

Milestone 1 Report

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CMPE352 Project 3: Art Community Platform

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Table of Contents

CMPE352 Project 3: Art Community Platform	1
Table of Contents	2
1. Executive Summary	3
1.1 What is Our Platform?	3
1.2 Communication Plan	3
1.3 Forming Our Operation	4
1.4 Requirements and Scenarios-Mockups	4
1.5 Schematic Design	4
1.6 Planning Ahead	4
1.7 Future Plans	4
2. List and Status of Deliverables	5
3. Evaluation of Deliverables	6
3.1 Communication Plan	6
3.2 Software Requirement Specification	6
3.3 Scenarios & Mockups	6
3.4 Software Design Documents	6
3.5 Project Plan	7
3.6 RAM	7
4. Evaluation of tools and processes	8
4.1 GitHub	8
4.2 Slack	8
4.3 Lucidchart	8
4.4 Zoom	8
4.5 Figma	8
4.6 ProjectLibre	9
5. Individual Work Table	10

1. Executive Summary

We are a 12-people group formed for CMPE352 lecture to plan, design and implement an application for which specifications are decided by our lecturer. This report is the project's first milestone report. It reflects what we have done so far and a tentative view of how we will proceed for the upcoming days.

1.1 What is Our Platform?

The platform provides users a virtual environment that connects artists and art consumers with each other. It can be used by everyone, but the extent of using the platform depends on whether the visitor is registered or not and also the registered user's level. It will be available on Android and Web.

A guest user can view non-customized recommended content and do semantic search of exhibitions, art items, users, discussion posts with filtering available. They can register to the platform or login if they already have an account. While registering, the user chooses amongst two types of users: Artist or regular user. The home page of these users is filled with non-customized.

Registered users can bid to an art item, join physical exhibitions, bid to an art item, write forum posts, write comments, follow an artist, report copyright infringement, request verification, wander around artists' online galleries and art items, view discussion posts and comments, annotate and bookmark content.

An artist has additional features to regular registered users. They can create auctions, exhibitions, online galleries, issue copyright, and share singular art items.

The platform uses some kind of awarding mechanism. Users have levels and some activities are restricted until some level of users, specified in diagrams and requirements in detail.

1.2 Communication Plan

We mostly use our informal Slack channel and Whatsapp for non-regulated meeting arrangements, also for urgent communication. We once held a hybrid meeting for use case diagrams. We hold our weekly meetings via Zoom. After distributing to-do items until our decided next meeting, each subgroup arranges their own way of communicating and functioning. Intergroup communication happens via Zoom, WhatsApp and as a wrap-up from Github issues (with a more technical jargon).

1.3 Forming Our Operation

We first customised the platform we were to use: Github wiki page and issues. Through time, with some feedback from TAs we were able to write more professional, descriptive and structured issues. We held meetings with an optimised amount of attendance, usually fitting everyone's schedule. We added templates for frequently used documentations. We added effort trackers. We also compiled research materials. We gave our platform name as Jane Doe since we are still in the process of finding a name for our precious product.

1.4 Requirements and Scenarios-Mockups

Finishing the initial orientations of the team and building its infrastructure, we started defining what we will be doing. We first listed the requirements based on the generic project description initially given to us. We divided it into subtasks and reviewed each other, updated many times, revised many times. We listed questions in this process that we thought were ambiguous and asked them in the customer meeting, compiling it to a report which currently can be found on our wiki page. We did the revisions after that report in teams and again reviewed all the updates together. After tidying requirements to the extent we want and mostly bringing it to its final state, we created user stories and mock-ups to concretize what is set in requirements.

1.5 Schematic Design

After deciding on the specifications, we passed to the stage of deciding how everything could be done with the platform defined in requirements. We started creating the use case diagram together, then did the class diagram and finally did the sequence diagrams. The cumulative work required fixations on the previous diagram frequently.

1.6 Planning Ahead

We summarised everything we have done from the beginning of the course and planned tentatively how our future schedule would be, demonstrating all these with RAM and Gantt charts.

1.7 Future Plans

We believe that there is room for improvement in our deliverables. In some cases our documents are over complicated and things can be simplified. We also need to make sure that the deliverables fit each other exactly.

Our plan is to work on improving our deliverables while we work on the second half of the semester where we will use the knowledge we have gained to create a demo application. In the long run, the deliverables we showcase in this report and the practical knowledge we will gain from the demo application will be used during the CMPE451 course when we are building the app we are designing. A detailed tentative plan for the rest of the semester, and for CMPE451 in the next semester can be found in the later sections.

2. List and Status of Deliverables

Deliverable	Status	Completion Time
Communication Plan	Complete	2022-03-07
Software Requirement Specification	Complete	2022-04-15
Scenarios & Mockups	Complete	2022-04-15
Software design documents(use case, class and sequence diagrams)	Complete	2022-04-15
Project plan	Complete	2022-04-15
RAM (Responsibility Assignment Matrix)	Complete	2022-04-15

3. Evaluation of Deliverables

3.1 Communication Plan

Our communication plan consists mainly of weekly meetings on Zoom and collaboration through our Slack workspace. We sometimes had more than one meeting in a single week, especially for the last couple of weeks where we were very busy with the design tasks. We managed to successfully coordinate our meetings so that as many team members as possible could attend to them. The decision of meeting times has been made through our Slack channels, sometimes during the previous meeting, or on WhatsApp when the need arose. We also tried to hold some meetings hybrid as in that some team members have met face to face while others who could not be present at the decided location attended the meeting through Zoom. It enabled those who were meeting face to face to work more efficiently with each other and communicate in a more clear way, but others attending online had some difficulties following the discussions due to not being able to hear everyone. Our GitHub repository is also used to communicate about and track the progress of specific tasks through the use of issues.

3.2 Software Requirement Specification

The requirements for our software have been decided upon collaboratively and updated regularly over many weeks whenever new ideas have emerged and old ideas have been deemed unnecessary or irrelevant. We anticipate that this pattern will continue throughout the development phase. The further planning and implementation of our project will heavily depend on the requirements.

3.3 Scenarios & Mockups

We have created three scenarios and associated mockups for our project. We believe that our choice of scenarios reflect the key functionalities of our software and our mockups visualise the necessary steps in a clear and understandable way. We updated some parts of our scenarios and mockups in accordance with the updates made to the requirements.

3.4 Software Design Documents

The use-case and class diagrams for our software project have been designed in a collaborative manner by all team members where each member added at least an use case and class to diagrams. Each sequence diagram has been created and reviewed by different team members. We paid special attention to making sure that our diagrams are coherent with each other, yet at the same time reflect the design of our project on different abstraction levels and from different points of view.

3.5 Project Plan

Our project plan lists the implementation steps that need to be fulfilled in order to obtain a fully functioning software product in line with the requirements and the design. It consists of tasks that are to be done by different subteams. It also states candidate completion dates for each task.

3.6 RAM

The RAM details the contributions to the project by each team member. There are 5 different contribution categories reflecting the level of effort performed by each team member. The RAM also includes responsibilities for future tasks and provides a roadmap for what needs to be done in order to achieve the goals stated by the project plan.

4. Evaluation of tools and processes

4.1 GitHub

GitHub is a powerful tool to collaborate on projects. The most important feature is the version control system which lets you track all the changes. The markdown allowed us to easily write formatted texts in wiki pages, issues, and comments. The advantage of it was easily getting used to it. Another feature worth mentioning is the issue system, which can be easily customised for our needs. Labels let you easily understand the nature of the issues and with a simple filtering the issues of some certain type can be found. Another helpful feature is integration with other platforms, especially Slack. This way Slack is notifying us about the changes in our repository. Generally GitHub greatly facilitated our work. So, we can say GitHub is one of the main tools used up until now and that will be used in our future work.

4.2 Slack

Slack is a tool used for communications. Slack chat provides both group messages, as well as direct messages. For the group messages there are special dedicated channels which can be created according to our needs. Users can react to messages, polls can be created which is not allowed in many other applications. Slack is a very useful tool for communications and is going to be used in the future.

4.3 Lucidchart

Lucidchart is a powerful diagramming tool with a great interface. It was used for the design diagrams. The advantage of using it is effective collaboration of teams to build the desired diagrams together. Thanks to this tool we are able to work collaboratively in real-time. Another helpful feature is templates and a large number of different shapes for all kinds of purposes.

However, some features and templates can be obtained only in the pro version.

4.4 Zoom

Zoom is used for our online communications. It is a convenient tool with an easy interface. Since we were using it since 2020, when the Covid-19 was discovered, we got used to it and preferred to use it. Most of the group projects were successfully completed with the help of Zoom. Even though it is a free software, group meetings can only last for 40 minutes.

4.5 Figma

We have used Figma to create mockups for scenarios. It is a very powerful tool with multiple quality of life features implemented for collaboration. We have used its built-in voice communications while working on mockups. With the help of community created icons and

components, we easily created a template for mockups and sped up our process so that one change in a page or component is present on each mockup for scenarios.

4.6 ProjectLibre

ProjectLibre was used for project planning. In the Project Plan, there were various elements in addition to the planned events. Some of those are the beginning and the ending dates, duration, predecessors and devoted resources of a certain event. ProjectLibre was a great tool for including all of these elements and showing them together. In addition to that, it was of great importance that ProjectLibre was able to create the Gantt Chart automatically, according to the dates and resources. Even though it had a buggy interface and caused some issues from time to time, ProjectLibre was still a helpful option for planning our project.

5. Individual Work Table

STUDENT	WORKS DONE INDIVIDUALLY
Ali Can Milani	<ul style="list-style-type: none"> ● Wiki: <ul style="list-style-type: none"> ○ Setting the home page and updating sidebar (#10) ○ Creating personal wiki pages for everyone (#3) ○ Filling my personal wiki page (#32) ● Scenarios and Mockups: <ul style="list-style-type: none"> ○ Working on the scenario 2 and adding acceptance criteria to the scenario 2 (#50) ○ Reviewing the mockup. ● Requirements: <ul style="list-style-type: none"> ○ Organising the table of contents and adding anchor links (#68) ○ Reviewing User and System requirements (#64) ● Use Case Diagram: <ul style="list-style-type: none"> ○ Adding Annotation cases (#77) ○ Reviewing the use cases (#85) ● UML Class Diagram: <ul style="list-style-type: none"> ○ Adding Discussion Forum's class diagrams (#91) ● Sequence Diagram: <ul style="list-style-type: none"> ○ Adding Discussion Forum's sequence diagram (#96) ○ Reviewing Editing a profile sequence diagram (#114)
Atilla Türkmen	<ul style="list-style-type: none"> ● Personal Wiki Page: Created personal wiki page. (#37) ● Communication Plan: Prepared the communication plan. (#4) ● Repository Search: Added VS Code repo to repository search page. (#11) ● Scenarios and Mockups: Added acceptance criteria to the scenario about copyright infringement reporting and changed the requirements accordingly. (#46) ● Reviewed the mockups for this scenario. ● Requirements: Contributed to glossary by adding missing terms. (#66) ● Review requirements after customer questions. (#70) ● Use Case Diagram: Added copyright and verification use cases to use case diagram. ● UML Class Diagram: Completed Notification and Comment classes. (#94) ● Created notification engine class in UML class diagram. (#97) ● Meeting Report: Take notes in meeting 9 and write notes in wiki. ● Sequence Diagram: Created sequence diagram for adding art items. (#113). ● Reviewed sequence diagram for writing comment. (#112) ● RAM: Filled my column in RAM document. ● Milestone Report: Filled my part in the individual work table. ● Documented who made which sequence diagram and who reviewed it.

Aziza Mankenova

- Create a [personal wiki page \(#23\)](#)
- Customize the [labels](#), by changing the colors and adding new labels after exploring different repositories ([#9](#))
- Explore different well-written GitHub repositories, and add the ones I liked the most to the [Repository Research\(#25\)](#)
- **Study git** as a version management system through videos and other internet resources and add most common git commands to [Using Git and GitHub \(#35\)](#)
- Create a template for [weekly efforts\(#31\)](#)
- Do research on documentation of requirements, document our [non-functional requirements](#) ([#43](#))
- Work on a [scenario #2](#) regarding the semantic search and discussion with a subgroup, come up with some customer questions. Document the steps and preconditions of the scenario #2, ([#50](#))
- Document the **meeting notes** as a note-taker for the [week #3](#).
- **Mockups:**
 - reviewed the [mockups of the scenario #2](#)
 - Update the [mockups of scenario #1](#) according to the given feedback.([#72](#))
- Continue work on **requirements** that required modification in accordance with the answers of the customer. Worked on the answer of the first question in the [customer report \(#69\)](#)
- Review the update in **requirements** regarding the answer to the seventh question in the customer report ([#80](#))
- **Use Case Diagram:**
 - Fill out the Use Case Diagram for the "Following" use case ([#78](#))
 - Work on and review requirements about discussion forum and communications, and the use case diagram with a group. Finalized use case diagram with the first group.([#78,#83,#85](#))
- Fill in the class of the "registered user" in the [UML Class Diagram\(#88\)](#)
- Work on and review the changes in **requirements and use case diagram** about events([#98](#))
- Do revisions regarding the **requirements** about "Exhibitions" ([#111](#))
- Review the requirements regarding the merge of classes about Forum and Comment ([#115](#))
- After reviewing the use case diagram, and class diagrams I created a **sequence diagram** for "editing a profile". Before that, I had some research about the sequence diagrams.([#114](#))
- Do the revisions of the **sequence diagram** of physical exhibition creation([#110](#))
- Add the action items to the **RAM** sheet. Design and format was customized. Equally assign the future action items in the [RAM\(#120\)](#). Completed the review of the Project Plan prepared by teammates.
- The **milestone report**, contributed to the evaluation of tools and processes, and reviewed the other parts completed by other team members.([#127](#))
- Attended all of the group meetings and problem sessions

Cahid Arda Öz

- **Wiki:** Maintaining the Wiki by adding pages or updating the sidebar ([#10](#), [#41](#)). Added a personal wiki page ([#21](#)).
- **Git Research** ([#39](#))
- **Requirements:** Adding the non-functional requirements section ([#43](#)) and then working on a general review and update of the document to improve coverage and cohesion ([#48](#)). Worked on simplifying the search and filtering related requirements ([#79](#)). Worked on adding admin related requirements ([#89](#)).
- **Similar project research** ([#45](#))
- Going over the project description to make sure that we cover every requested feature and generate a list of unclear points to ask the customer ([#48](#)). A [report from this analysis](#) and the [answers to the questions from this report](#) are available on our wiki.
- **Scenario:** Reviewed the scenarios and fixed the acceptance criteria after the major update to the requirements ([#58](#))
- **Use Case Diagram:** Created the “event creation” cases for the initial draft ([#73](#)). Then worked on finalising this draft and added it to the wiki ([#84](#)). Fixed the admin related sections ([#89](#)). Then worked on finalising the use case diagram by rearranging use cases ([#124](#))
- **Class Diagram:** Worked on the admin user class ([#89](#)). Reviewed and proposed ways of simplifying the class diagram ([#91](#))
- **Sequence Diagram:** Worked on creating a diagram for the case where the admin inspects a copyright infringement report and removes the item ([#93](#)). Reviewed the sequence diagrams prepared by my team members.
- **Planing:** Worked on creating the list of activities until the milestone 1 for RAM and transferred these to Project Plan document on Project Libre ([#133](#)). Filled my own section in RAM.
- **Milestone:** Worked on the status report and added my own sections in the individual contribution diagram.

Can Atakan Uğur

Research

- Researching and reporting high-quality Github repositories ([#26](#), [#27](#))
- Making research on Annotations and reporting the results ([#104](#), [Annotations Research Report](#))
- Studied relationships on UML Class Diagrams during a group meeting.

Infrastructure

- Customising issue labels ([#14](#))
- Reviewing README file ([Pull Request Review](#))
- Creating a personal Wiki page ([#15](#), [#17](#))
- Preparing the Meeting Notes Template ([#16](#), [#18](#))
- Creating template for the weekly personal effort reports ([#31](#))
- Regularly keeping the sidebar well-formed and editing the homepage ([#47](#))

Requirements

- Adding ideas for requirements to a collaborative document ([#40](#))
- Working on User Requirements ([#42](#))
- Updating the requirement elements related to the customer's answer on copyright issues ([#62](#))
- Reviewing all updates after customer's answers ([#63](#), [#70](#))
- Adding *Annotations* part to Requirements ([#105](#))

	<p>Customer Questions & Examining Project Description</p> <ul style="list-style-type: none"> • Contributing to Customer Questions (#57) • Editing, reviewing and adding the Project Analysis to the repository (Project Analysis Report) • Note-taking during the Customer Meeting and preparing the report (#59) <p>Scenarios</p> <ul style="list-style-type: none"> • Documenting the scenario of copyright infringement reporting for mobile (#46) • Finalising Scenario 3 after completing the Software Design (#126) <p>Mock-ups</p> <ul style="list-style-type: none"> • Updating mock-ups for Scenario 3 according to TAs feedback and final version of requirements (#72, #125) <p>Use Case Diagram</p> <ul style="list-style-type: none"> • Creating the basic Use Case Diagram template (#71) • Adding "Bidding" use case to the Use Case Diagram (#75) • Updating "Annotation" use case (#106) • Reviewing the final version of the Use Case Diagram (#85) <p>UML Class Diagram</p> <ul style="list-style-type: none"> • Preparing the draft for the Class Diagram and planning the work sharing (#86) • Adding fundamental classes to the basic template • Completing "Artist" and "ArtItem" classes (#87) • Adding "Annotated" interface with necessary functionality (#107) • Finalising the Class Diagram by reconstructing all relationships on a meeting, collaboratively <p>Sequence Diagrams</p> <ul style="list-style-type: none"> • Reviewing the sequence diagram for bidding (#99) • Creating the sequence diagram for annotating (#108) <p>Planning</p> <ul style="list-style-type: none"> • Completing the Project Plan while benefiting from the documents of other members (#129, #133, Project Plan) • Filling my individual part in the RAM (#130) <p>Milestone Report</p> <ul style="list-style-type: none"> • Reviewing every aspect of the report • Fixing grammar errors in the report • Contributing to <i>Evaluation of Tools and Processes</i> part (#127) • Filling my part in the individual work table
<h2>Demet Yayla</h2>	<ul style="list-style-type: none"> • Create personal wiki page. (#12) • Prepare a communication plan. (#4) • Research and report nice Github repositories (#11) • Prepare analysis on system requirements and push to the repositories (#44) • Creating personal effort trackers (#41) • Scenarios and Mockups: <ul style="list-style-type: none"> ◦ Documenting the Scenario 1: Create Event and noting down questions for Customer Meeting (#49)

	<ul style="list-style-type: none"> ○ Reviewing and updating Mockup 3 (#125) (#126) ● Update Use Case Scenerio for Attending Events and geotagging (#74) ● Requirements: <ul style="list-style-type: none"> ○ Updating requirements according to Customer Meeting Report for question 3 (#65) ○ Modify Annotation in Requirements (#105) ● UML Class Diagram: <ul style="list-style-type: none"> ○ Implementing "Bid", "AuctionInfo" and "Auction" classes in UML Class Diagram (#90) ○ Add "HomePage" class to class diagram (#100) ○ Add "Annotated" interface to class diagram (#107) ○ Prepare the draft for the UML Class Diagram and plant the work sharing (#86) ○ Reviewed adding recommendation class to UML Class Diagram (#102) ● Use Case Diagram: <ul style="list-style-type: none"> ○ Creating the Use Case Diagram and adding it to the Wiki (#84) ○ Review modifying Annotations in Use Case Diagram (#106) ○ Colouring the use cases based on features (#116) ● Create meeting notes 8 (#101) ● Sequence Diagram: <ul style="list-style-type: none"> ○ Review "Annotate" usecase in Sequence diagram (#108) ○ Creating sequence diagram for bidding (#99) ○ Creating sequence diagram for auction (#128) ● Milestone report preparation (#118) <ul style="list-style-type: none"> ○ Wrote executive summary ○ Reviewed some diagrams to finalise deliverables ○ Added my works done individually
Erim Erkin Doğan	<ul style="list-style-type: none"> ● Updated README.md file. (#7) ● Created personal wiki page. (#24) ● Researched about interesting GitHub repositories. (#30) ● <u>Requirements:</u> <ul style="list-style-type: none"> ○ Updated requirements draft in parts related to customer's answer to Question 4. (#67) ○ Divided "Discussions" section to "Discussion Forum" and "Communications" in requirements. (#83) ○ Modified "Exhibitions" to "Events" and expanded the requirements about "Events". (#111) ○ Updated requirements so that Discussion Forum "threads" are changed to "replies" to make it consistent with diagrams. Added "Reply" and "Post" to Glossary. (#117) ● <u>Scenario & Mockups:</u> <ul style="list-style-type: none"> ○ Reviewing scenarios and preparing mockups for scenarios with Musa Şimşek, Mehmet Emin İpekdal. (Scenario 1, Scenario 2, Scenario 3, #52, #53, #54, #55, #56) ○ Updating Scenario 1 with new requirements indexes and texts, merging some action items. (#121) ● <u>Use Case Diagram:</u> <ul style="list-style-type: none"> ○ Added comment and discussion forum use cases to use case diagram. (#76) ○ Reviewed the use case diagram and added missing features to it: Editing/Removing forum threads, replies

