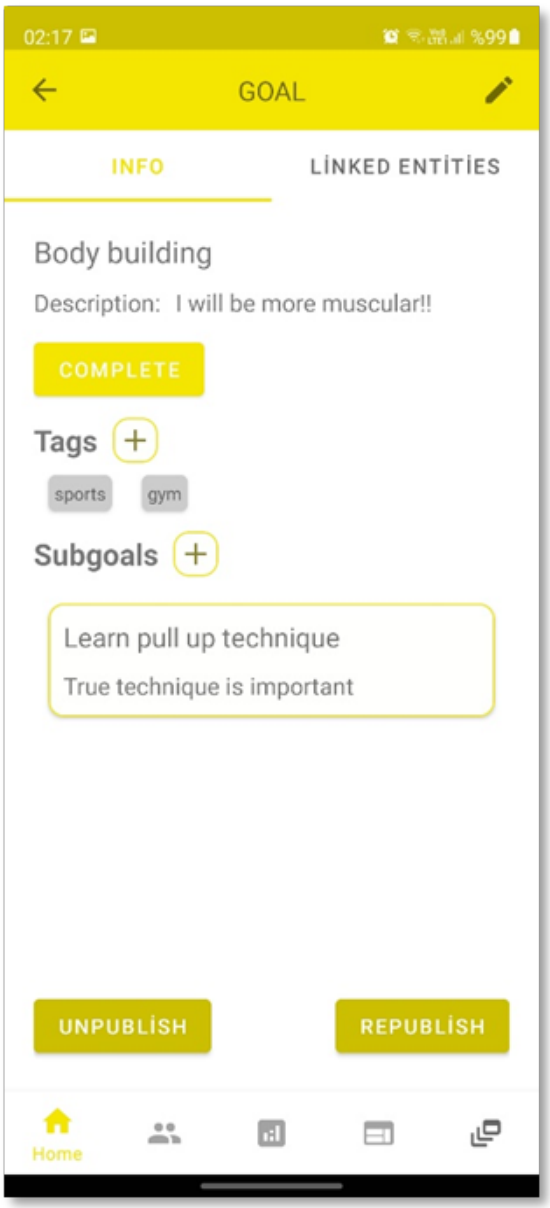
Marketplace Page:
https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/Home4Fragment.java

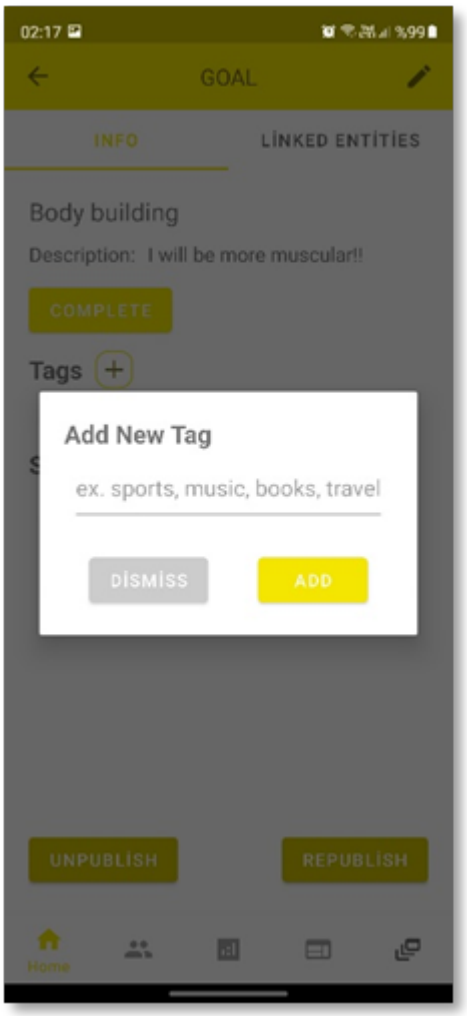


Goal Search Page:
https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/Home4_2Fragment.java



Goal Prototype Page:
https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/goals/PrototypeGoalFragment.java





Tags :

https://github.com/bounswe/2021SpringGroup12/blob/master/application/android/app/src/main/java/com/group12/beabee/views/entities/TagCardViewAdapter.java

User Manual

Android Manual:
https://github.com/bounswe/2021SpringGroup12/blob/master/Reports/User%20Manual%20-%20Android.pdf
Frontend Manuel:
https://github.com/bounswe/2021SpringGroup12/blob/master/Reports/User%20Manual%20-%20Frontend.pdf

System Manual

https://github.com/bounswe/2021SpringGroup12/wiki/System-Manual

Project Plan

		Name	Duration	Start	Finish	Predeces...
1		**Group Meetings**	**1 day**	**10/19/21, 8:00 AM**	**10/19/21, 5:00 PM**	
2		All	0.25 days	10/19/21, 8:00 AM	10/19/21, 9:59 AM	
3		Backend	0.75 days	10/19/21, 9:59 AM	10/19/21, 5:00 PM	2
4		Frontend	0.214 days	10/19/21, 9:59 AM	10/19/21, 11:42 AM	2
5		Android	0.667 days	10/19/21, 9:59 AM	10/19/21, 4:19 PM	2
6		**Pre Implementation**	**6.752 days**	**10/19/21, 9:59 AM**	**10/25/21, 5:00 PM**	
7		Revising Requirements, Designs, Plans	2 days	10/19/21, 9:59 AM	10/21/21, 9:59 AM	
8		Gardening Wiki Page	2 days	10/19/21, 9:59 AM	10/21/21, 9:59 AM	
9		**Backend**	**3 days**	**10/23/21, 8:00 AM**	**10/25/21, 5:00 PM**	
10		Initialize Server	3 days	10/23/21, 8:00 AM	10/25/21, 5:00 PM	
11		**Frontend**	**3 days**	**10/23/21, 8:00 AM**	**10/25/21, 5:00 PM**	
12		Create Initial Design	3 days	10/23/21, 8:00 AM	10/25/21, 5:00 PM	
13		**Android**	**3 days**	**10/23/21, 8:00 AM**	**10/25/21, 5:00 PM**	
14		Create Initial Design	3 days	10/23/21, 8:00 AM	10/25/21, 5:00 PM	
15		Progress Review Meeting	0.1 days?	10/26/21, 8:00 AM	10/26/21, 8:48 AM	
16		**Login Register**	**6 days**	**10/26/21, 8:48 AM**	**11/1/21, 8:48 AM**	
17		**Backend**	**6 days**	**10/26/21, 8:48 AM**	**11/1/21, 8:48 AM**	
18		Implement User, User Credentials and Guest Class...	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
19		Implement Register System	4 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
20		Implement Login System	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
21		Implement Reset Password System	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
22		**Frontend**	**6 days**	**10/26/21, 8:48 AM**	**11/1/21, 8:48 AM**	
23		Register Page	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
24		Login Page	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
25		Reset Password Page	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
26		**Android**	**6 days**	**10/26/21, 8:48 AM**	**11/1/21, 8:48 AM**	
27		Register Page	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
28		Login Page	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
29		Reset Password Page	6 days	10/26/21, 8:48 AM	11/1/21, 8:48 AM	
30		**CI/CD Implementation**	**0.5 days?**	**11/1/21, 8:48 AM**	**11/1/21, 1:48 PM**	**16**
31		Github Actions	0.5 days?	11/1/21, 8:48 AM	11/1/21, 1:48 PM	
32		Configuring AWS	0.5 days?	11/1/21, 8:48 AM	11/1/21, 1:48 PM	
33		Progress Review Meeting	0.012 days?	11/2/21, 8:48 AM	11/2/21, 8:53 AM	
34		**GoalSpace**	**14.4 days**	**11/2/21, 8:48 AM**	**11/16/21, 1:00 PM**	**16**