	<p>and editing profile. (#85)</p> <ul style="list-style-type: none"> • Class Diagram: <ul style="list-style-type: none"> ○ Added “Recommendation” class to class diagram. (#102) ○ Simplified and merged "Comment" and "ForumThread" classes in class diagram, realigned class objects with Musa Şimşek. (#115) • Sequence Diagram: <ul style="list-style-type: none"> ○ Created sequence diagram for "Create Physical Exhibition" which encapsulates creating a physical exhibition, modifying event poster and adding collaborators. (#110) ○ Created sequence diagram for "Edit Online Galleries" encapsulating editing information of online galleries and removing collaborators. (#134) • Project Planning: Worked on plans for next semester for CmpE451. • RAM: Filled the rows according to my efforts. Added rows tracking Milestone 1 Report and requirements. • Milestone Report: <ul style="list-style-type: none"> ○ Created List and Status of Deliverables. ○ Reviewed Evaluation of Deliverables. ○ Added a paragraph about Figma to Evaluation of Tools and Processes. • Wrote meeting report for Meeting 6. (#82)
Güney Izol	<ul style="list-style-type: none"> • Create our Slack workspace (#8) • Create personal wiki page (#19) • Create effort tracking wiki page • Do research for a similar repository (#20) • Learn and write about Git and GitHub • Create the scenario for creating events (#49) • Contribute to the requirements (#64, #67) • Write the meeting notes for the meeting #7 • Contribute to the use case diagram in the team meetings and also individually (#73) • Contribute to the class diagram in the team meetings and also individually (#87, #100, #102, #103) • Create sequence diagram for writing comments (#112) • Create sequence diagram for registration (#131) • Create sequence diagram for logging in (#132) • Write the evaluation of deliverables (#122)
Hasan Bingölbali	<ul style="list-style-type: none"> • Personal wiki page(issue #28 , result) • Research about useful repositories(result) • Research about similar websites(result) • Analysis on system requirements(with Demet Yayla and Hasan Bingölbali) (issue #44, result) • Updating requirements according to Customer Meeting Report for question 6 (#70) and review Demet’s update for question 3(#65) • Work on the whole Use Case Diagram with some of the other teammates • Review Atilla’s sequence diagram (issue #113) • Mockups: <ul style="list-style-type: none"> ○ Reviewed and created the scenario #2 ○ Work on the UML Class Diagram in order to expand on the searching and filtering features(with Hasan Bingölbali) (issue #114)

	#95)
Mehmet Emin İpekdal	<ul style="list-style-type: none"> Created personal wiki page: #38 Added Tensorflow repo to repository search page. Result Added the non-functional requirements section (#43) Prepared all three scenarios' mockups and then updated them according to later discussions with TA (with Erim Erkin Doğan and Musa Şimşek) (issues #51 , #52 , #53 , #54 , #55 , #56 ; results #1 , #2 , #3) Transferred the time tracking information to new page result On Use Case Diagram, completed the attending events and geotagging parts with Demet Yayla #74 Updated the requirement elements related to the customer's answer for question 7 #80 Took the meeting #5's notes #81 Worked on the whole Use Case Diagram with some of the other teammates(Aziza Mankenova, Demet Yayla, Atilla Türkmen, Güney İzol, Cahid Arda Öz, Musa Şimşek) On UML, completed the "Notifications" and "Comment" classes #94 On UML, created Notification Engine class #97 Updated the mockups according to TA's feedback (issues #51 , #52 , #53 , #54 , #55 , #56 ; results #1 , #2 , #3) Added the activity items to the RAM sheet with Can Atakan Uğur, Cahid Arda Öz andAziza Mankenova #120 Created sequence diagram for Copyright Reporting #135
Musa Şimşek	<ul style="list-style-type: none"> Personal wiki page(issue #3 , result) Research about useful repositories(issue #11 , result) Research about similar websites(result) Analysis on system requirements(with Demet Yayla and Hasan Bingölbali) (issue #44, result) Preparing scenario mockups(with Erim Erkin Doğan and Mehmet Emin İpekdal) (issues #51 , #52 , #53 , #54 , #55 , #56 ; results #1 , #2 , #3) Update on the requirements according to the results of the customer meeting (issue #63 , result) A temporary update on Use Case Diagram about the searching and filtering features (issue #79) Work on the whole Use Case Diagram with some of the other teammates(Mehmet Emin İpekdal, Aziza Mankenova, Demet Yayla, Atilla Türkmen, Güney İzol, Cahid Arda Öz) Work on the UML Class Diagram in order to expand on the searching and filtering features(with Hasan Bingölbali) (issue #95) Last shapes of Forum and Comment parts of UML Class Diagram(with Erim Erkin Doğan) (issue #115)

Rafet Oğuz Pançuk

- Personal Wiki Page
- Create the [scenario](#) for creating events (#49)
- Complete the glossary in requirements page (#66)

Requirements

Table of Contents

- Glossary
- 1. Functional Requirements
 - 1.1. User Requirements
 - 1.1.1. Sign Up
 - 1.1.2. Sign In
 - 1.1.3. Guest Users
 - 1.1.4. Threads
 - 1.1.5. Events
 - 1.1.6. Copyright
 - 1.1.7. Account Verification
 - 1.1.8. Bidding
 - 1.1.9. Home Page
 - 1.1.10. Profile Page
 - 1.1.11. Reporting and Blocking
 - 1.1.12. Communications
 - 1.1.13. Annotations
 - 1.1.14. Search and Filter
 - 1.1.15. Admin User
 - 1.2. System Requirements
 - 1.2.1. Registered User/Artist Data
 - 1.2.2. Threads
 - 1.2.3. Events
 - 1.2.4. Copyright

- [1.2.5. Account Verification](#)
- [1.2.6. Bidding](#)
- [1.2.7. Recommendation System](#)
- [1.2.8. Artistic Value Calculation](#)
- [1.2.9. Annotations](#)
- [1.2.10. Search and Filter](#)
- [2. Non-Functional Requirements](#)
 - [2.1 Annotations](#)
 - [2.2 Accessibility](#)
 - [2.3 Performance and Reliability](#)
 - [2.4 Security](#)
 - [2.5 Legal and Ethical Issues](#)

Glossary

- **Artistic Values:** Determined based on an internal point system calculated using the user's various activities.
- **Guest User:** A user with restricted abilities who have not signed in to the platform.
- **Home Page:** The main page of the platform which welcomes the users.
- **Interaction Level:** A number every user has, that is measured by the number of replies/shares the user has on the platform.
- **Physical Exhibitions:** Art exhibitions created by users with sufficient artistic value points that take place in a physical location.
- **Online Galleries:** A collection of pieces of art created by users with sufficient artistic value points that take place on the online platform.
- **Popularity Level:** A number every user has that is measured by the number of followers, copyrighted items, and art exhibitions user has on the platform.
- **Registered User/Artist:** Users or artists who have signed in with an email address and password to the platform.
- **User Level:** A number every user has that is calculated by using the user's interaction and popularity levels.
- **Verified Account:** A user account verified on the user's demand according to the calculated artistic values.
- **Thread:** A thread of strings. It either represents a comment section which belongs to a art item, an exhibition or a post on the discussion forum
- **Reply:** A reply written by a registered user under a thread.

1. Functional Requirements

1.1 User Requirements

1.1.1. Sign Up

- 1.1.1.1: Guest users shall be able to register for an account by providing an email address and a password.
- 1.1.1.2: Duplicate email addresses shall not be accepted.
- 1.1.1.3: Guest users who are trying to sign up shall also pick a unique username to complete the registration process.
- 1.1.1.4: Duplicate usernames shall not be accepted.
- 1.1.1.5: Guest users could provide extra information while signing up, like name, surname, location, age.
- 1.1.1.6: Guest users shall choose their account type, "Artist" or a "Regular User".
- 1.1.1.7: Users shall be able to change their email address and password, anytime.
- 1.1.1.8: Users shall be able to delete their accounts without any requisites, anytime.

1.1.2. Sign In

- 1.1.2.1: Users shall be able to sign in using their email and password combination, or username and password combination.
- 1.1.2.2: Users shall be able to sign out without a restriction.
- 1.1.2.3: Users shall be able to use "Remember Me" option when signing in. This way, they will automatically be signed in when they access the platform.

1.1.3. Guest Users

- 1.1.3.1: Guest Users shall be able to view profile pages, art items, pages of online/physical exhibitions.
- 1.1.3.2: Guest Users shall be able to use the search/filter functionality.
- 1.1.3.3: Guest Users shall not be able to make any changes in the state of the system.

1.1.4 Threads

- 1.1.4.1: Registered users and artists shall be able to view and reply to threads that belong to art items or exhibitions
- 1.1.4.2: Registered users and artists shall be able to create threads on the discussion forum.
 - 1.1.4.2.1: Registered users and artists shall be able to edit their threads in the discussion forum.

- 1.1.4.2.2: Registered users and artists shall be able to remove their threads in the discussion forum.
- 1.1.4.3: Registered users and artists shall be able to reply to threads in the discussion forum.
 - 1.1.4.3.1: Registered users and artists shall be able to edit their replies under threads.
 - 1.1.4.3.2: Registered users and artists shall be able to remove their replies under threads.
 - 1.1.4.3.3: Registered users and artists shall be able to upvote and downvote replies.

1.1.5 Events

- 1.1.5.1: Artists shall be able to arrange events by themselves or collaboratively.
- 1.1.5.2: Artists shall be able to edit events. [1.2.3.5]
 - 1.1.5.2.1: Artists shall be able to add collaborators to events.
 - 1.1.5.2.2: Artists shall be able to remove collaborators from events.
 - 1.1.5.2.3: Artists shall be able to edit event information (title, description, time, etc.).
 - 1.1.5.2.4: Artists shall be able to edit event location in Physical Exhibitions.
 - 1.1.5.2.5: Artists shall be able to edit external platform links in Online Galleries.
- 1.1.5.3: Artists shall be able to remove events they created. [1.2.3.6]
- 1.1.5.4: Artists shall be able to arrange **Online Galleries** using the platform.
 - 1.1.5.4.1: Artists shall be able to add art items to Online Galleries.
 - 1.1.5.4.2: Artists shall be able to remove art items from Online Galleries.
 - 1.1.5.4.3: Artists shall be able to indicate and link an outside platform for their Online Galleries if they choose to host it in another platform.
- 1.1.5.5: Artists shall be able to arrange **Physical Exhibitions** using the platform.
 - 1.1.5.5.1: Artists shall be able to mark event location in Physical Exhibitions. [1.2.3.2]
 - 1.1.5.5.2: Users shall be able to view physical exhibitions on a map showing their location. [1.2.3.2]
 - 1.1.5.5.3: Users shall be able to mark their geographic locations via the platform using geotagging when they are attending a Physical Exhibition. [1.2.3.3]
- 1.1.5.6: Users shall be able to indicate that their participation in the event. [1.2.3.7]
- 1.1.5.7: Users shall be able to cancel their participation to a event. [1.2.3.7]
- 1.1.5.8: Users shall be notified when an event is created by a followed artist.

1.1.6 Copyright

- 1.1.6.1: Artists shall be able to demand copyright protection for their art items [1.2.4.1]
- 1.1.6.2: Users and artists shall be able to report infringements of copyright

1.1.7 Account Verification

- 1.1.7.1: Users shall be able to apply to be verified. [1.2.5.1]

1.1.8 Bidding

- 1.1.8.1: Artists shall be able to sell their copyrighted art items with a bidding system.
- 1.1.8.2: Users and artists shall be able to bid for art items on the bidding system.
 - 1.1.8.2.1: An artist shall be able to determine a minimum limit that buyer can't bid below.
 - 1.1.8.2.2: Bidders shall not be able to bid below the last offer but can increase it.
- 1.1.8.3: If an artist accepts an offer given, s/he can put a deadline for the owner of the winning offer to complete the payment so that fake bids, bid rigging, etc. can be prevented.
- 1.1.8.4: Artists shall not be able to end the bidding by withdrawing the item and not selling it at all.

1.1.9 Home Page

- 1.1.9.1: The home page shall highlight the most popular artworks and events of the previous week as well as the events in the coming days that are highly anticipated by the users for the guests.
- 1.1.9.2: The home page shall be customized for registered users with upcoming events and artworks of the followed artists.
- 1.1.9.3: Guest users shall be able to see popular artworks and events in the home page.

1.1.10 Profile Page

- 1.1.10.1 Followers and the users that a certain user follows shall be visible in his/her profile page.
- 1.1.10.2 The physical exhibitions/online galleries that a user is attending shall be visible in his/her profile page.
- 1.1.10.3 The profile page shall include name, surname, location, username and profile picture.
- 1.1.10.4 The profile page shall include the art items that the user has made a bid for.
- 1.1.10.5 The profile page shall include the verification status of the user.
- 1.1.10.6 The users shall be able to edit the information included in their profile pages.
- 1.1.10.7 Art items that an artist have shall be visible in his/her profile page.

1.1.11 Reporting and Blocking

- 1.1.11.1 Users shall be able to block any other user as they would like.
- 1.1.11.2 Users shall be able to unblock the users that they have previously blocked as they would like.
- 1.1.11.3 Users shall be able to report the art works and the artists for copyright infringement by filling the details about the original art work.

1.1.12 Communications

- 1.1.12.1: Registered users and artists shall be able to follow other users.
- 1.1.12.2: Registered users and artists shall be notified about activities done by followed users.

1.1.13 Annotations

- 1.1.13.1: Registered users shall be able to annotate text segments with corresponding links.
 - 1.1.13.1.2: Registered users shall be able to annotate text segments in replies in threads sections.
 - 1.1.13.1.3: Artists shall be able to annotate text segments in their own exhibition descriptions and online gallery descriptions.
 - 1.1.13.1.4: Artists shall be able to annotate text segments in their own art item descriptions.
- 1.1.13.2: Registered users shall be able to annotate various content by adding custom labels.
 - 1.1.13.2.1: Registered users shall be able to label discussion threads.
 - 1.1.13.2.2: Artists shall be able to label their own exhibition and online galleries.
 - 1.1.13.2.3: Artists shall be able to label their own art items.
- 1.1.13.3: Registered users shall be able to bookmark discussion threads, art items, exhibitions and online galleries.

1.1.14 Search and Filter

- 1.1.14.1: Guest and registered users shall be able to use the search bar to semantically search for exhibitions, art items, users, threads on the discussion forum
- 1.1.14.2: Guest and registered users shall be able to filter the search results based on artist, location, date.

1.1.15 Admin User

- 1.1.15.1: Admin user shall be able to view the copyright infringement reports.
- 1.1.15.2: Admin user shall be able to accept or reject a copyright infringement report. When the report is accepted, the art item will be removed.
- 1.1.15.3: Admin user shall be able to remove events from the platform.
- 1.1.15.4: Admin user shall be able to remove replies from threads.

1.2 System Requirements

1.2.1 Registered User/Artist Data

- 1.2.1.1: System shall keep track of the artists followed by the user or artist.

- 1.2.1.2: System shall track certain activities and calculate **interaction level**.
 - 1.2.1.2.1: Replies under threads shall be tracked.
 - 1.2.1.2.2: threads about exhibitions, online galleries, collections or pieces of art shall be tracked.
- 1.2.1.3: System shall keep track of *number of followers, number of copyrighted items and number of art exhibitions*. Using these data, system shall calculate a **popularity level**.
- 1.2.1.4: System shall calculate a **user level** for each user using the interaction and popularity levels. The level shall be invisible to everybody but the user itself.
- 1.2.1.5: System shall keep track of users' activities.
- 1.2.1.6: System shall enable or disable a user's certain activities according to the user's level.
- 1.2.1.7: System shall keep track of the geotagging information of the user whenever a user attends a physical event and activates their geotagging. [1.1.5.3]

1.2.2 Threads

- 1.2.2.1: System shall include a text editor for creating entries on the threads.

1.2.3 Events

- 1.2.3.1: System shall include a map that visually shows locations of physical events. [1.1.5.5.1]
- 1.2.3.2: System shall keep track of the geotagging information of the physically held events. This information will be used to infer which physical events the user has attended. [1.1.5.5.4]
- 1.2.3.3: System shall only allow the users who created the event to edit it. [1.1.5.2]
- 1.2.3.4: System shall only allow the users who created the event to remove it. [1.1.5.3]
- 1.2.3.5: System shall keep track of participating users. [1.1.5.7] [1.1.5.8]

1.2.4 Copyright

- 1.2.4.1: System shall be able to issue copyright protection for the art items [1.1.6.1]
- 1.2.4.2: System shall be able to provide the users with a way to send their reports about copyright infringements.
- 1.2.4.3: After considerations, system shall take an action on the valid reports by penalizing the violator.
 - 1.2.4.3.1: System shall immediately remove the post that is deemed to be violating the copyrights of the original artist.
 - 1.2.4.3.2: System might take the actions on its sole decision including but not limited to restricting the violator's account from posting for a duration, dropping his/her verification status or his/her account's level, or even completely deleting his/her account.

1.2.5 Account Verification

- 1.2.5.1: When a user or an artist applies to be verified, system shall be able to verify their account based on calculated artistic values. (See the glossary for the definition of artistic values and the factors that affect the calculations.) [1.1.7.1]

1.2.6 Bidding

- 1.2.6.1: System shall provide a deadline mechanism for the completion of the asset exchange between the artist and the user who made the winning offer.
 - 1.2.6.1.1: After the auction, system shall make artist and client agree on the deadline of the transfer.
 - 1.2.6.1.2: System shall punish the bidder if s/he does not complete the payment until the deadline.
- 1.2.6.1.2: After the completion of the exchange, the artist shall be able to mark the auction as "Sold".
- 1.2.6.1.3: System shall show that the auction is now completed if it is marked as "Sold" by the artist.

1.2.7 Recommendation

- 1.2.7.1: System shall be able to recommend users artworks or artists based on their activities
- 1.2.7.2: System shall be able to recommend the user events using the data about the events attended by the user.

1.2.8 Artistic Value Calculation

- 1.2.8.1: System shall calculate artistic values of its users so that additional functionalities are provided to those users who have sufficient artistic value.
 - 1.2.8.1.1: The artistic value calculations include the number of online galleries hosted and the interaction those online galleries have got
 - 1.2.8.1.2: The artistic value calculations include the number of physical exhibitions attended and the interest in those physical exhibitions
 - 1.2.8.1.3: The artistic value calculations include the number of artworks published on the online platform and the interaction those artworks have got
 - 1.2.8.1.4: The artistic value calculations include the participation in the discussions that take place on the online platform
- 1.2.8.2: Custom coefficients shall be used to calculate a user's activity points.

1.2.9 Annotations

- 1.2.9.1: System shall allow registered users to create hyperlink for a text segment that they write. [1.1.13.1]

- 1.2.9.1.2: System shall allow registered users to create hyperlink for a text segment that they write in threads.[1.1.13.1.2]
 - 1.2.9.1.3: System shall allow artists to create hyperlink for a text segment they write in their own exhibitions' descriptions and online galleries' descriptions.[1.1.13.1.3]
 - 1.2.9.1.4: System shall allow artists to create hyperlink for a text segment they write in their own art items' descriptions.[1.1.13.1.4]
- 1.2.9.2: System shall allow registered users to annotate content with customized textual data. [1.1.13.2]
 - 1.2.9.2.1: System shall allow registered users to annotate discussion threads they create with corresponding customized textual data.[1.1.13.2.1]
 - 1.2.9.2.2: System shall allow registered users to annotate the exhibitions and online galleries they create with corresponding customized textual data.[1.1.13.2.2]
 - 1.2.9.2.3: System shall allow registered users to annotate their own art items with corresponding customized textual data.[1.1.13.2.3]
- 1.2.9.1.3: System shall allow registered users to bookmark discussion threads, art items, exhibitions and online galleries. [1.1.13.3]

1.2.10 Search and Filter

- 1.2.10.1: System shall include a semantic search system that associates a query with content on the website based on similarity. Content of the website refers to the exhibitions, art items, users and discussions.
- 1.2.10.2: System shall be able to filter semantic search results based on different features. These features shall include: location, date, artist.

2. Non-Functional Requirements

2.1 Annotations

- 2.1.1 Annotations shall comply with the [W3C Web Annotation Data Model](#).
- 2.1.2 Annotations shall follow [W3C standards](#).

2.2 Accessibility

- 2.2.1 Platform shall support English language.
- 2.2.2 Platform shall be accessible via a web browser and an android device.
 - 2.2.2.1 Platform shall support modern web browsers (Chrome, Opera, Safari, Firefox, Edge)
 - 2.2.2.2 Platform shall support Android version 10 or above.
 - 2.2.2.3 The size of android application should be less than 200MB.

- 2.2.3 The user interface of the platform (color theme, design etc.) shall not obscure the artworks displayed on the screen. The design shall emphasize and bring the displayed artworks into the forefront.

2.3 Performance and Reliability

- 2.3.1 The uptime shall be at least 99%.
- 2.3.2 The response time shall be as short as possible(maximum limit 3 sec).
- 2.3.3 The platform shall support at least 5000 users actively using it at the same time.
- 2.3.4 The platform shall have 85 percent maintainability for 24 hours.

2.4 Security

- 2.4.1 The platform shall support HTTPS protocol
- 2.4.2 The passwords of users shall be encrypted in the database
- 2.4.3 The password shall be at least 8 characters long, with at least 1 uppercase letter, 1 lowercase letter and 1 special symbol.
- 2.4.4 A verification email shall be sent for the verification of the user email address.

2.5 Legal and Ethical Issues

- 2.5.1 Usage of personal information should shall comply with the rules of [GDPR](#) and [KVKK](#).
- 2.5.2 Users shall read and accept "Terms of Use" and "Privacy Policy" before signing up

Scenarios & Mock-ups

Scenario 1



Persona

- Tan Tenekecioğlu
- 39 years old
- Media and visual arts graduate
- Currently works in his workshop
- Likes to interact with other art enthusiasts
- Influenced by Monet and Impressionism

Goals

- Wants to create his first exhibition
- Wants his followers to see the event on the platform
- Wants to interact with other art enthusiasts who share similar interests
- Wants to make money with art by reaching greater masses

Preconditions

- Verified artist with a small number of followers
- Uses the platform regularly to share his artwork and engage with his followers and other artists
- Already logged in to the platform and is on the home page

Acceptance Criteria

- 1.1.5.5: Artists shall be able to arrange Physical Exhibitions using the platform.
- 1.1.5.5.1: Artists shall be able to mark event location in Physical Exhibitions. [1.2.3.2]
- 1.1.5.5.2: Users shall be able to view physical exhibitions on a map showing their location. [1.2.3.2]
- 1.1.5.8: Users shall be notified when an event is created by a followed artist.
- 1.1.9.1: The home page shall highlight the most popular artworks and events of the previous week as well as the events in the coming days that are highly anticipated by the users for the guests.
- 1.1.9.2: The home page shall be customized for registered users with upcoming events and artworks of the followed artists.
- 1.2.3.1: System shall include a map that visually shows locations of physical events. [1.1.5.5.1]

User Story

After graduating from Mimar Sinan Fine Arts University, Mr. Tenekecioğlu decides to pursue a career on painting. He wants to meet and interact with other art enthusiasts. Moreover, due to the ongoing pandemic, he has had difficulties attracting and reaching people by old-school leaflets. He also could not easily engage with as many people as he would like to who are truly interested in the kind of work that he does. As a result he signed up to our platform to keep up with the other art lovers and overcome those aforementioned problems.

Scenario

Mr. Tan Tenekecioğlu logs in to our platform two weeks before his exhibition. Since he wants to create an event, on the home page he pushes on the "New Event" button. A pop-up with a form for Mr. Tenekecioğlu to enter the details of the event welcomes him. He enters the following information for the event in the form:

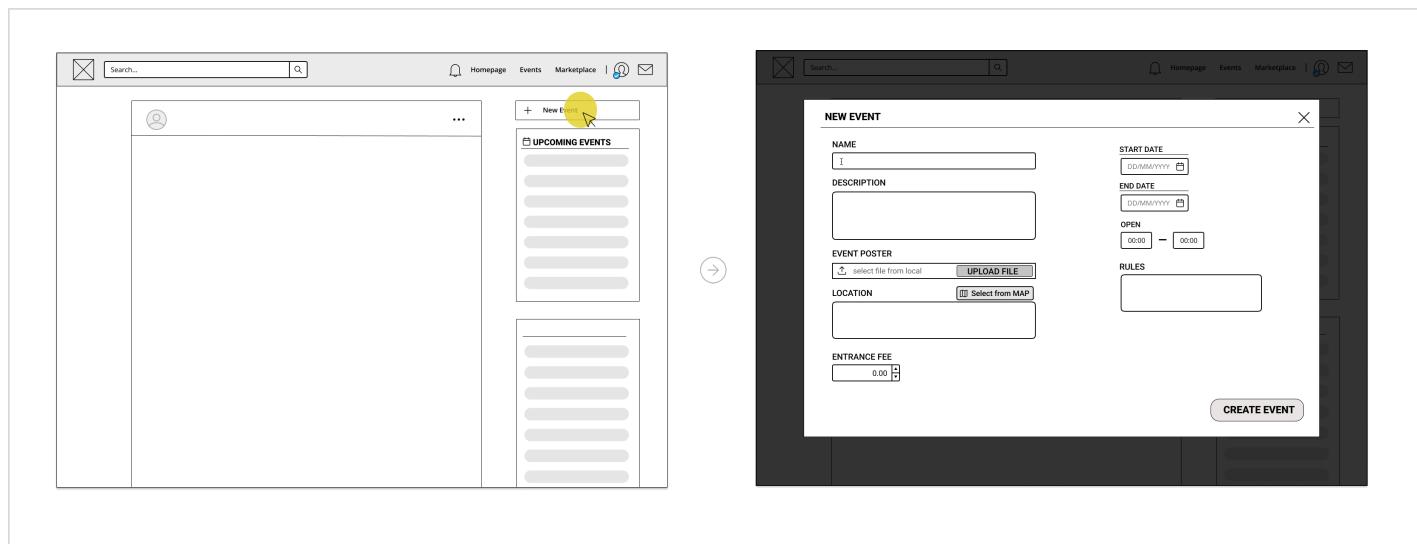
- Name: Whispers of the Winter Winds

- Description: A cold slap in the face amidst the dark: The Winter
- Event Poster:
- Start Date: 02/04/2022
- End Date: 23/04/2022
- Open: 09:00 - 21:00
- Location: Tenekecioğlu Art Studio
- Entrance Fee: 99.99₺ / day
- Dress code: All white outfit

He then clicks "Create Event" button on the bottom right of the pop-up. A "Success" pop-up notifies the user that his event is successfully created. The created event shows up on his and his followers' home pages. His followers also get notification about the new event.

Action List

1. Tan Tenekecioğlu visits the home page. He wants to create an event for his art exhibition. He clicks the "New Event" button.



2. He fills in the form in the pop-up window.

NAME
Whispers of the Winter Winds

DESCRIPTION
A cold slap in the face amidst the dark: The Winter

EVENT POSTER

LOCATION

Tenekecioğlu Art Studio

START DATE
02/04/2022

END DATE
23/04/2022

OPEN
09:00 – 21:00

RULES
Dress Code: All white outfit

CREATE EVENT

3. He submits the form by clicking on "Create Event".

NEW EVENT

NAME
Whispers of the Winter Winds

DESCRIPTION
A cold slap in the face amidst the dark: The Winter

EVENT POSTER

LOCATION

Tenekecioğlu Art Studio

START DATE
02/04/2022

END DATE
23/04/2022

OPEN
09:00 – 21:00

RULES
Dress Code: All white outfit

CREATE EVENT

Whispers of the Winter Winds
organized by Tan
A cold slap in the face amidst the dark: The Winter

SUCCESS
Your event is successfully created.

LOCATION
Location info

COMMENTS
user_1245 I admire what you are doing, master

YOUR CALENDAR

CONTINUE

4. The event page for the event he just created comes before him. After inspecting the details of his event, he goes to the home page. He sees the event on the home page.

Whispers of the Winter Winds
organized by Tan Tenekcioğlu

A cold slap in the face amidst the dark: The Winter

Event Fee 99.99€/day **ATTEND**

LOCATION
Location info

Comments
 user_1245 I admire what you are doing, mister

YOUR CALENDAR

UPCOMING EVENTS
 Whispers of the Winter Winds

Tony Soprano created a few seconds ago

Scenario 2



Persona

- Age: 52
- Job: Unknown
- Characteristics: Raised with French echole, Art enthusiast

Preconditions

- He registered 3 months ago.
- He has been automatically logged in as he is an active user.

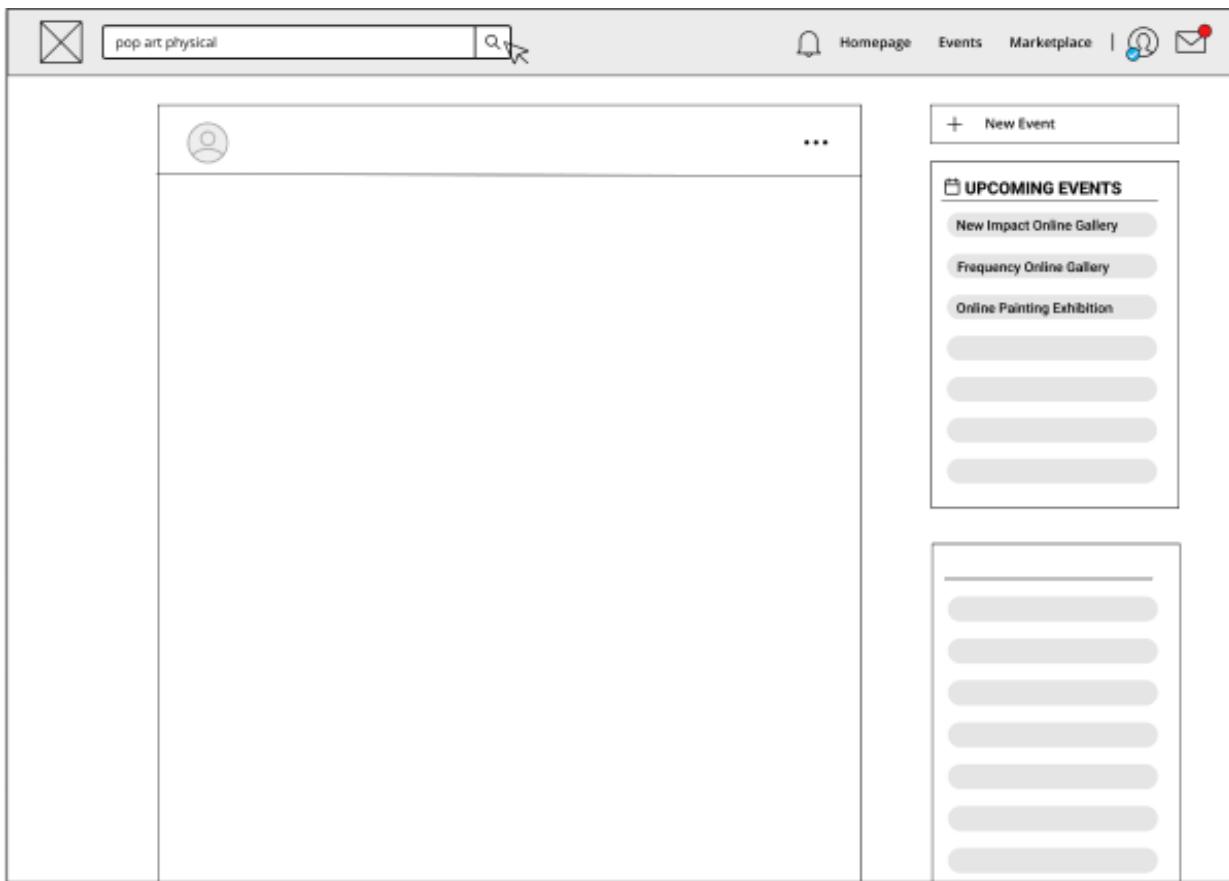
- He is an active user who usually checks for upcoming galleries and is keen on discussing art and art pieces.
- He usually gets notifications about the recent events based on his following list and previously attended events.

Acceptance Criteria

- 1.1.9.1: The home page shall highlight the most popular artworks and events of the previous week as well as the events in the coming days that are highly anticipated by the users for the guests.
- 1.1.9.2: The home page shall be customized for registered users with upcoming events and artworks of the followed artists.
- 1.1.12.4: Registered users and artists shall be able to follow other users.
- 1.1.14.1: Guest and registered users shall be able to use the search bar to semantically search for exhibitions, art items, users, posts on the discussion forum
- 1.1.13.3: Registered users shall be able to bookmark discussion posts, art items, exhibitions and online galleries.

Scenario

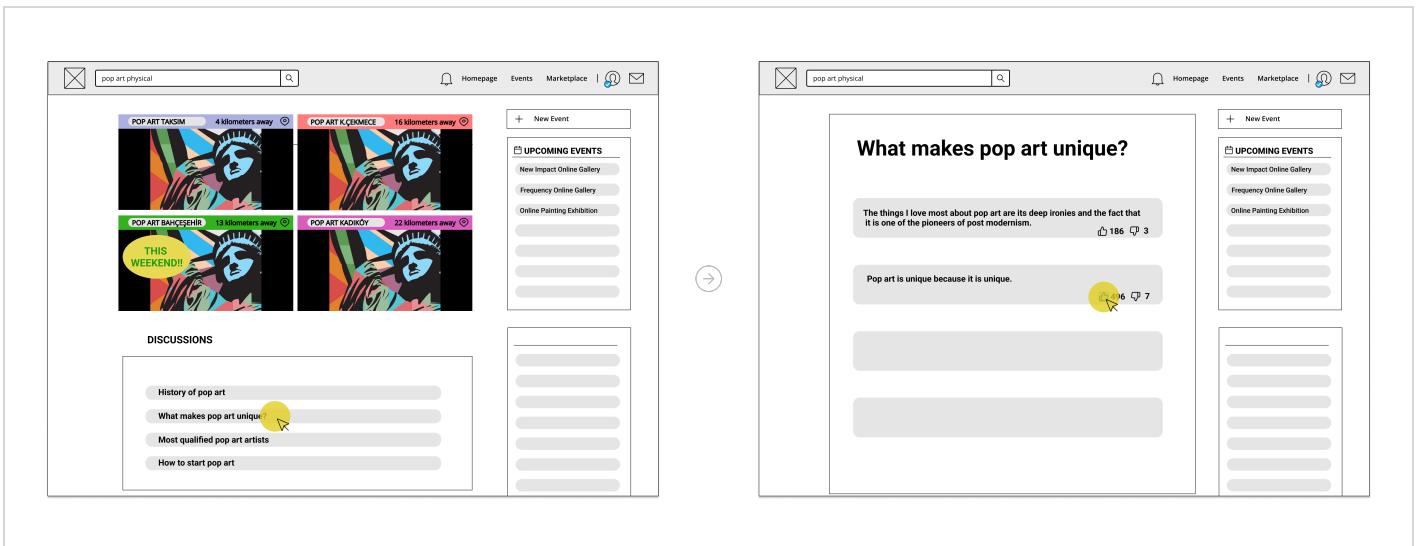
1. Bülent wants to choose an art gallery to go to with a friend this weekend. His friend likes pop art and wants to visit a pop art exhibition. After opening the website the personalized home page appears. However, since he has been previously attending online galleries, the recommendations on the home page include mostly online galleries. This time Ahmet wants to visit a pop art exhibition as was decided with a friend of his. He uses a search bar to find some pop art galleries.(Enters "pop art physical")



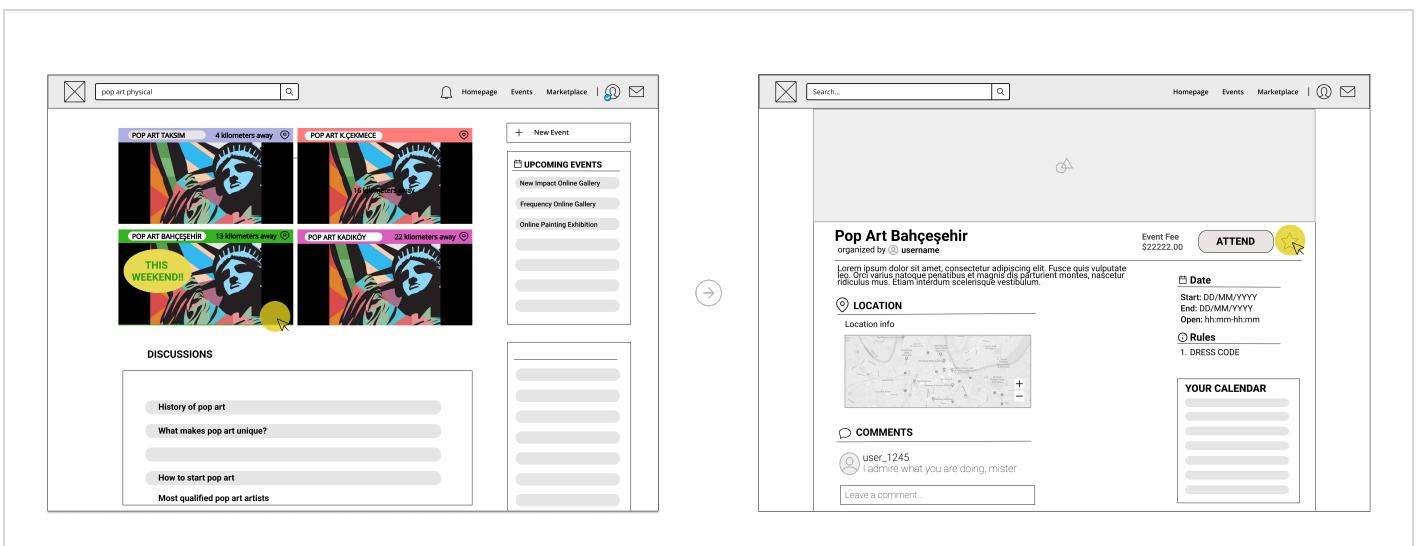
2. The search results are based on his current location since the word "physical" was entered, which was interpreted as an offline gallery. So, the first recommendations include the ones in his city and the galleries of the artists he follows. At the same time, at the end of the list there are previews of the discussions on pop art.

A screenshot of the application interface after a search. The search bar now shows "pop art physical". The main content area displays four recommended gallery locations: "POP ART TAKSIM" (4 kilometers away), "POP ART İÇEKMECE" (16 kilometers away), "POP ART BAĞÇEŞEHİR" (13 kilometers away), and "POP ART KADIKÖY" (22 kilometers away). Each listing includes a small thumbnail image of a colorful pop art portrait. Below this section is a "DISCUSSIONS" heading followed by four preview cards: "History of pop art", "What makes pop art unique?", "Most qualified pop art artists", and "How to start pop art", each with a short description and a grey placeholder icon below it. The right sidebar remains the same as in the first wireframe, featuring a "New Event" button and a "UPCOMING EVENTS" section.

3. At first he wants to read more about what exactly is pop art, and clicks onto the discussion "What makes pop art unique?". He carefully reads the most upvoted comments as they appear first. At the same time he upvotes the ones he liked the most.



4. Then he returns to the search results to finally choose the exhibition. He gets interested in one of the exhibitions happening this weekend, and clicks on it to find out more about it. After reading the reviews in the comments section, he clicks on the "Interested" button to bookmark it.