		Name	Duration	Start	Finish	Predeces...
35		**Backend**	**10.9 days**	**11/2/21, 8:48 AM**	**11/12/21, 5:00 PM**	**16**
36		AllGoal, Goal Classes	3.9 days	11/2/21, 8:48 AM	11/5/21, 5:00 PM	
37		Entity, Subgoal, Routine, Task, Questions, Reflection	4 days	11/6/21, 8:00 AM	11/9/21, 5:00 PM	36
38		Resources, Labeling and Classification	3 days	11/10/21, 8:00 AM	11/12/21, 5:00 PM	37
39		**Frontend**	**7.4 days**	**11/2/21, 8:48 AM**	**11/9/21, 1:00 PM**	
40		Goals page	3.9 days	11/2/21, 8:48 AM	11/5/21, 5:00 PM	
41		New Goal Page	3 days	11/6/21, 8:00 AM	11/8/21, 5:00 PM	40
42		New Entity Page	3 days	11/6/21, 8:00 AM	11/8/21, 5:00 PM	40
43		Subpages in goals page	0.5 days	11/8/21, 5:00 PM	11/9/21, 1:00 PM	40
44		**Android**	**8 days**	**11/4/21, 8:00 AM**	**11/11/21, 5:00 PM**	
45		Goals page	5 days	11/4/21, 8:00 AM	11/8/21, 5:00 PM	
46		New Goal Page	3 days	11/9/21, 8:00 AM	11/11/21, 5:00 PM	45
47		New Entity Page	3 days	11/9/21, 8:00 AM	11/11/21, 5:00 PM	45
48		Subpages in goals page	3 days	11/9/21, 8:00 AM	11/11/21, 5:00 PM	45
49		**Testing**	**3.5 days**	**11/13/21, 8:00 AM**	**11/16/21, 1:00 PM**	**35;39;44**
50		Test Creation of Goal and other Entity pages	3.5 days	11/13/21, 8:00 AM	11/16/21, 1:00 PM	
51		Test Editing of Goal&Entity Pages	3.5 days	11/13/21, 8:00 AM	11/16/21, 1:00 PM	
52		Test Linking of Entities and Goals	3.5 days	11/13/21, 8:00 AM	11/16/21, 1:00 PM	
53		Test Labeling	3.5 days	11/13/21, 8:00 AM	11/16/21, 1:00 PM	
54		Progress Review Meeting	0.012 days?	11/9/21, 8:00 AM	11/9/21, 8:05 AM	
55		Milestone Meeting	0.012 days?	11/16/21, 8:00 AM	11/16/21, 8:05 AM	
56		Customer Meeting 1	0 days	11/16/21, 4:15 PM	11/16/21, 4:15 PM	34
57		**Group Goal**	**10.406 d...**	**11/12/21, 1:00 PM**	**11/22/21, 4:15 PM**	**56**
58		**Backend**	**5.5 days**	**11/12/21, 1:00 PM**	**11/17/21, 5:00 PM**	
59		Group Goal	4 days	11/12/21, 1:00 PM	11/16/21, 1:00 PM	
60		Integration of goal and members	1.5 days	11/16/21, 1:00 PM	11/17/21, 5:00 PM	59
61		**Frontend**	**6 days**	**11/16/21, 4:15 PM**	**11/22/21, 4:15 PM**	
62		Group Goal page	2 days	11/16/21, 4:15 PM	11/18/21, 4:15 PM	
63		New Group Goal Page	4 days	11/18/21, 4:15 PM	11/22/21, 4:15 PM	62
64		New Entity Page	4 days	11/18/21, 4:15 PM	11/22/21, 4:15 PM	62
65		Subpages in goals page	4 days	11/18/21, 4:15 PM	11/22/21, 4:15 PM	62
66		Members Page	2 days	11/16/21, 4:15 PM	11/18/21, 4:15 PM	
67		**Android**	**6 days**	**11/16/21, 4:15 PM**	**11/22/21, 4:15 PM**	
68		Group Goal page	2 days	11/16/21, 4:15 PM	11/18/21, 4:15 PM	