Scenario 3



Persona

- Age: 37
- Job: Painter
- Characteristics: Quiet, depressive, thoughtful

Story

- Van Gogh is a very talented painter and is able to create impressive paintings. However, he is not able to find buyers for his beautiful pieces of art. He is therefore commercially unsuccessful.
- That is why he wanted to join our platform and find buyers for his paintings, and visitors for his exhibitions online.

Preconditions

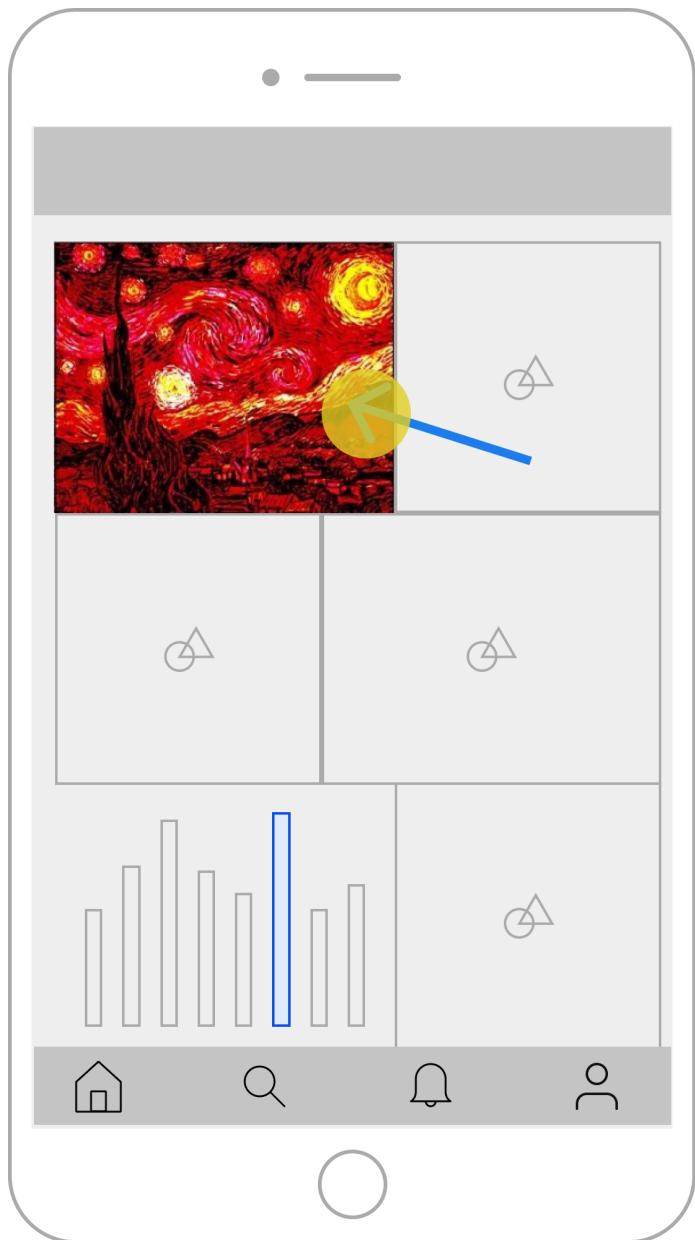
- He is registered in our platform.
- He has already logged in.
- He has an artist profile in the platform.

Acceptance Criteria

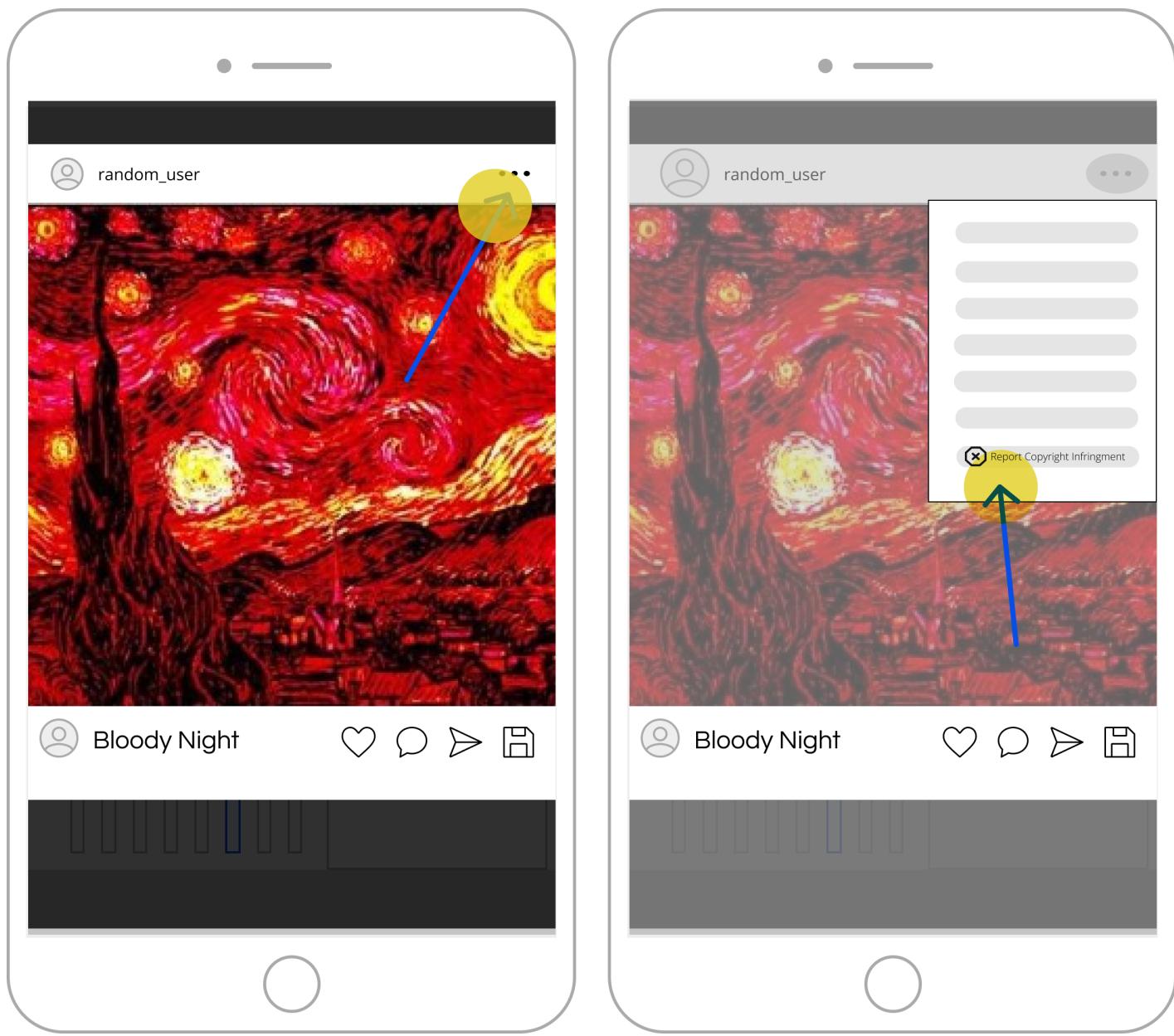
- 1.1.11.3 Users shall be able to report the art works and the artists for copyright infringement by filling the details about the original art work.
- 1.2.4.1: System shall be able to issue copyright protection for the art items [1.1.6.1]
- 1.2.4.2: System shall be able to provide the users with a way to send their reports about copyright infringements.
- 1.2.4.3.1: System shall immediately remove the post that is deemed to be violating the copyrights of the original artist.
- 1.2.4.3.2: System might take the actions on its sole decision including but not limited to restricting the violator's account from posting for a duration, dropping his/her verification status or his/her account's level, or even completely deleting his/her account.

Scenario

1. He sees the art piece named "Bloody Night" in the home page, looking exactly the same as his own piece "Starry Night", just with a red filter. He gets frustrated and decides to report the painting, so he taps on it on the home page.

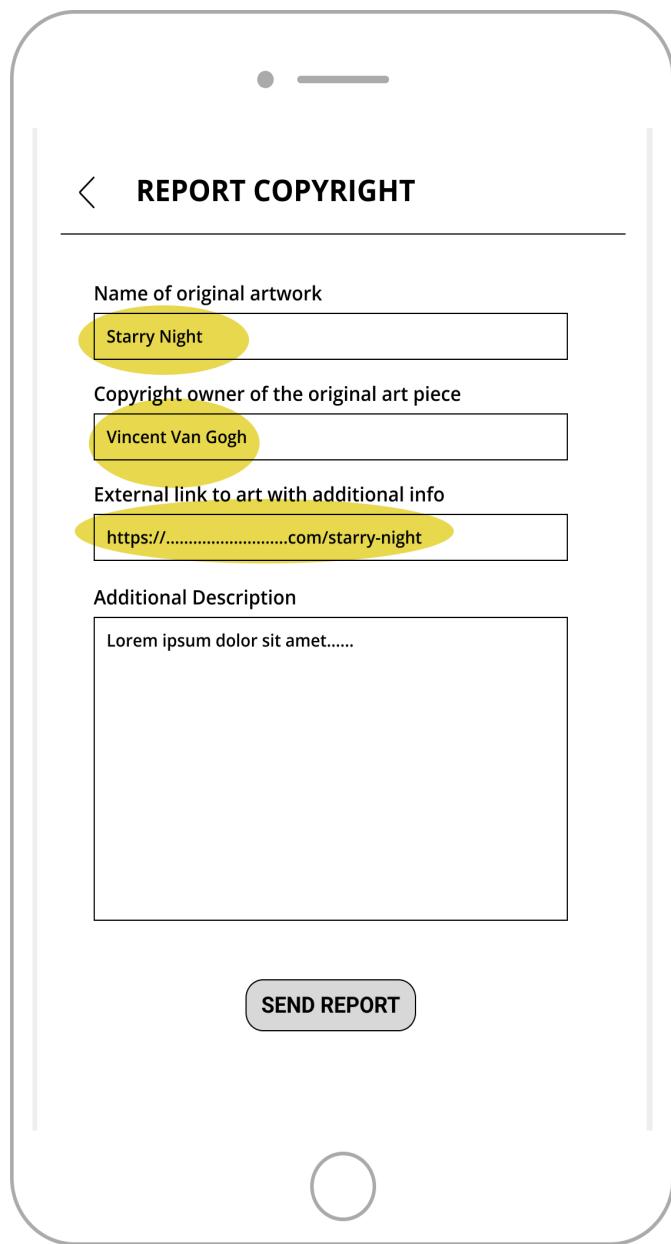
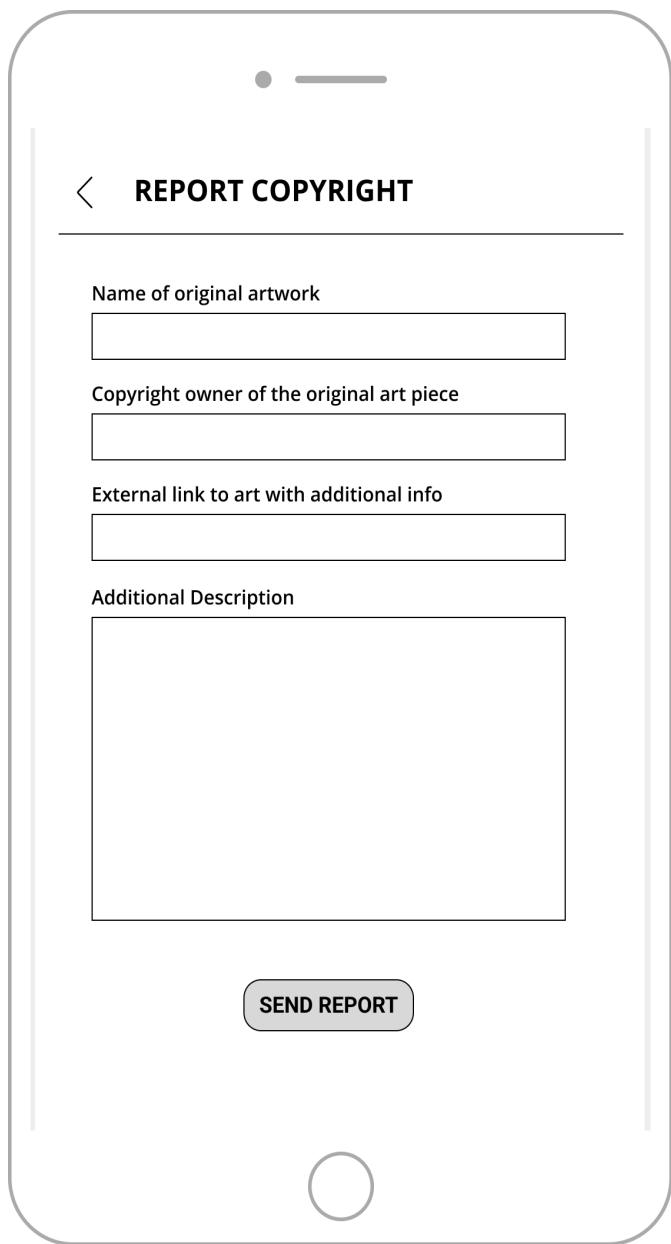


2. Then, he expands the additional functions and chooses the function named "Report Copyright Infringement".



3. Fills the details about the report. These details include:

- Name of the original art piece
- Copyright owner of the original art piece
- An external link for the original art piece with details
- Description of the report



4. He taps on send and waits for the report to be processed.

< REPORT COPYRIGHT

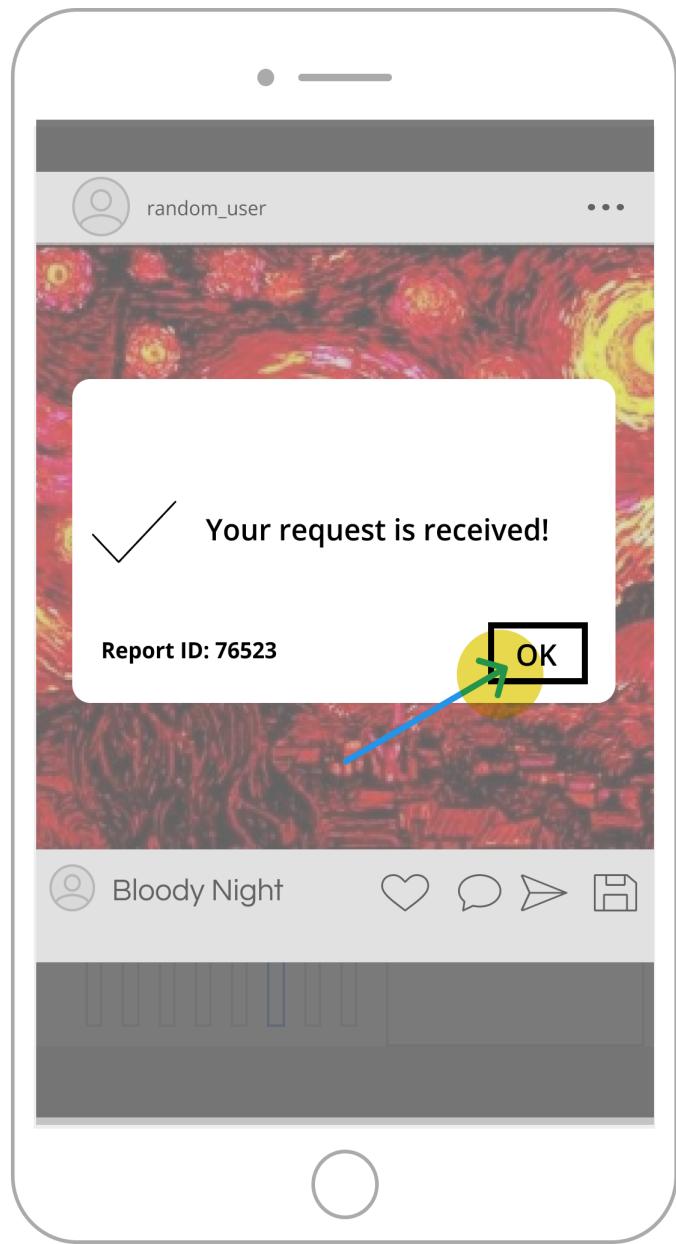
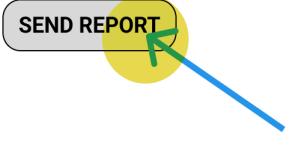
Name of original artwork
Starry Night

Copyright owner of the original art piece
Vincent Van Gogh

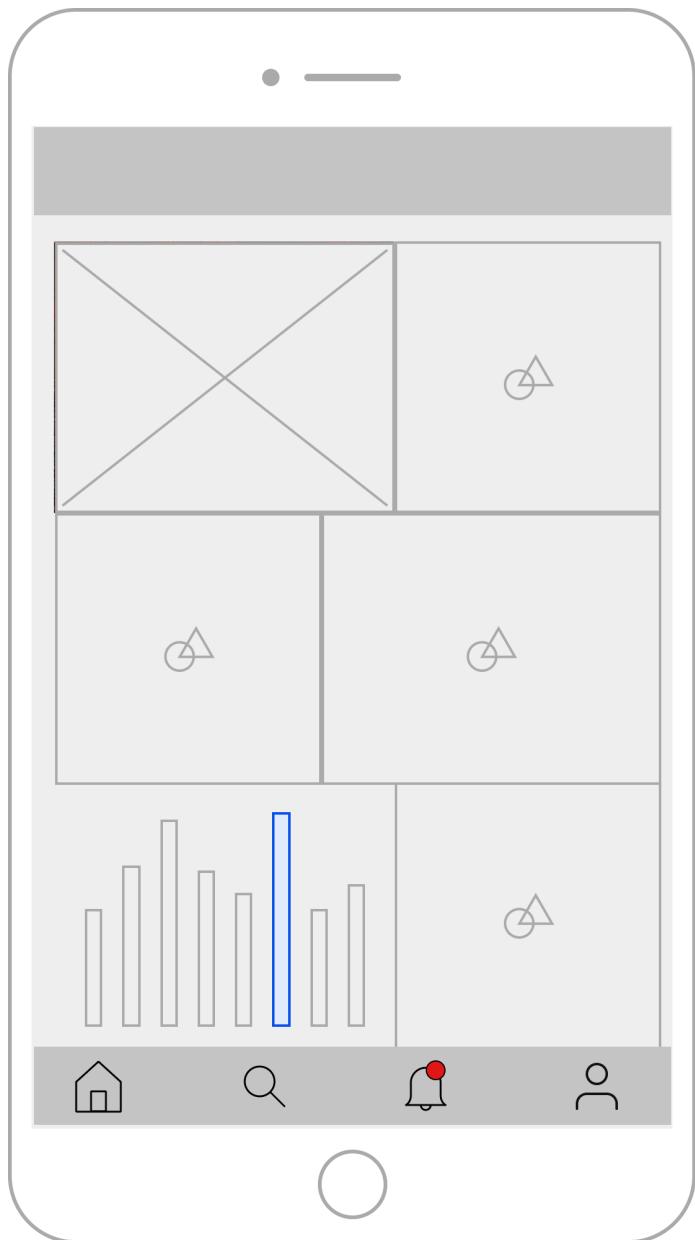
External link to art with additional info
<https://.....com/starry-night>

Additional Description
Lorem ipsum dolor sit amet.....

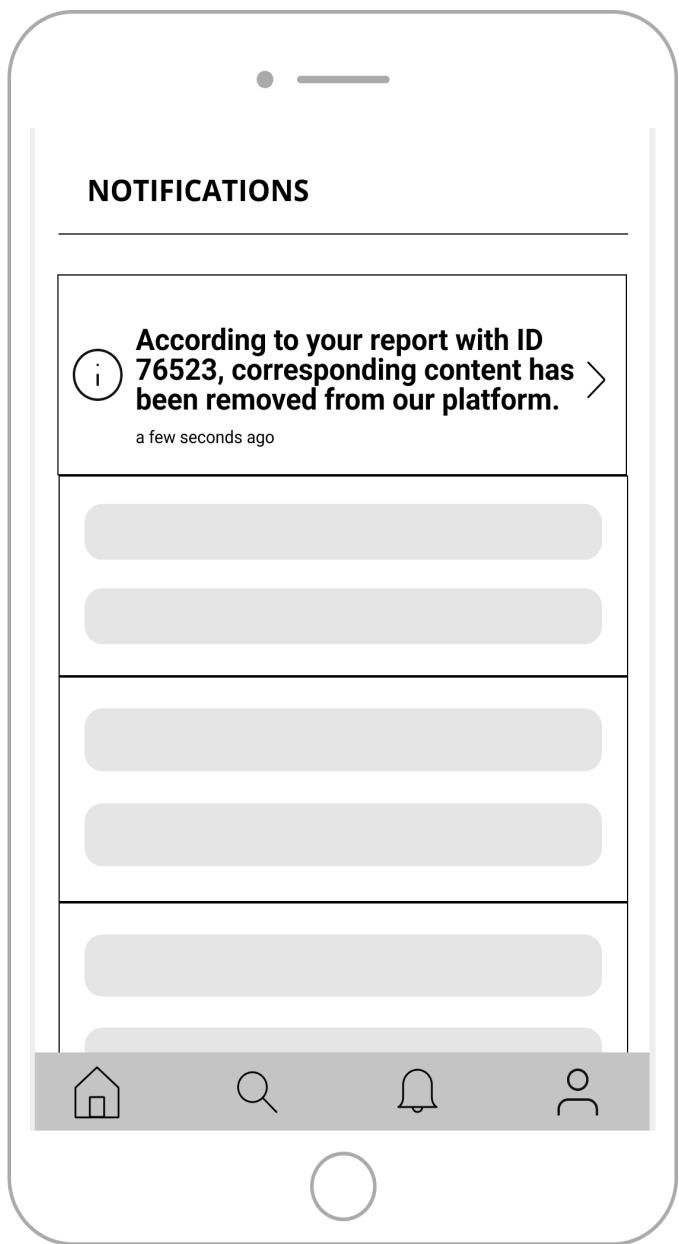
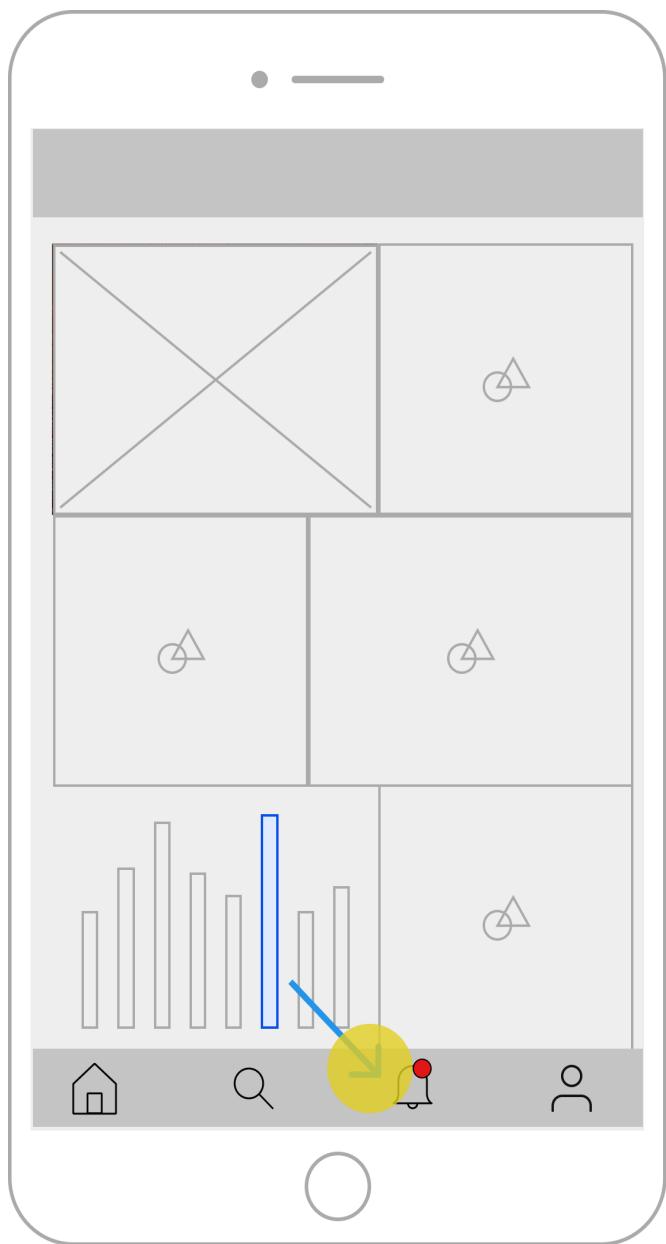
SEND REPORT



5. Later on, he gets a notification about the result of his report.

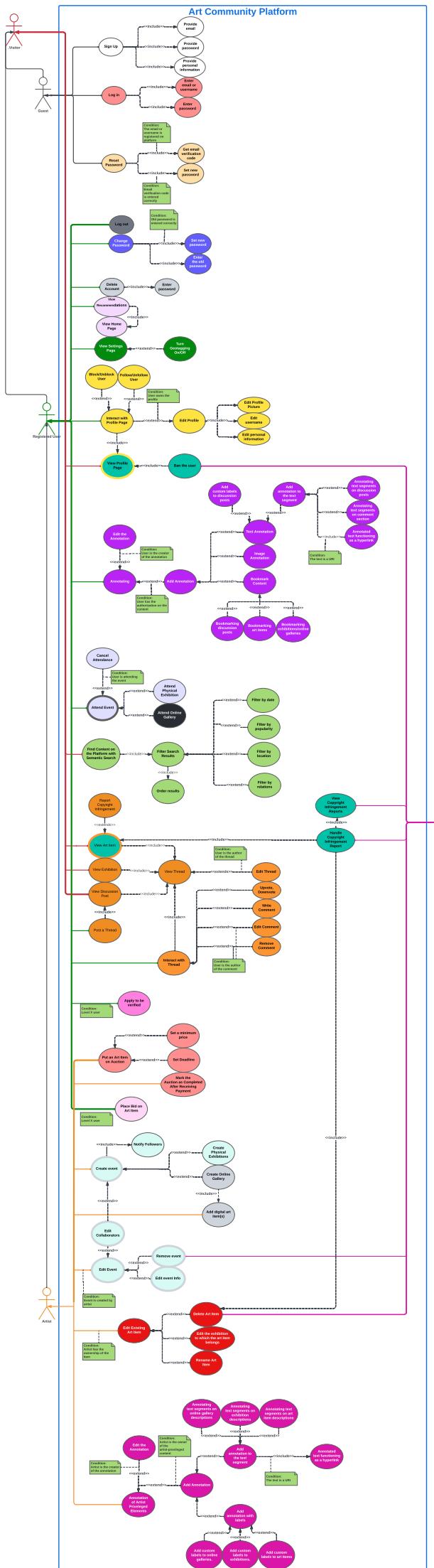


6. He taps on the notification and sees that the art piece that he reported is now removed from the platform.



Use Case Diagram

USE CASE DIAGRAM

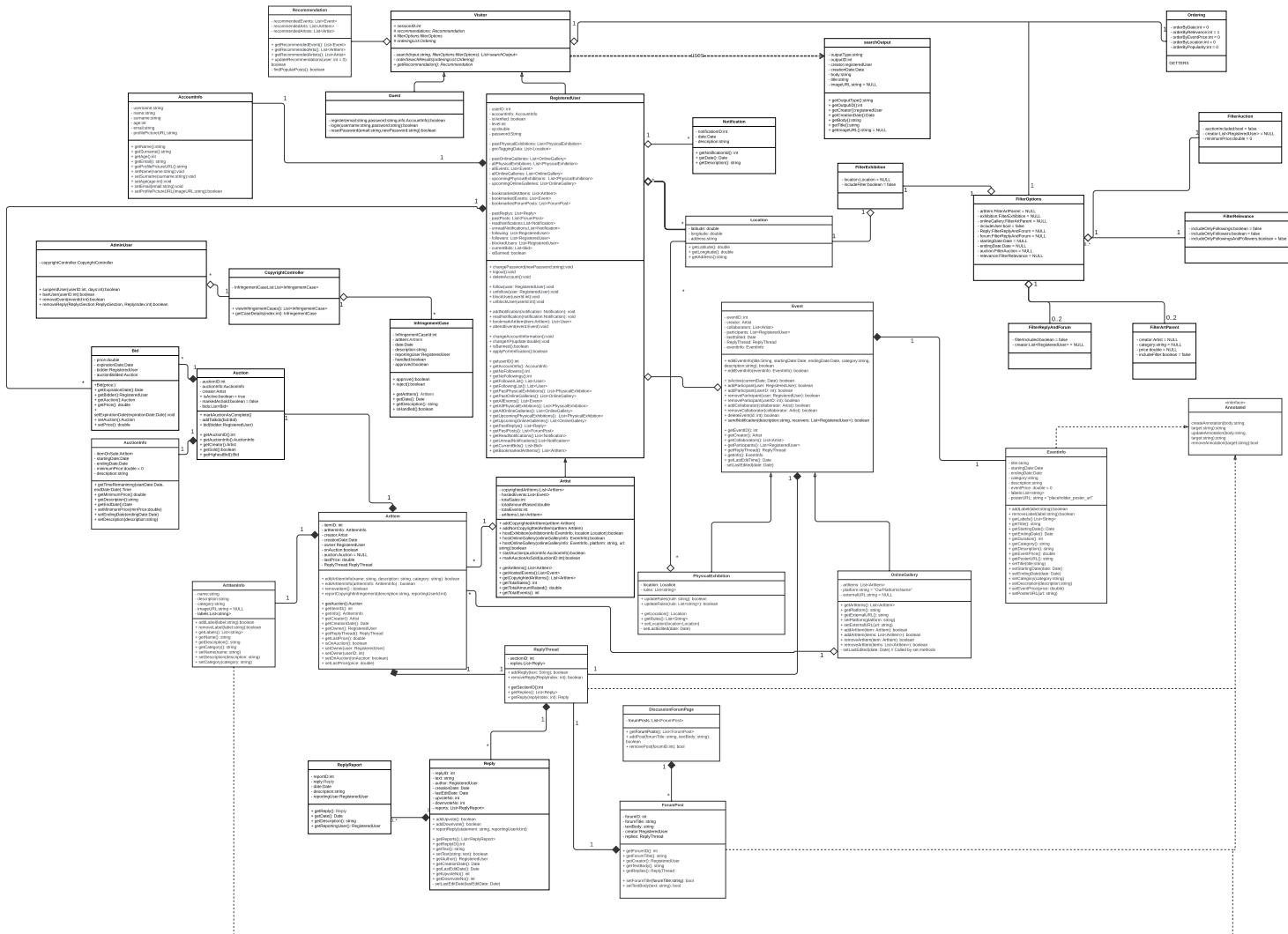


LEGEND FOR DIAGRAM COLOURING

granted signing up
granted logging in
granted user recovering password
granted user log out
requested user change password
registered and deleting account
viewing home page for recommendations
sharing, pinning and voting art
activities that can be done from profile page
viewing user's collection
enabling muted audience for ARTISTS (users)
attending an online gallery
attending physical event
reporting art (listing)
commenting and discussing (threads and comments)
applications to be verified
submitting an art or craft item
listing or pinning an art item
containing physical publications
sharing digital art item
setting up an existing art item
annotation-related activities for ARTISTS