		Name	Duration	Start	Finish	Predeces...
69		New Group Goal Page	4 days	11/18/21, 4:15 PM	11/22/21, 4:15 PM	68
70		New Entity Page	4 days	11/18/21, 4:15 PM	11/22/21, 4:15 PM	68
71		Subpages in goals page	4 days	11/18/21, 4:15 PM	11/22/21, 4:15 PM	68
72		Members Page	2 days	11/16/21, 4:15 PM	11/18/21, 4:15 PM	
73		Progress Review Meeting	0.012 days?	11/23/21, 8:00 AM	11/23/21, 8:05 AM	
74		**Calendar**	**3.375 days**	**11/23/21, 8:00 AM**	**11/26/21, 11:00 AM**	**57**
75		**Backend**	**3 days**	**11/23/21, 8:00 AM**	**11/25/21, 5:00 PM**	**57**
76		Calendar System	3 days	11/23/21, 8:00 AM	11/25/21, 5:00 PM	
77		**Frontend**	**3 days**	**11/23/21, 11:00 AM**	**11/26/21, 11:00 AM**	
78		Calendar Page	3 days	11/23/21, 11:00 AM	11/26/21, 11:00 AM	
79		**Android**	**3 days**	**11/23/21, 11:00 AM**	**11/26/21, 11:00 AM**	
80		Calendar Page	3 days	11/23/21, 11:00 AM	11/26/21, 11:00 AM	
81		**Analytics**	**5 days**	**11/26/21, 11:00 AM**	**12/1/21, 11:00 AM**	
82		**Backend**	**5 days**	**11/26/21, 11:00 AM**	**12/1/21, 11:00 AM**	
83		Analytics System	5 days	11/26/21, 11:00 AM	12/1/21, 11:00 AM	
84		**Frontend**	**5 days**	**11/26/21, 11:00 AM**	**12/1/21, 11:00 AM**	
85		Analytics Page	5 days	11/26/21, 11:00 AM	12/1/21, 11:00 AM	
86		**Android**	**5 days**	**11/26/21, 11:00 AM**	**12/1/21, 11:00 AM**	
87		Analytics Page	5 days	11/26/21, 11:00 AM	12/1/21, 11:00 AM	
88		Progress Review Meeting	0.012 days?	11/30/21, 8:00 AM	11/30/21, 8:05 AM	
89		**User Profile**	**5 days**	**12/2/21, 8:00 AM**	**12/6/21, 5:00 PM**	**57**
90		**Backend**	**5 days**	**12/2/21, 8:00 AM**	**12/6/21, 5:00 PM**	**34;57**
91		Follow System	5 days	12/2/21, 8:00 AM	12/6/21, 5:00 PM	
92		**Frontend**	**5 days**	**12/2/21, 8:00 AM**	**12/6/21, 5:00 PM**	
93		Profile page	5 days	12/2/21, 8:00 AM	12/6/21, 5:00 PM	
94		**Android**	**5 days**	**12/2/21, 8:00 AM**	**12/6/21, 5:00 PM**	
95		Profile Page	5 days	12/2/21, 8:00 AM	12/6/21, 5:00 PM	
96		Progress Review Meeting	0.012 days?	12/7/21, 8:00 AM	12/7/21, 8:05 AM	
97		**Search Engine**	**7 days**	**12/6/21, 5:00 PM**	**12/13/21, 5:00 PM**	**89**
98		**Backend**	**7 days**	**12/7/21, 8:00 AM**	**12/13/21, 5:00 PM**	**89**
99		User, Goal semantic search	3 days	12/7/21, 8:00 AM	12/9/21, 5:00 PM	89
100		Sorting system	4 days	12/10/21, 8:00 AM	12/13/21, 5:00 PM	99
101		Filter System	4 days	12/10/21, 8:00 AM	12/13/21, 5:00 PM	99
102		**Frontend**	**7 days**	**12/6/21, 5:00 PM**	**12/13/21, 5:00 PM**	

		Name	Duration	Start	Finish	Predeces...
103		Marketplace page	3 days	12/6/21, 5:00 PM	12/9/21, 5:00 PM	
104		Search Results Page	4 days	12/10/21, 8:00 AM	12/13/21, 5:00 PM	103
105		**Android**	**7 days**	**12/6/21, 5:00 PM**	**12/13/21, 5:00 PM**	
106		Marketplace page	4 days	12/6/21, 5:00 PM	12/10/21, 5:00 PM	
107		Search Results Page	3 days	12/11/21, 8:00 AM	12/13/21, 5:00 PM	106
108		Milestone Meeting	0 days	12/13/21, 8:00 AM	12/13/21, 8:00 AM	
109		Customer Meeting 2	0 days	12/14/21, 3:40 PM	12/14/21, 3:40 PM	89
110		**Feed Page**	**7 days**	**12/14/21, 3:40 PM**	**12/21/21, 3:40 PM**	**89**
111		**Backend**	**7 days**	**12/14/21, 3:40 PM**	**12/21/21, 3:40 PM**	**89**
112		Activity Stream System	7 days	12/14/21, 3:40 PM	12/21/21, 3:40 PM	89
113		**Frontend**	**7 days**	**12/14/21, 3:40 PM**	**12/21/21, 3:40 PM**	
114		Feed Page	7 days	12/14/21, 3:40 PM	12/21/21, 3:40 PM	
115		**Android**	**7 days**	**12/14/21, 3:40 PM**	**12/21/21, 3:40 PM**	
116		Feed Page	7 days	12/14/21, 3:40 PM	12/21/21, 3:40 PM	
117		Progress Review Meeting	0.012 days?	12/21/21, 3:40 PM	12/21/21, 3:45 PM	
118		**Notification**	**12 days**	**12/16/21, 3:40 PM**	**12/28/21, 3:40 PM**	**110**
119		**Backend**	**7 days**	**12/21/21, 3:40 PM**	**12/28/21, 3:40 PM**	**110**
120		Notification System	7 days	12/21/21, 3:40 PM	12/28/21, 3:40 PM	
121		**Frontend**	**7 days**	**12/16/21, 3:40 PM**	**12/23/21, 3:40 PM**	
122		Notification Page	7 days	12/16/21, 3:40 PM	12/23/21, 3:40 PM	
123		**Android**	**7 days**	**12/16/21, 3:40 PM**	**12/23/21, 3:40 PM**	
124		Notification Page	7 days	12/16/21, 3:40 PM	12/23/21, 3:40 PM	
125		Progress Review Meeting	0.167 days?	12/28/21, 3:40 PM	12/28/21, 5:00 PM	
126		**HomePage**	**6 days?**	**12/28/21, 5:00 PM**	**1/3/22, 5:00 PM**	**110**
127		Backend	4 days?	12/28/21, 5:00 PM	1/1/22, 5:00 PM	110
128		**Frontend**	**6 days**	**12/28/21, 5:00 PM**	**1/3/22, 5:00 PM**	
129		Homepage	6 days	12/28/21, 5:00 PM	1/3/22, 5:00 PM	
130		**Android**	**6 days**	**12/28/21, 5:00 PM**	**1/3/22, 5:00 PM**	
131		Homepage	6 days	12/28/21, 5:00 PM	1/3/22, 5:00 PM	
132		Milestone Meeting	0.167 days?	1/3/22, 2:03 PM	1/3/22, 3:23 PM	
133		Customer Meeting 3 / Final Presentation	0 days	1/4/22, 2:03 PM	1/4/22, 2:03 PM	126

Software Requirements Specification

Android

- Minimum Android Sdk version: 21 (Devices with SDK 21 or higher can run the application)
- Compile SDK version: 31 (A computer with SDK 31 can compile the application to create '.apk' file)
- Devices need Internet connection to run the application

Backend

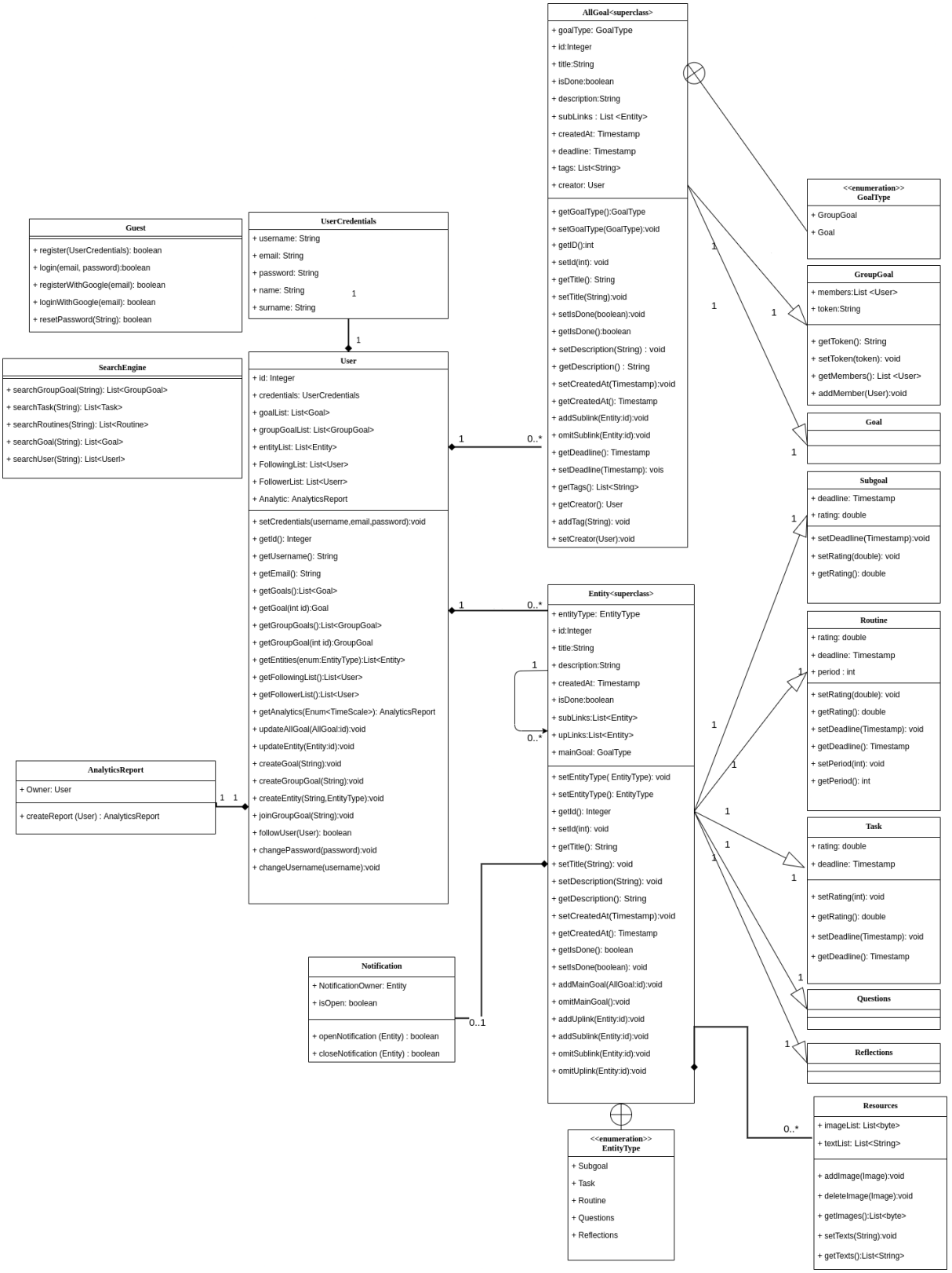
- minimum JDK version: 11
- Gradle

Frontend

- Minimum npm version: 8.0.0
- One of web browsers: Chrome, firefox, safari
- Devices need Internet connection to connect the frontend

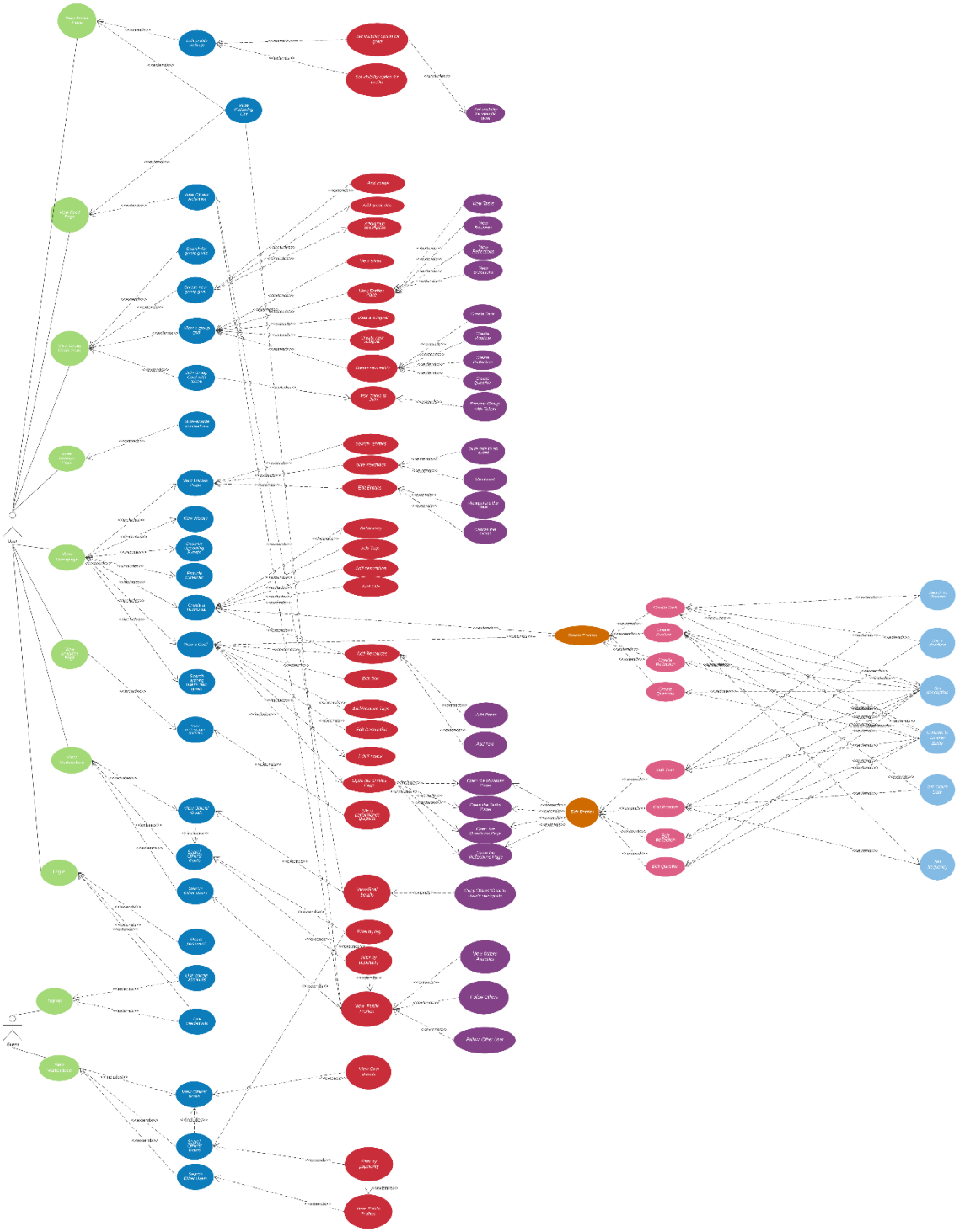
Software design documents (UML diagrams, mockups)