Class Diagram

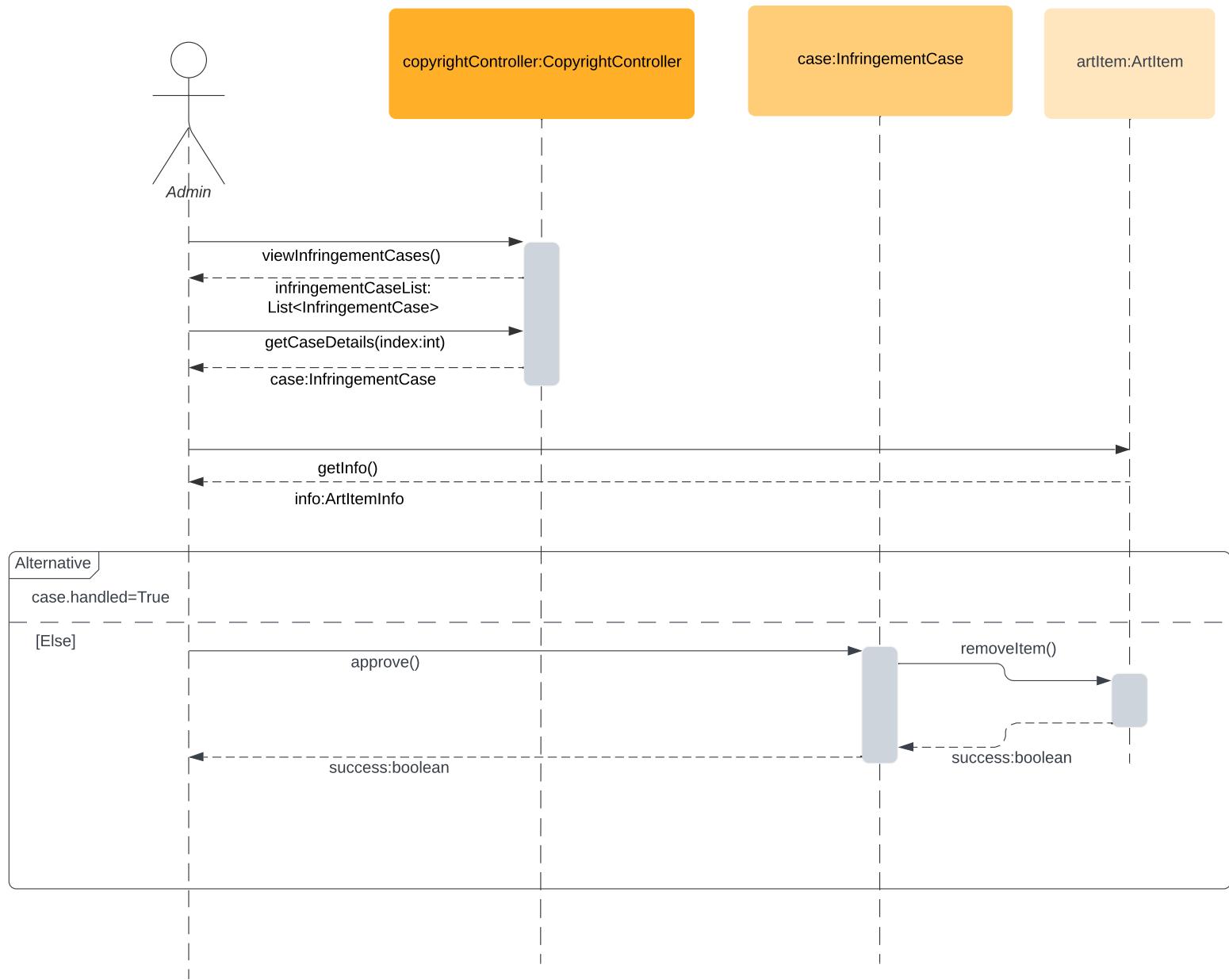
UML CLASS DIAGRAM



Sequence Diagrams

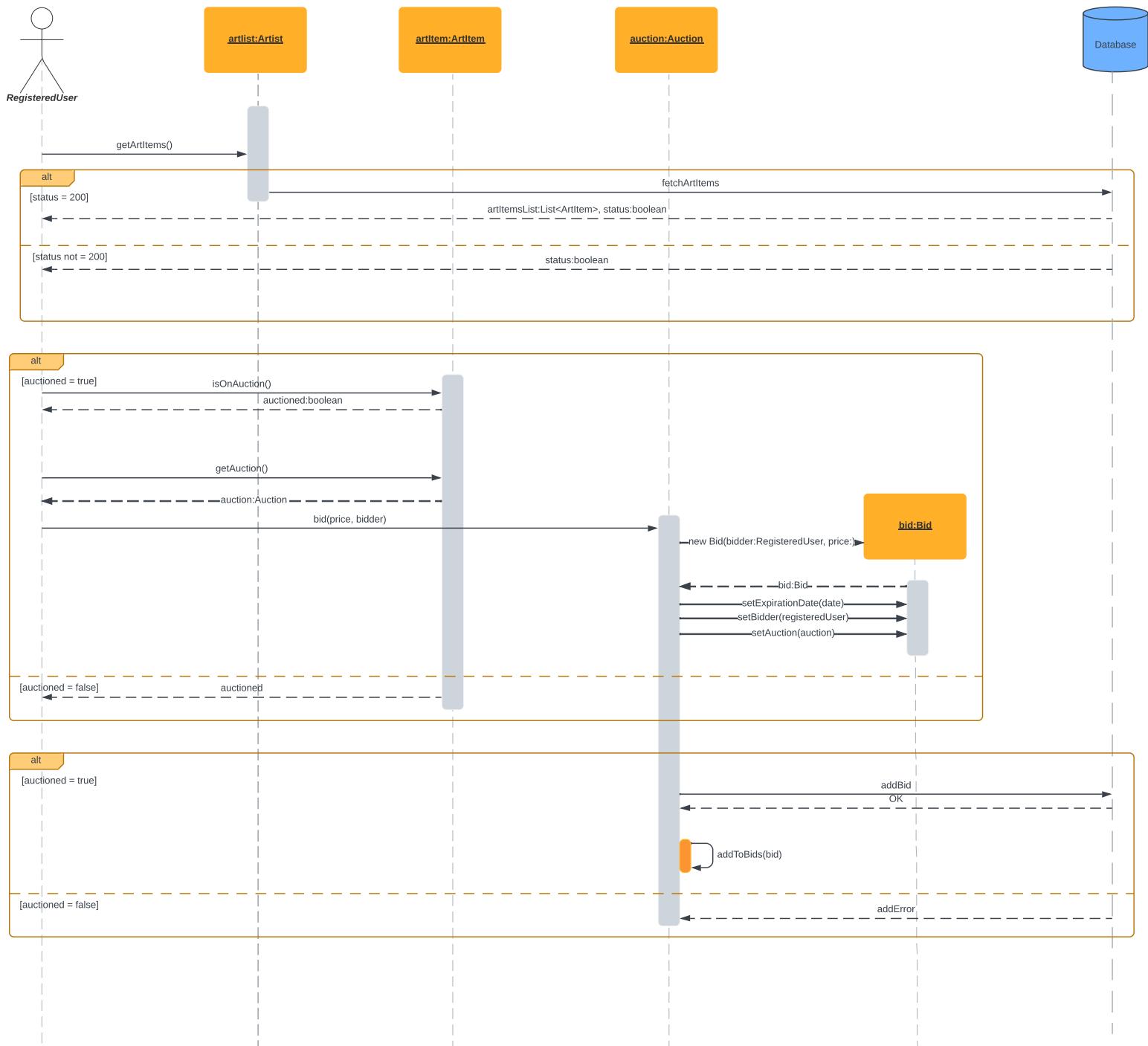
1. Handle Copyright Infringement Report

Cahid Arda Öz | Reviewer: Oğuz Pançuk



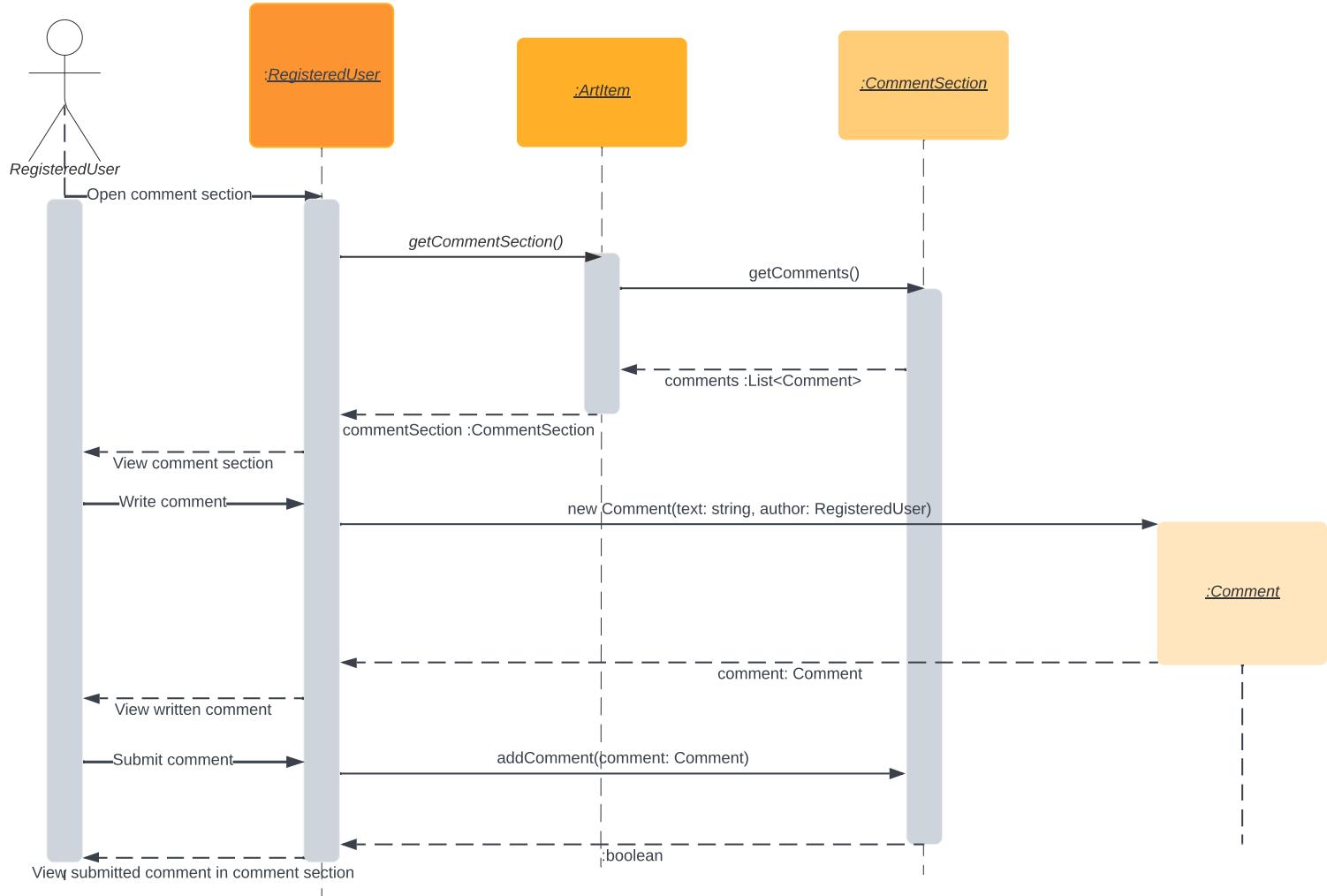
2. Bidding

Demet Yayla | Reviewer: Can Atakan Uğur



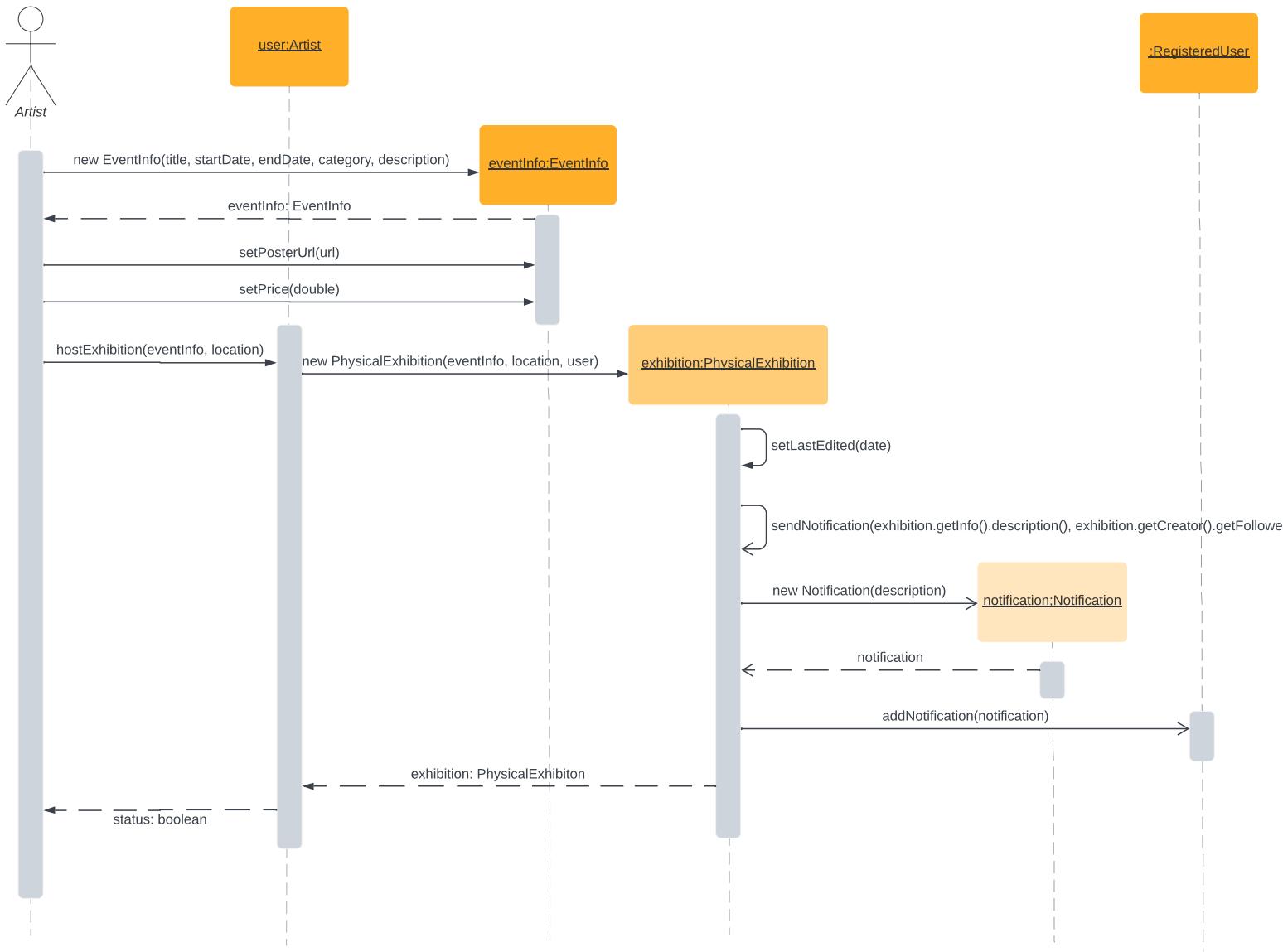
3. Write a comment

Güney Izol | Reviewer: Atilla Türkmen



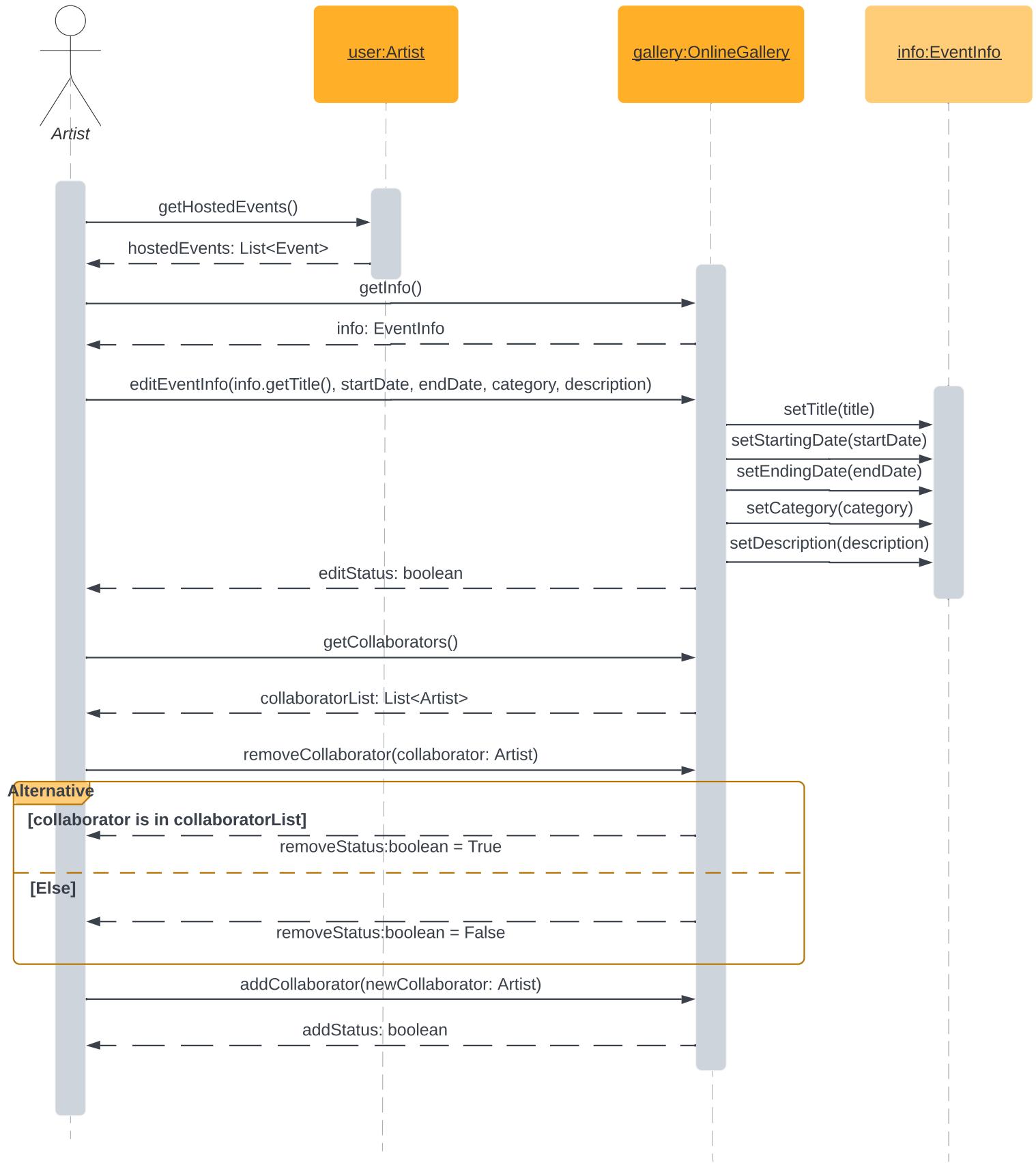
4. Create Physical Event

Erim Erkin Doğan | Reviewer: Aziza Mankenova



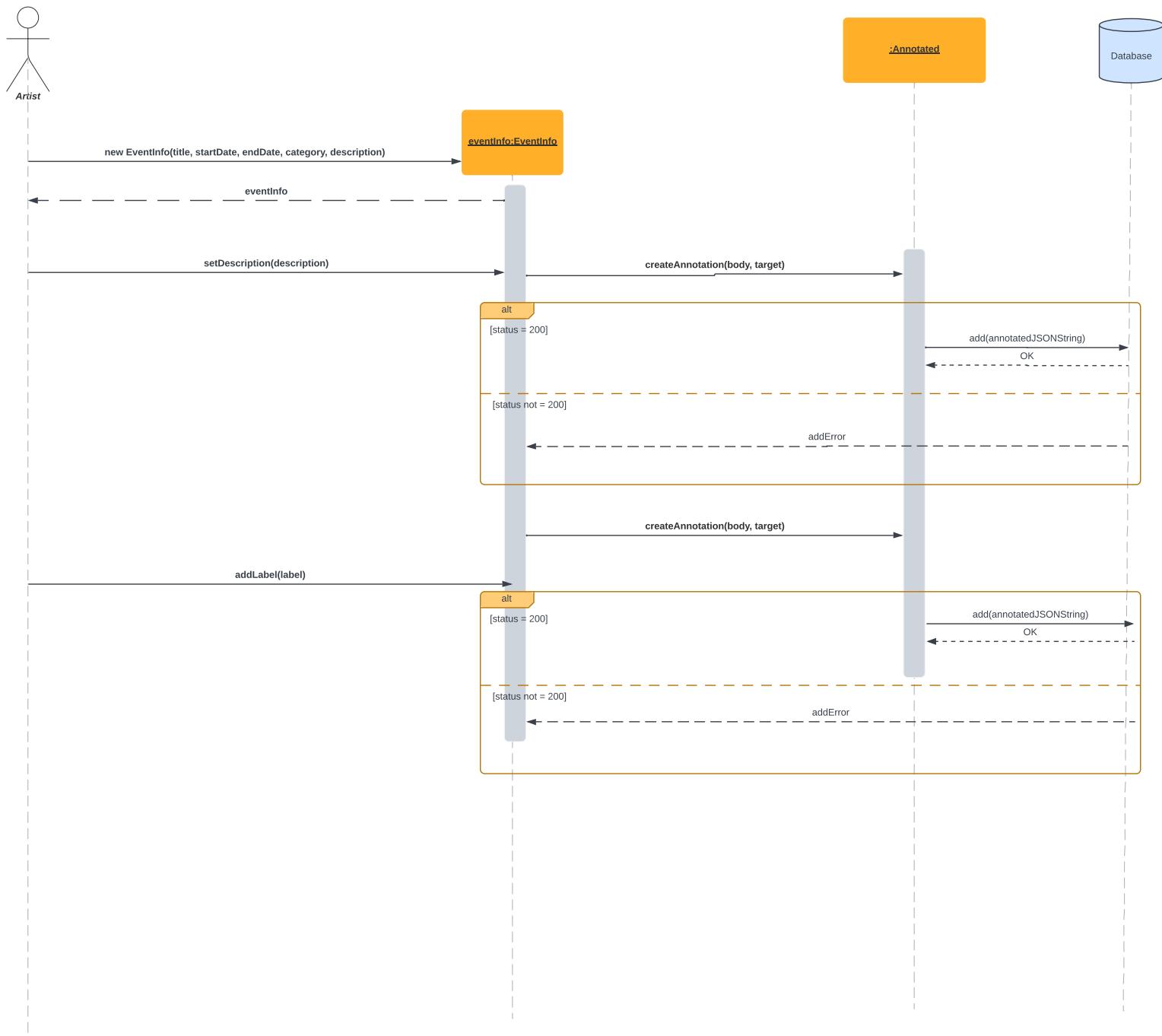
5. Edit Online Gallery

Erim Erkin Doğan | Reviewer: Aziza Mankenova