Class Diagram



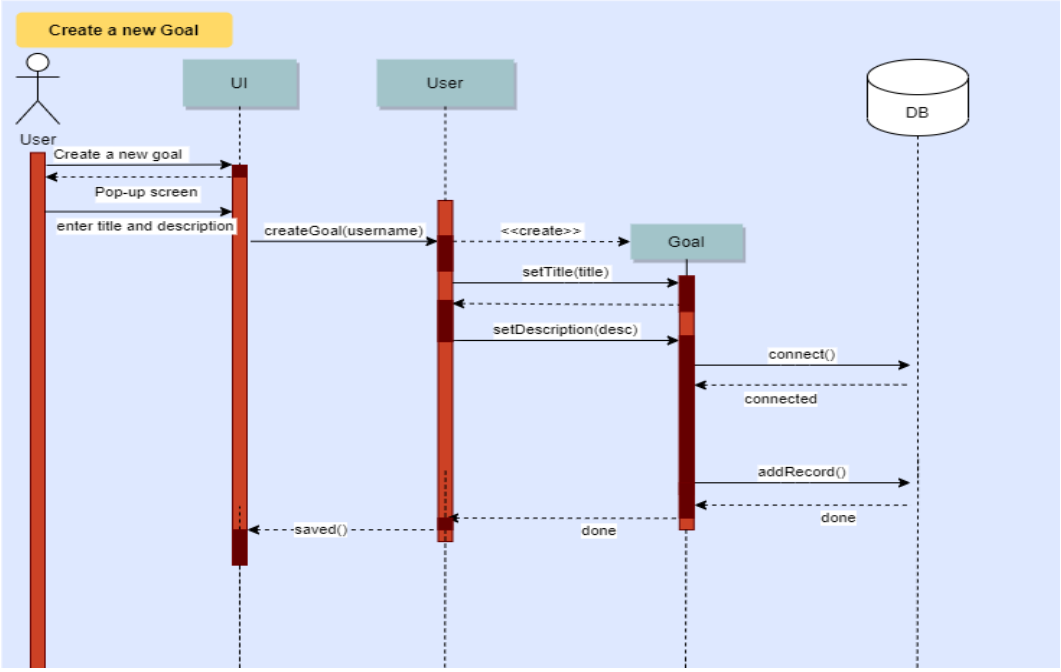
Use Case Diagram

Group12 Use Case Diagram

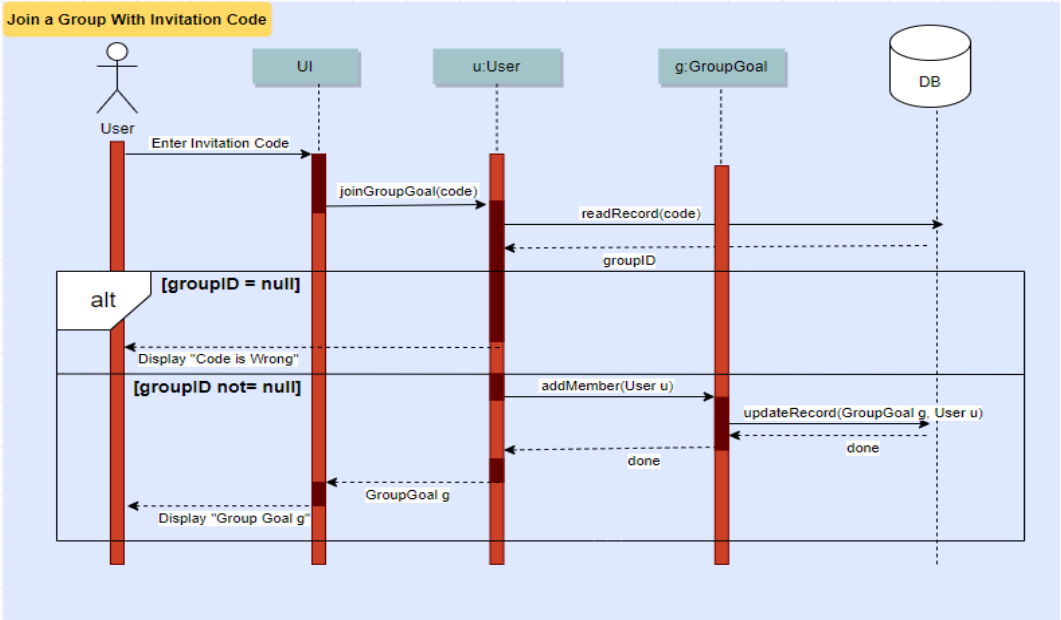


Sequence Diagrams

1. Creating a New Goal

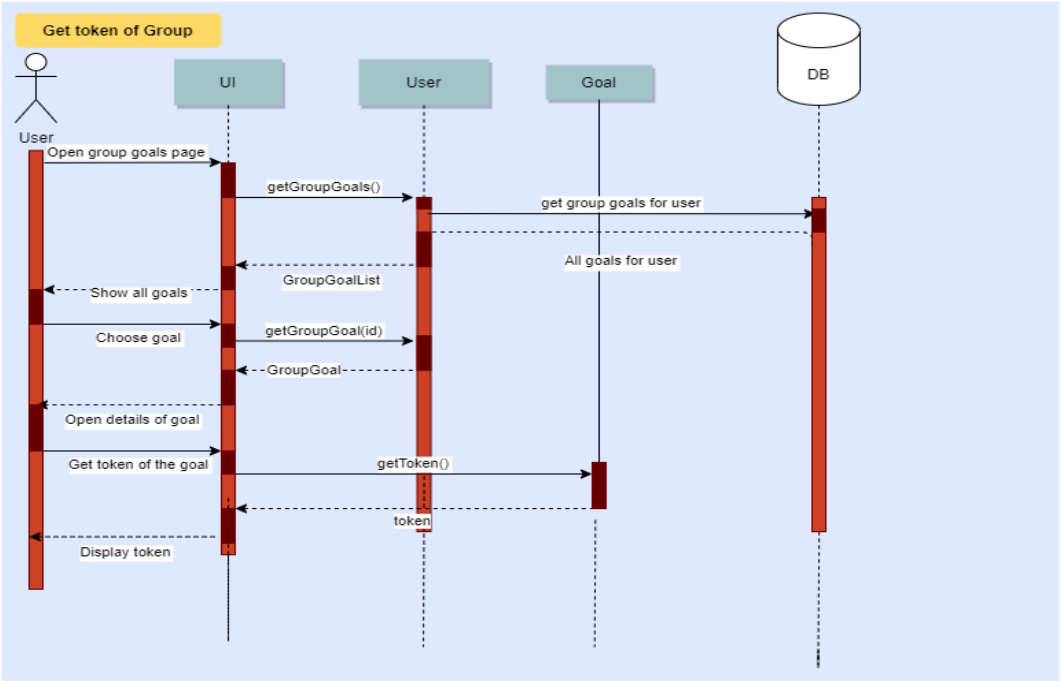


2. Joining a Group With Invitation Code

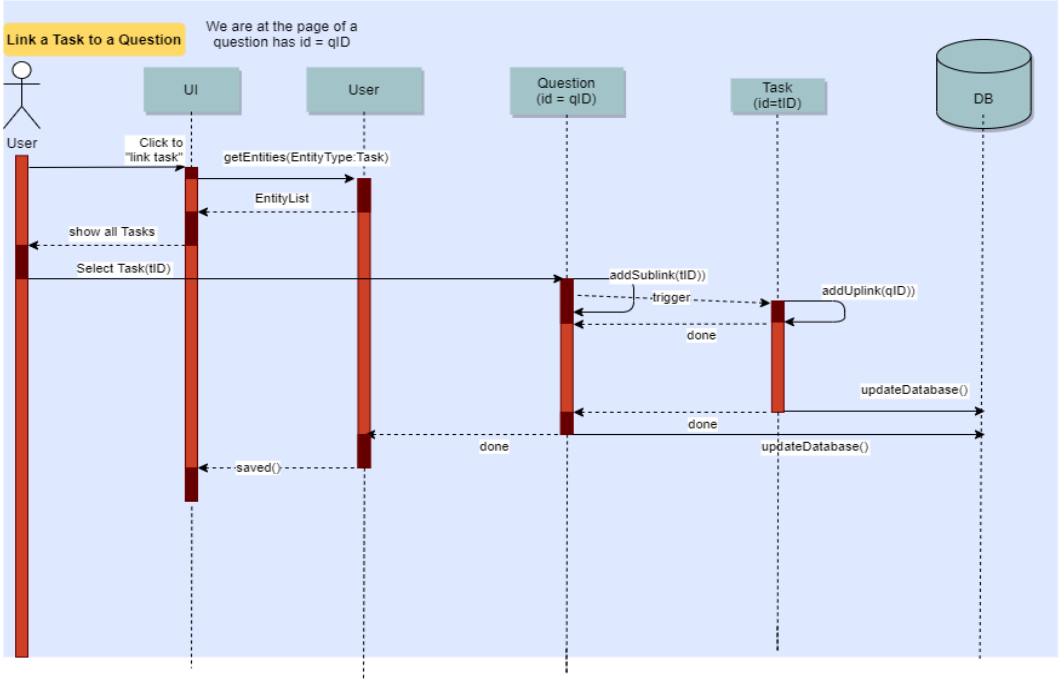


"Invitation Code" and "Token" words are interchangeable. They both represent the same thing.

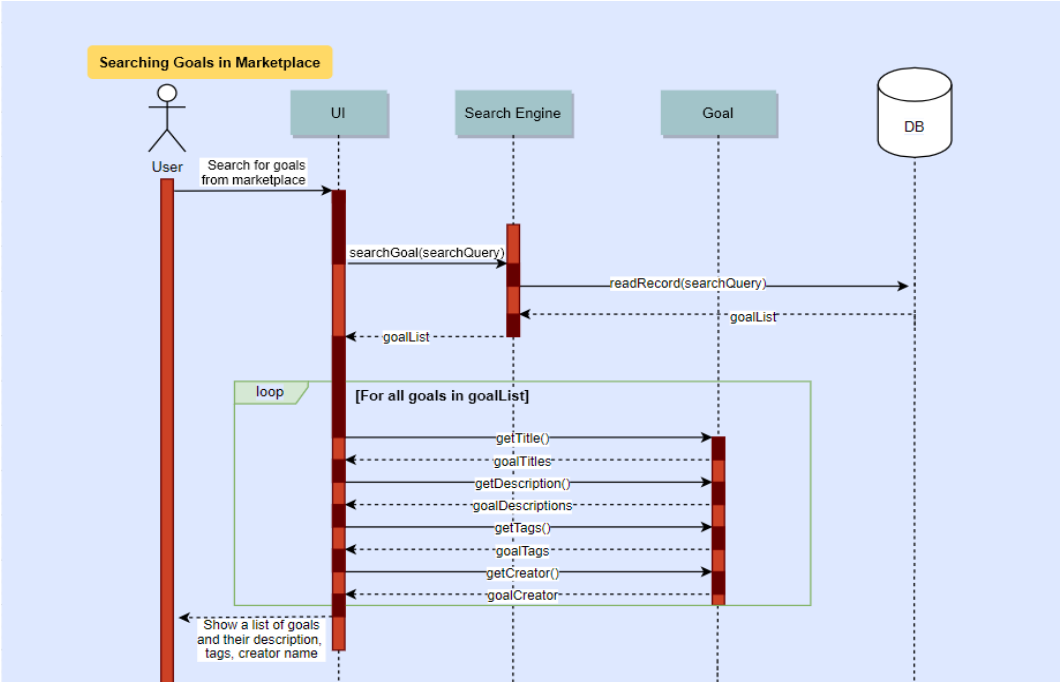
3. Getting token for a group goal



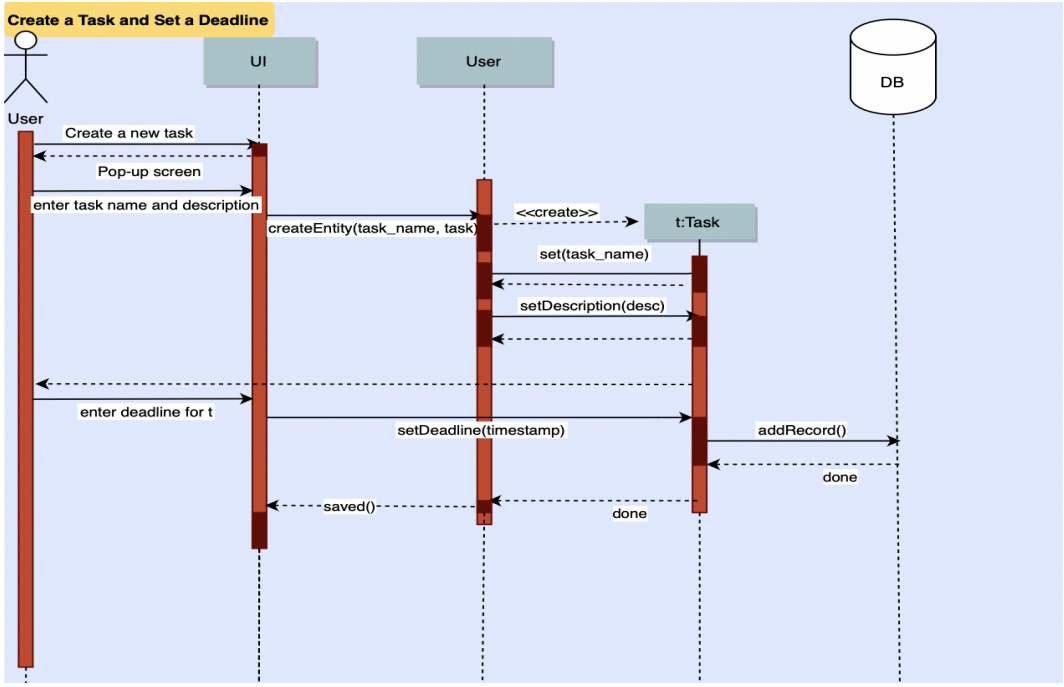
4. Link a Task to a Question



5. Searching Goals in Marketplace

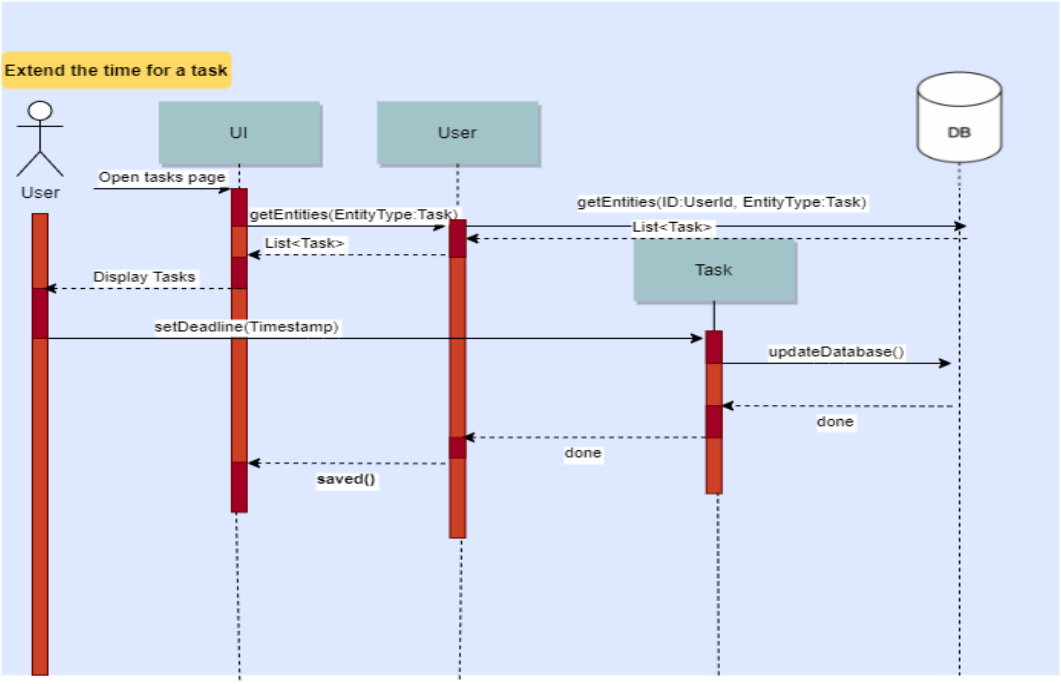