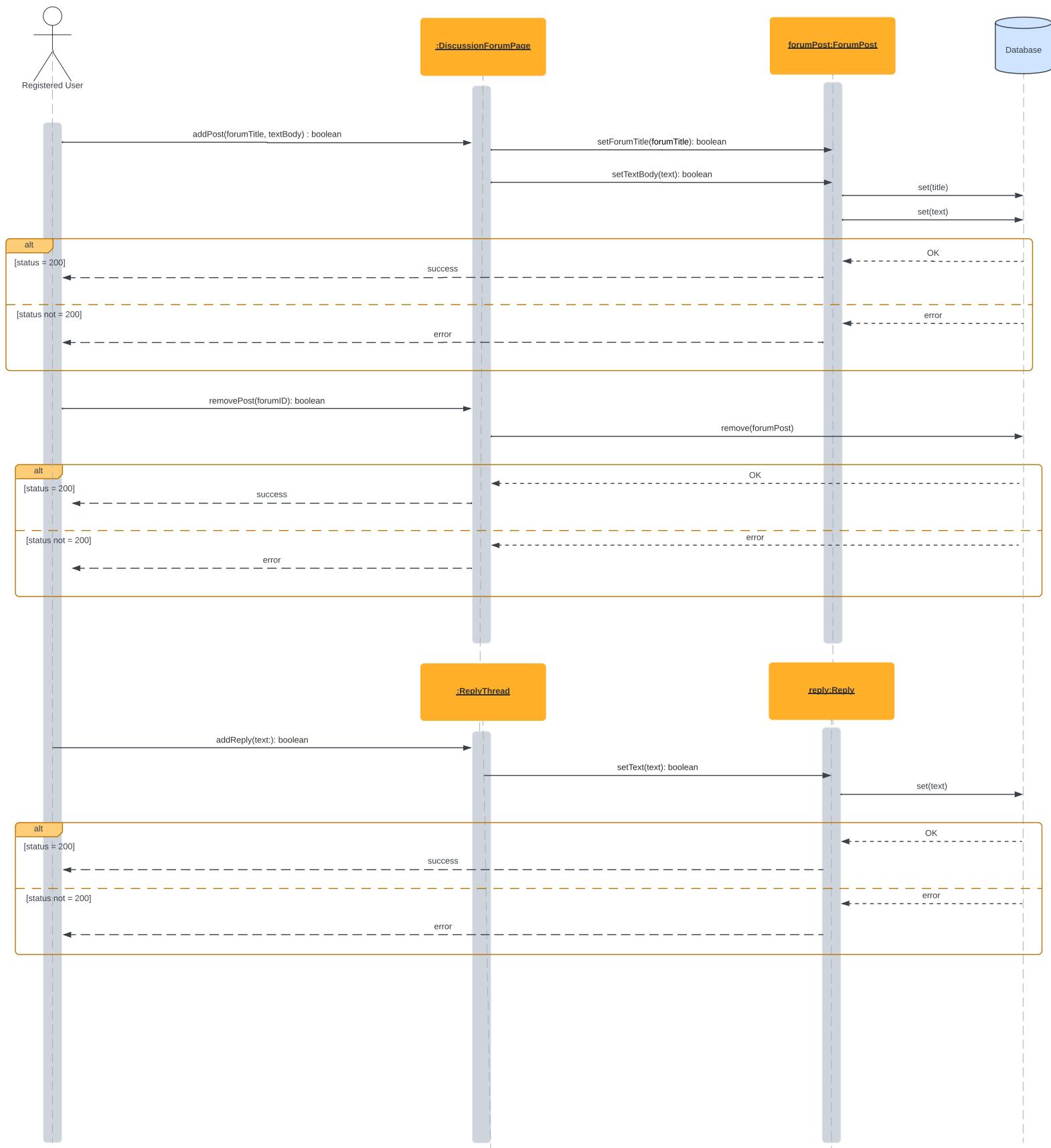
6. Annotation

Can Atakan Uğur | Reviewer: Demet Yayla



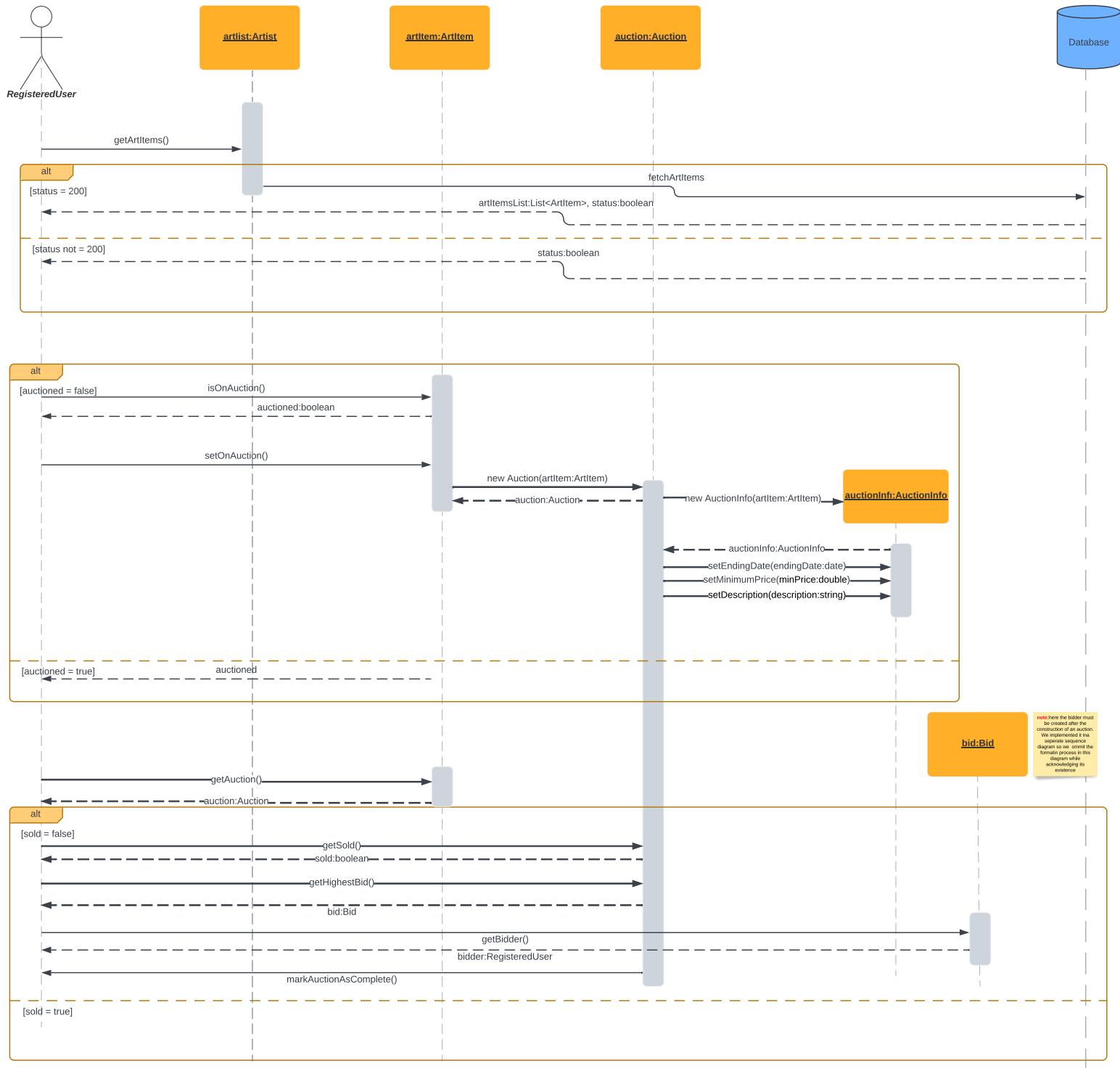
7. Discussion Forum

Ali Can Milani



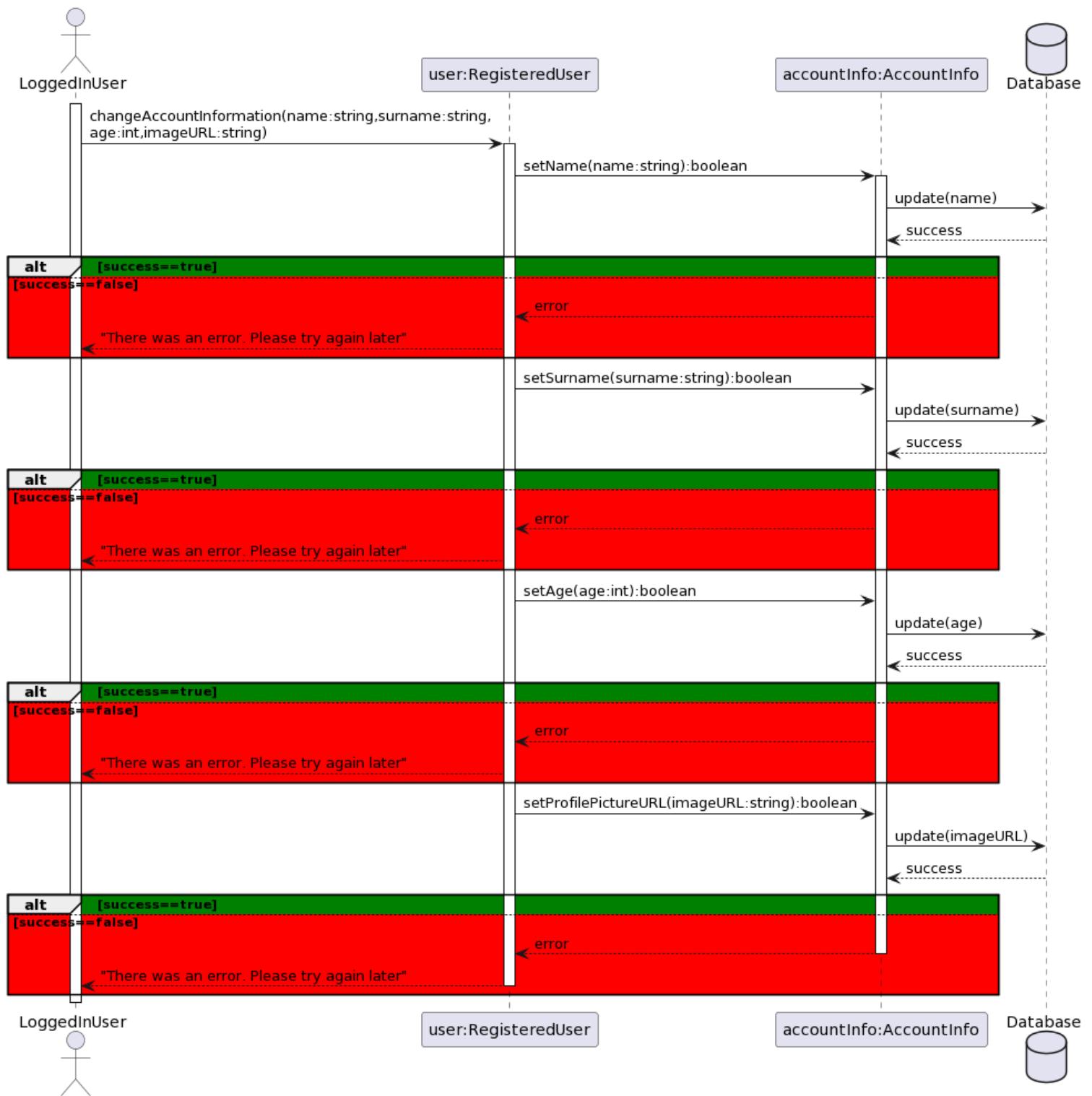
8. Auction

Demet Yaya



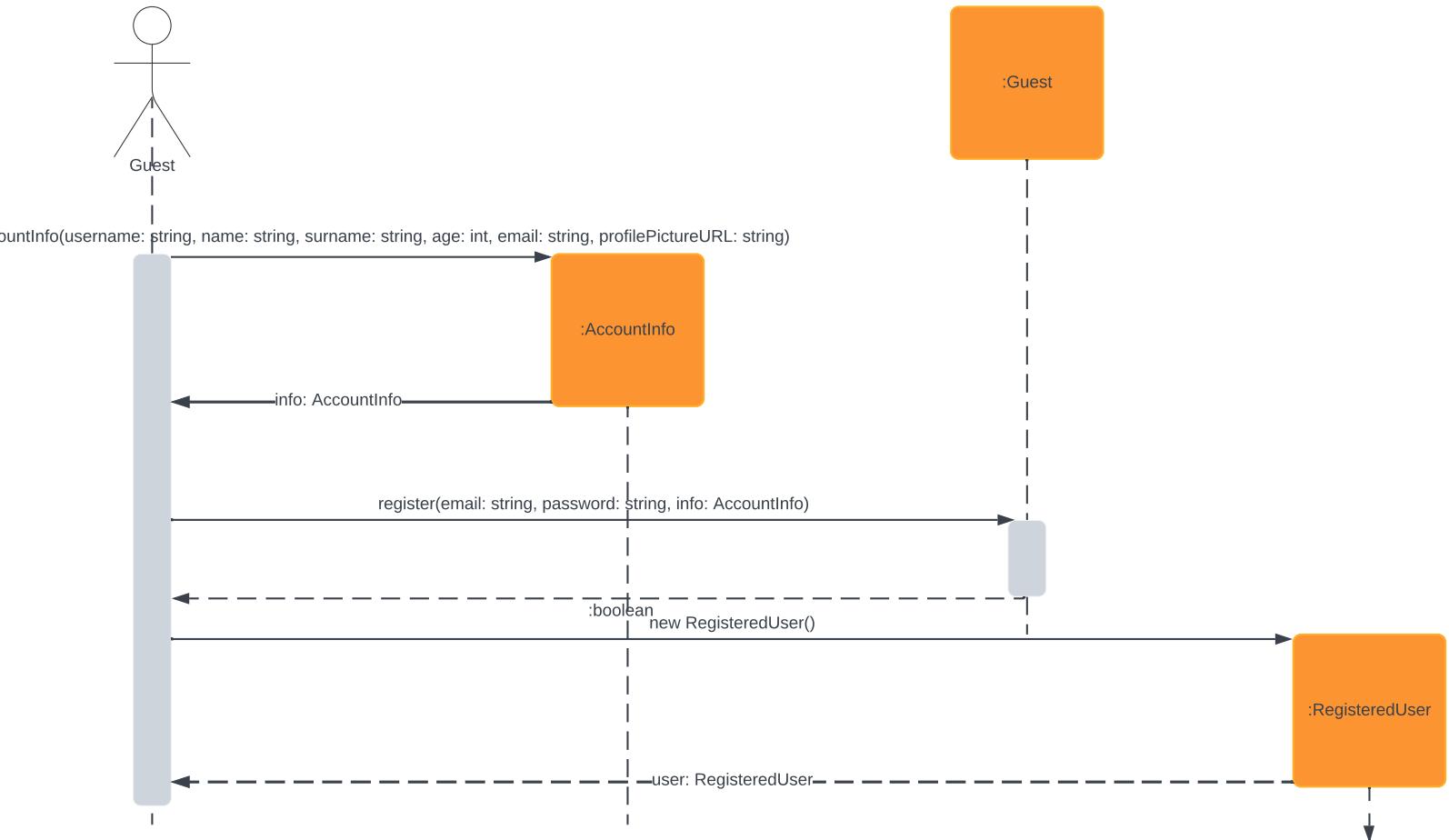
9. Editing Profile

Aziza Mankenova | Reviewer: Ali Can Milani



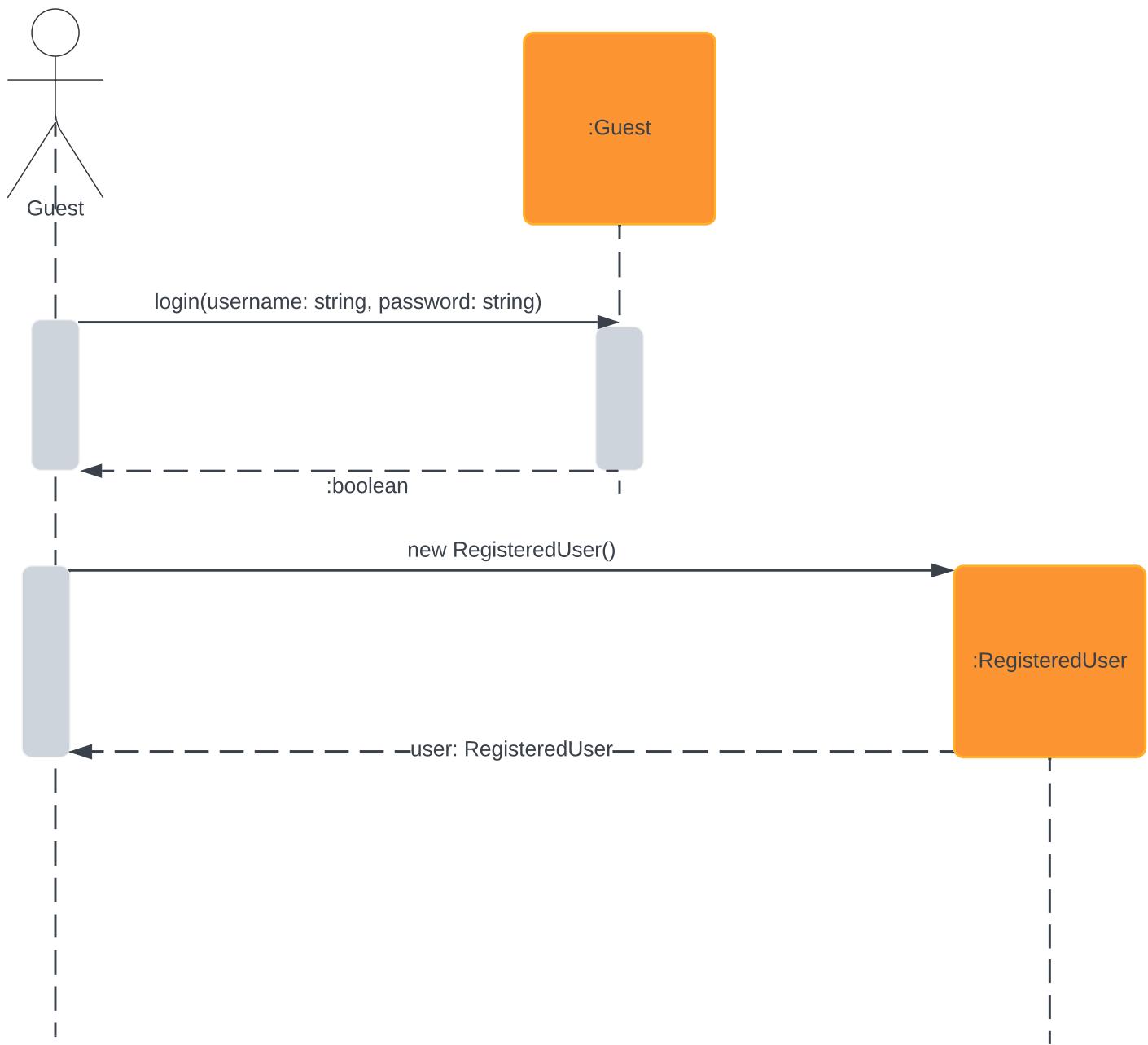
10. Registration

Güney Izol



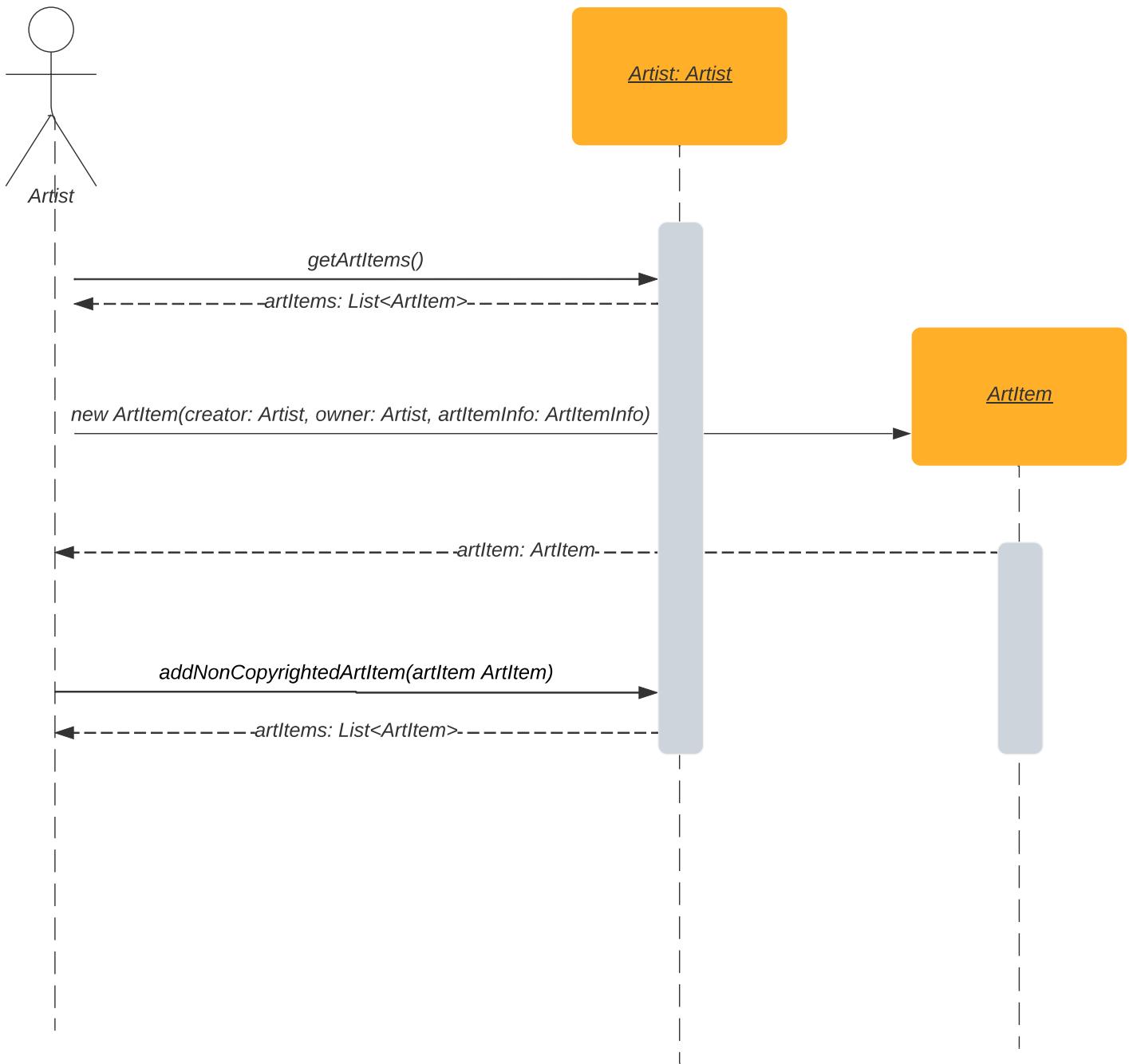
11. Login

Güney İzol



12. Adding Art Item

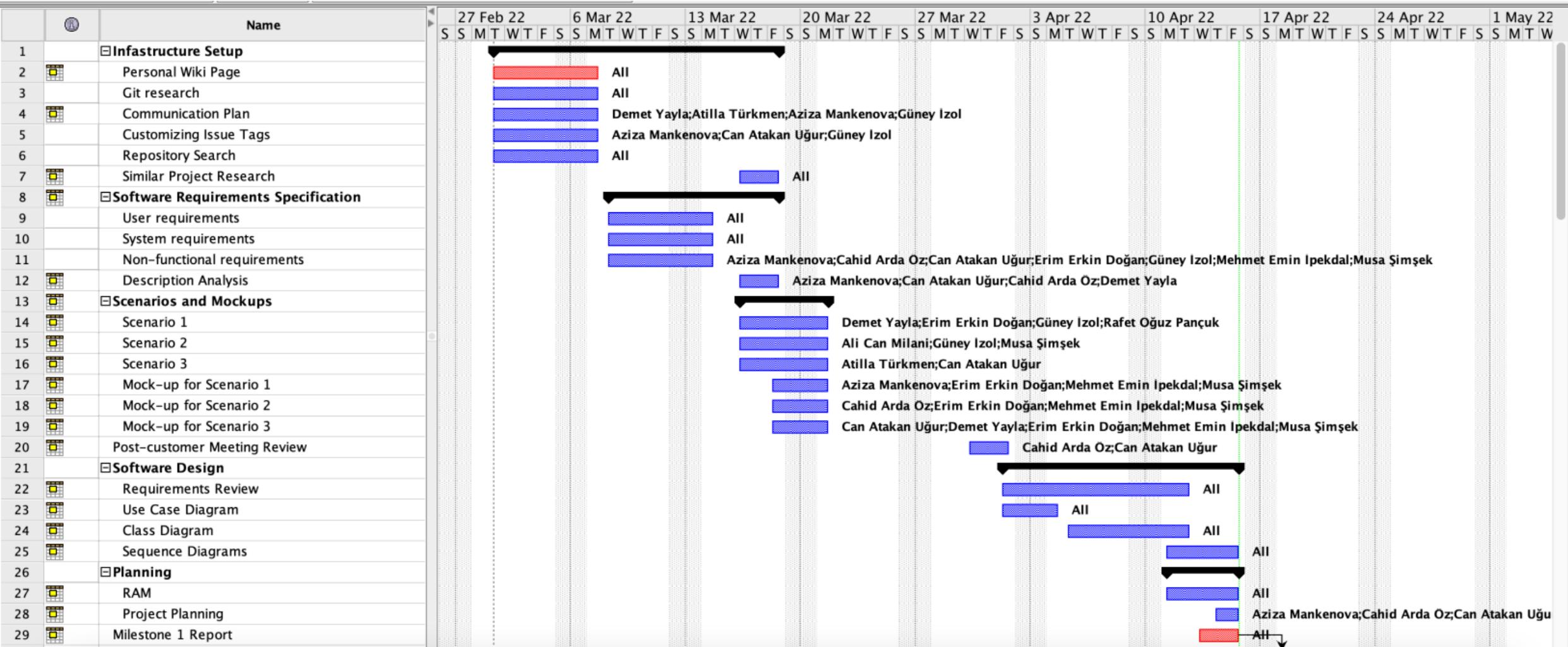
Atilla Türkmen | Reviewer: Hasan Bingölbali