6. Creating a Task and Setting a Deadline

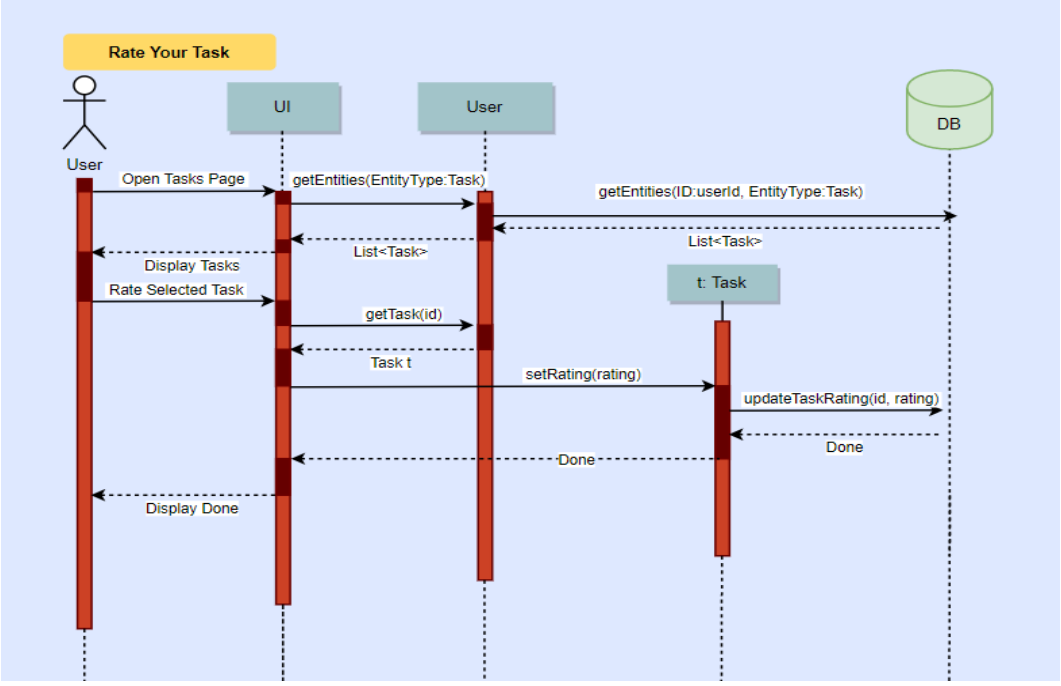


*Creation of a deadline is implemented while creating a task in web design. This diagram is consistent with the mobile design.

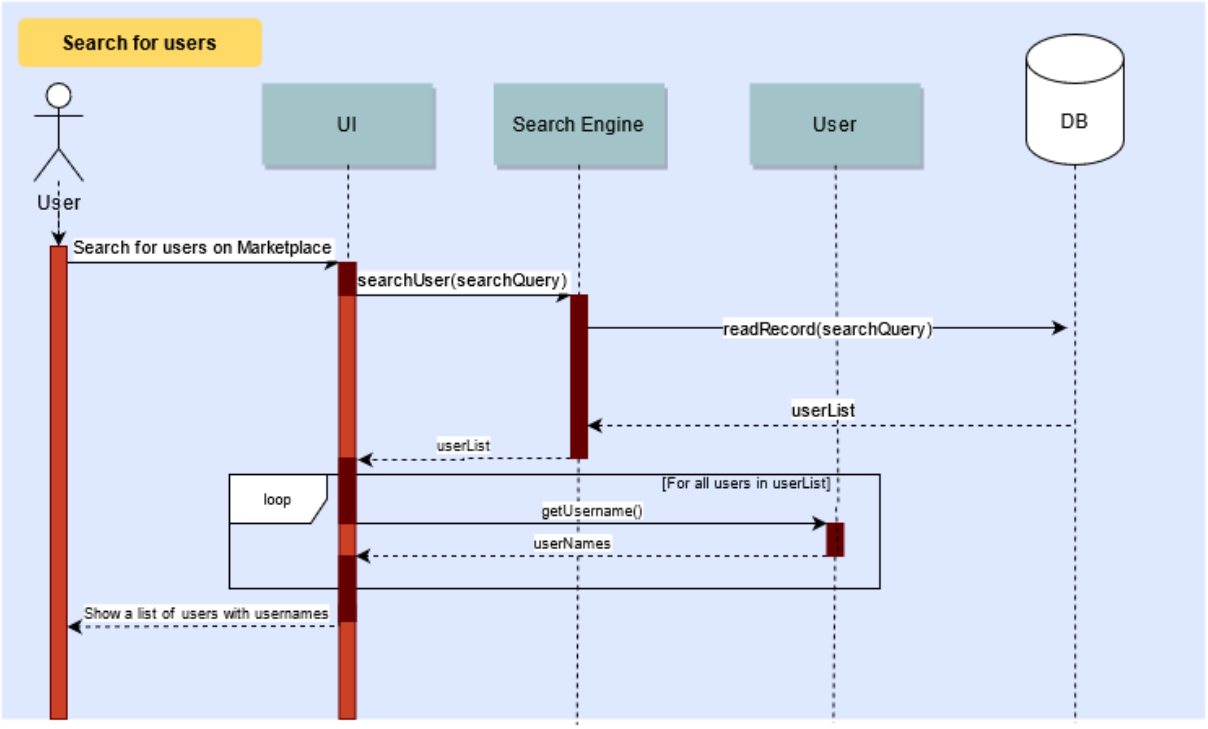
7. Extend Deadline For a Task



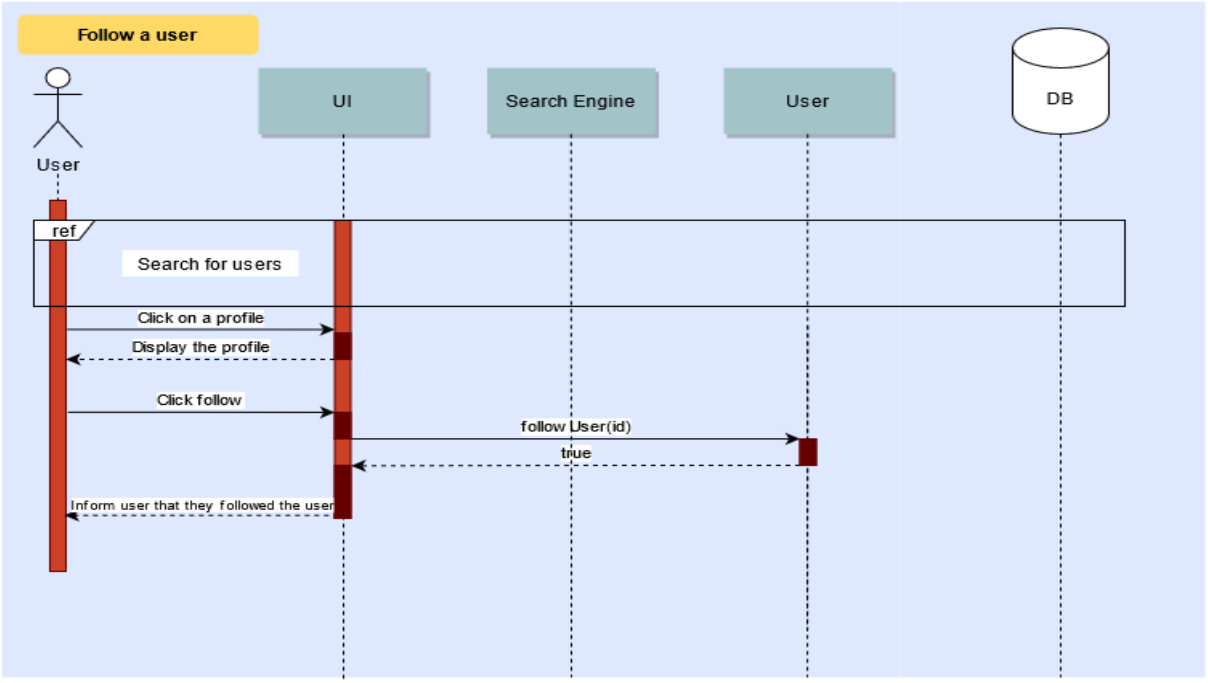
8. Rate a Completed Task



9. Search for Users



10. Follow a User



*draw.io webpage is used for drawings.

REFERENCES

- Spring Boot, https://spring.io/projects/spring-boot
- MediaWiki API, https://www.wikidata.org/wiki/Wikidata:Data_access#MediaWiki_API
- Springfox Swagger, https://springfox.github.io/springfox/docs/current/
- Javax.Mail, https://javaee.github.io/javamail/docs/api/javax/mail/internet/package-summary.html
- Lombok annotator, https://projectlombok.org/
- Mapstruct, https://mapstruct.org/
- JavaBrains Youtube Channel, https://www.youtube.com/channel/UCYt1sfh5464XaDBH0oH_o7Q
- Boğaziçi University Cmpe451 2021Spring Group 11, https://github.com/bounswe/2021SpringGroup11/wiki