Project Plan

		Name	Duration	Start	Finish	Predecessors	Resource Names
1		■ Infrastructure Setup	14 days?	3/1/22 8:00 AM	3/18/22 5:00 PM		
2		Personal Wiki Page	5 days?	3/1/22 8:00 AM	3/7/22 5:00 PM	All	
3		Git research	5 days?	3/1/22 8:00 AM	3/7/22 5:00 PM	All	
4		Communication Plan	5 days	3/1/22 8:00 AM	3/7/22 5:00 PM	Demet Yayla;Atilla Türkmen;Aziza Mankenova;Güney İzol	
5		Customizing Issue Tags	5 days	3/1/22 8:00 AM	3/7/22 5:00 PM	Aziza Mankenova;Can Atakan Uğur;Güney İzol	
6		Repository Search	5 days?	3/1/22 8:00 AM	3/7/22 5:00 PM	All	
7		Similar Project Research	3 days?	3/16/22 8:00 AM	3/18/22 5:00 PM	All	
8		■ Software Requirements Specification	9 days?	3/8/22 8:00 AM	3/18/22 5:00 PM		
9		User requirements	5 days?	3/8/22 8:00 AM	3/14/22 5:00 PM	All	
10		System requirements	5 days?	3/8/22 8:00 AM	3/14/22 5:00 PM	All	
11		Non-functional requirements	5 days?	3/8/22 8:00 AM	3/14/22 5:00 PM	Aziza Mankenova;Cahid Arda Öz;Can Atakan Uğur;Erim Erkin Doğan;Güney İzol;Mehmet Emin İpekdal;Musa Şimşek	
12		Description Analysis	3 days	3/16/22 8:00 AM	3/18/22 5:00 PM	Aziza Mankenova;Can Atakan Uğur;Cahid Arda Öz;Demet Yayla	
13		■ Scenarios and Mockups	4 days?	3/16/22 8:00 AM	3/21/22 5:00 PM		
14		Scenario 1	4 days?	3/16/22 8:00 AM	3/21/22 5:00 PM	Demet Yayla;Erim Erkin Doğan;Güney İzol;Rafet Oğuz Pançuk	
15		Scenario 2	4 days?	3/16/22 8:00 AM	3/21/22 5:00 PM	Ali Can Milani;Güney İzol;Musa Şimşek	
16		Scenario 3	4 days?	3/16/22 8:00 AM	3/21/22 5:00 PM	Atilla Türkmen;Can Atakan Uğur	
17		Mock-up for Scenario 1	2 days?	3/18/22 8:00 AM	3/21/22 5:00 PM	Aziza Mankenova;Erim Erkin Doğan;Mehmet Emin İpekdal;Musa Şimşek	
18		Mock-up for Scenario 2	2 days?	3/18/22 8:00 AM	3/21/22 5:00 PM	Cahid Arda Öz;Erim Erkin Doğan;Mehmet Emin İpekdal;Musa Şimşek	
19		Mock-up for Scenario 3	2 days?	3/18/22 8:00 AM	3/21/22 5:00 PM	Can Atakan Uğur;Demet Yayla;Erim Erkin Doğan;Mehmet Emin İpekdal;Musa Şimşek	
20		Post-customer Meeting Review	3 days	3/30/22 8:00 AM	4/1/22 5:00 PM	Cahid Arda Öz;Can Atakan Uğur	
21		■ Software Design	11 days?	4/1/22 8:00 AM	4/15/22 5:00 PM		
22		Requirements Review	8 days?	4/1/22 8:00 AM	4/12/22 5:00 PM	All	
23		Use Case Diagram	2 days?	4/1/22 8:00 AM	4/4/22 5:00 PM	All	
24		Class Diagram	6 days?	4/5/22 8:00 AM	4/12/22 5:00 PM	All	
25		Sequence Diagrams	5 days?	4/11/22 8:00 AM	4/15/22 5:00 PM	All	
26		■ Planning	5 days?	4/11/22 8:00 AM	4/15/22 5:00 PM		
27		RAM	5 days?	4/11/22 8:00 AM	4/15/22 5:00 PM	All	
28		Project Planning	2 days	4/14/22 8:00 AM	4/15/22 5:00 PM	Aziza Mankenova;Cahid Arda Öz;Can Atakan Uğur;Demet Yayla;Erim Erkin Doğan;Hasan Bingölbali	
29		Milestone 1 Report	3 days?	4/13/22 8:00 AM	4/15/22 5:00 PM	All	

30	 	Practice Application	24 days?	4/18/22 8:00 AM	5/19/22 5:00 PM	29		
31		Research & Planning	2 days	4/18/22 8:00 AM	4/19/22 5:00 PM			
32	 	Research on different frameworks	2 days	4/18/22 8:00 AM	4/19/22 5:00 PM		All	
33	 	Deciding which API functions to implement	2 days	4/18/22 8:00 AM	4/19/22 5:00 PM		All	
34	 	Research on APIs	2 days	4/18/22 8:00 AM	4/19/22 5:00 PM		All	
35	 	Software Design for Practice App	7 days	4/20/22 8:00 AM	4/28/22 5:00 PM	31		
36		Requirements for Practice App	1 day	4/20/22 8:00 AM	4/20/22 5:00 PM		All	
37	 	Basic Scenarios & Mock-ups for Practice App	1 day	4/21/22 8:00 AM	4/21/22 5:00 PM	36	All	
38	 	Use Case Diagram for Practice App	1 day	4/22/22 8:00 AM	4/22/22 5:00 PM	37	All	
39	 	Class Diagram for Practice App	2 days	4/25/22 8:00 AM	4/26/22 5:00 PM	38	All	
40	 	Sequence Diagrams for Practice App	2 days	4/27/22 8:00 AM	4/28/22 5:00 PM	39	All	
41	 	Implementation	6 days	4/29/22 8:00 AM	5/6/22 5:00 PM	35		
42		Implement the MVC App	3 days	4/29/22 8:00 AM	5/3/22 5:00 PM		All	
43		Implement Web APIs	3 days	5/4/22 8:00 AM	5/6/22 5:00 PM	42	All	
44	 	Unit Tests	3 days	5/9/22 8:00 AM	5/11/22 5:00 PM	41	All	
45		API Documentation	2 days?	5/12/22 8:00 AM	5/13/22 5:00 PM	44	All	
46	 	Dockerization	2 days?	5/16/22 8:00 AM	5/17/22 5:00 PM	45	All	
47		Deployment	2 days?	5/18/22 8:00 AM	5/19/22 5:00 PM	46	All	
48		Milestone 2 Report	3 days?	5/20/22 8:00 AM	5/24/22 5:00 PM	30	All	



	Name	0 Mar 22	27 Mar 22	3 Apr 22	10 Apr 22	17 Apr 22	24 Apr 22	1 May 22	8 May 22	15 May 22	22 May 22
		MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS	MTWTFSS
30	■ Practice Application										
31	■ Research & Planning										
32	Research on different frameworks										
33	Deciding which API functions to implement										
34	Research on APIs										
35	■ Software Design for Practice App										
36	Requirements for Practice App										
37	Basic Scenarios & Mock-ups for Practice App										
38	Use Case Diagram for Practice App										
39	Class Diagram for Practice App										
40	Sequence Diagrams for Practice App										
41	■ Implementation										
42	Implement the MVC App										
43	Implement Web APIs										
44	Unit Tests										
45	API Documentation										
46	Dockerization										
47	Deployment										
48	Milestone 2 Report										

The Gantt chart illustrates the project timeline across four months. The tasks are color-coded by category:

- Yellow tasks (Planning):** Practice Application, Research & Planning, Software Design for Practice App, Implementation.
- Red tasks (Design):** Requirements for Practice App, Basic Scenarios & Mock-ups for Practice App, Use Case Diagram for Practice App, Class Diagram for Practice App, Sequence Diagrams for Practice App, Implement the MVC App, Implement Web APIs, Unit Tests, API Documentation, Dockerization, Deployment.
- Green tasks (Implementation):** Milestone 2 Report.

Milestones are indicated by large black arrows pointing downwards at specific dates:

- 0 Mar 22: Milestone 1 (covering Research & Planning)
- 17 Apr 22: Milestone 2 (covering Software Design for Practice App)
- 24 Apr 22: Milestone 3 (covering Implementation)
- 1 May 22: Milestone 4 (covering Implementation)
- 8 May 22: Milestone 5 (covering Implementation)
- 15 May 22: Milestone 6 (covering Implementation)
- 22 May 22: Milestone 7 (covering Milestone 2 Report)

		Name	Duration	Start	Finish	Predecessors	Resource Names
1		Project Initialization	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		
2		Frontend	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		
3		Frontend Meeting #1	0 days	10/17/22 8:00 AM	10/17/22 8:00 AM		Frontend Team
4		Project Initialization	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		Frontend Team
5		Mobile	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		
6		Mobile Meeting #1	0 days	10/17/22 8:00 AM	10/17/22 8:00 AM		Mobile Team
7		Project Initialization	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		Mobile Team
8		Backend	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		
9		Backend Meeting #1	0 days	10/17/22 8:00 AM	10/17/22 8:00 AM		Backend Team
10		Project Initialization	5 days?	10/17/22 8:00 AM	10/21/22 5:00 PM		Backend Team
11		Implement: Authorization	5 days?	10/24/22 8:00 AM	10/28/22 5:00 PM	1	
12		Endpoint Decision: Authorization	1 day	10/24/22 8:00 AM	10/24/22 5:00 PM		
13		Frontend	4 days?	10/24/22 5:00 PM	10/28/22 5:00 PM	12	
14		Frontend Meeting #2	0 days	10/24/22 5:00 PM	10/24/22 5:00 PM		Frontend Team
15		Implement Register	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Frontend Team
16		Implement Sign-in	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Frontend Team
17		Implement Password Reset	4 days	10/25/22 8:00 AM	10/28/22 5:00 PM		Frontend Team
18		Mobile	4 days?	10/24/22 5:00 PM	10/28/22 5:00 PM	12	
19		Mobile Meeting #2	0 days	10/24/22 5:00 PM	10/24/22 5:00 PM		Mobile Team
20		Implement Register	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Mobile Team
21		Implement Sign-in	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Mobile Team
22		Implement Password Reset	4 days	10/25/22 8:00 AM	10/28/22 5:00 PM		Mobile Team
23		Implement Sign-in/Register with Google Account	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Mobile Team
24		Backend	4 days?	10/24/22 5:00 PM	10/28/22 5:00 PM	12	
25		Backend Meeting #2	0 days	10/24/22 5:00 PM	10/24/22 5:00 PM		Backend Team
26		Implement Register	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Backend Team
27		Implement Sign-in	4 days?	10/25/22 8:00 AM	10/28/22 5:00 PM		Backend Team
28		Implement Password Reset	4 days	10/25/22 8:00 AM	10/28/22 5:00 PM		Backend Team
29		Implement: Profile Page	5 days?	10/31/22 8:00 AM	11/4/22 5:00 PM	11	

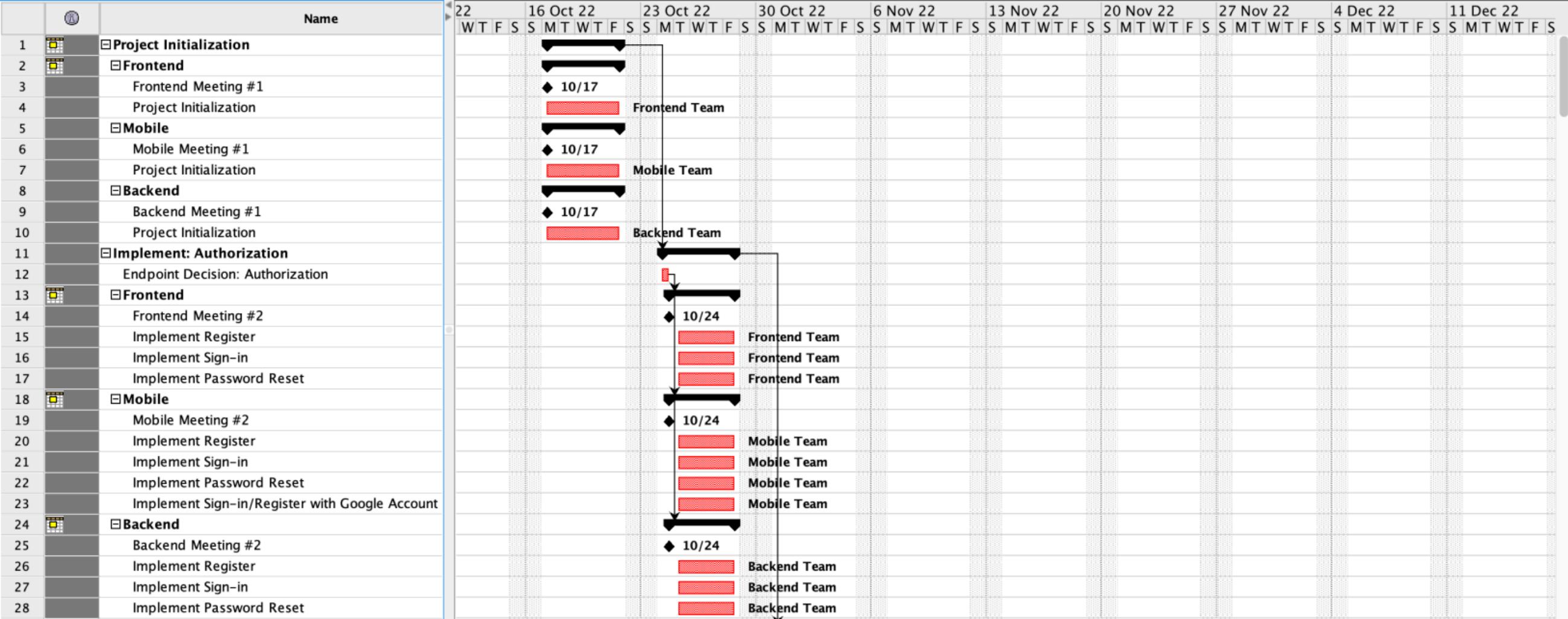
30		Endpoint Decision: Profile Page	1 day	10/31/22 8:00 AM	10/31/22 5:00 PM		
31		Frontend	4 days?	10/31/22 5:00 PM	11/4/22 5:00 PM	30	
32		Frontend Meeting #3	0 days	10/31/22 5:00 PM	10/31/22 5:00 PM		Frontend Team
33		Implement Profile Page	4 days?	11/1/22 8:00 AM	11/4/22 5:00 PM		Frontend Team
34		Mobile	4 days?	10/31/22 5:00 PM	11/4/22 5:00 PM	30	
35		Mobile Meeting #3	0 days	10/31/22 5:00 PM	10/31/22 5:00 PM		Mobile Team
36		Implement Profile Page	4 days?	11/1/22 8:00 AM	11/4/22 5:00 PM		Mobile Team
37		Backend	4 days?	10/31/22 5:00 PM	11/4/22 5:00 PM	30	
38		Backend Meeting #3	0 days	10/31/22 5:00 PM	10/31/22 5:00 PM		Backend Team
39		Implement Profile Page	4 days?	11/1/22 8:00 AM	11/4/22 5:00 PM		Backend Team
40		Implement: Settings and Notifications	5 days?	11/7/22 8:00 AM	11/11/22 5:00 PM	29	
41		Endpoint Decision: Settings, GDPR requirements and notifications	1 day	11/7/22 8:00 AM	11/7/22 5:00 PM		
42		Frontend	4 days?	11/7/22 5:00 PM	11/11/22 5:00 PM	41	
43		Frontend Meeting #4	0 days	11/7/22 5:00 PM	11/7/22 5:00 PM		Frontend Team
44		Implement Profile Settings	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Frontend Team
45		Implement Account Settings	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Frontend Team
46		Implement Notifications	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Frontend Team
47		Mobile	4 days?	11/7/22 5:00 PM	11/11/22 5:00 PM	41	
48		Mobile Meeting #4	0 days	11/7/22 5:00 PM	11/7/22 5:00 PM		Mobile Team
49		Implement Profile Settings	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Mobile Team
50		Implement Account Settings	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Mobile Team
51		Implement Notifications	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Mobile Team
52		Backend	4 days?	11/7/22 5:00 PM	11/11/22 5:00 PM	41	
53		Backend Meeting #4	0 days	11/7/22 5:00 PM	11/7/22 5:00 PM		Backend Team
54		Implement Profile Settings	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Backend Team
55		Implement Account Settings	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Backend Team
56		Implement Notifications	4 days?	11/8/22 8:00 AM	11/11/22 5:00 PM		Backend Team
57		Implement: Home Page	5 days?	11/14/22 8:00 AM	11/18/22 5:00 PM	40	

58		Endpoint Decision: Home page and recommendations	1 day	11/14/22 8:00 AM	11/14/22 5:00 PM			
59		☒Frontend	4 days?	11/14/22 5:00 PM	11/18/22 5:00 PM	58		
60		Frontend Meeting #5	0 days	11/14/22 5:00 PM	11/14/22 5:00 PM			Frontend Team
61		Implement Home Page	4 days?	11/15/22 8:00 AM	11/18/22 5:00 PM			Frontend Team
62		☒Mobile	4 days?	11/14/22 5:00 PM	11/18/22 5:00 PM	58		
63		Mobile Meeting #4	0 days	11/14/22 5:00 PM	11/14/22 5:00 PM			Mobile Team
64		Implement Home Page	4 days?	11/15/22 8:00 AM	11/18/22 5:00 PM			Mobile Team
65		☒Backend	4 days?	11/14/22 5:00 PM	11/18/22 5:00 PM	58		
66		Backend Meeting #4	0 days	11/14/22 5:00 PM	11/14/22 5:00 PM			Backend Team
67		Implement Recommendations	4 days?	11/15/22 8:00 AM	11/18/22 5:00 PM			Backend Team
68		Implement Home Page	4 days?	11/15/22 8:00 AM	11/18/22 5:00 PM			Backend Team
69		☒Implement: Discussion Forum	5 days?	11/21/22 8:00 AM	11/25/22 5:00 PM	57		
70		Endpoint Decision: Discussion Forum	1 day	11/21/22 8:00 AM	11/21/22 5:00 PM			
71		☒Frontend	4 days?	11/21/22 5:00 PM	11/25/22 5:00 PM	70		
72		Frontend Meeting #6	0 days	11/21/22 5:00 PM	11/21/22 5:00 PM			Frontend Team
73		Implement Discussion Forum	4 days?	11/22/22 8:00 AM	11/25/22 5:00 PM			Frontend Team
74		Implement Discussion Annotations	4 days?	11/22/22 8:00 AM	11/25/22 5:00 PM			Frontend Team
75		☒Mobile	4 days?	11/21/22 5:00 PM	11/25/22 5:00 PM	70		
76		Mobile Meeting #6	0 days	11/21/22 5:00 PM	11/21/22 5:00 PM			Mobile Team
77		Implement Discussion Forum	4 days?	11/22/22 8:00 AM	11/25/22 5:00 PM			Mobile Team
78		Implement Discussion Annotations	4 days?	11/22/22 8:00 AM	11/25/22 5:00 PM			Mobile Team
79		☒Backend	4 days?	11/21/22 5:00 PM	11/25/22 5:00 PM	70		
80		Backend Meeting #6	0 days	11/21/22 5:00 PM	11/21/22 5:00 PM			Backend Team
81		Implement Discussion Forum	4 days?	11/22/22 8:00 AM	11/25/22 5:00 PM			Backend Team
82		Implement Discussion Annotations	4 days?	11/22/22 8:00 AM	11/25/22 5:00 PM			Backend Team
83		☒Implement: Art Item Posts and Replies	5 days?	11/28/22 8:00 AM	12/2/22 5:00 PM	69		
84		Endpoint Decision: Art Item Posts and Replies	1 day	11/28/22 8:00 AM	11/28/22 5:00 PM			
85		☒Frontend	4 days?	11/28/22 5:00 PM	12/2/22 5:00 PM	84		

86	Frontend Meeting #7	0 days	11/28/22 5:00 PM	11/28/22 5:00 PM		Frontend Team
87	Implement Art Item Posts	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Frontend Team
88	Implement Replies	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Frontend Team
89	Implement Art Item Annotations	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Frontend Team
90	✉️ Mobile	4 days?	11/28/22 5:00 PM	12/2/22 5:00 PM	84	
91	Mobile Meeting #7	0 days	11/28/22 5:00 PM	11/28/22 5:00 PM		Mobile Team
92	Implement Art Item Posts	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Mobile Team
93	Implement Replies	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Mobile Team
94	Implement Art Item Annotations	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Mobile Team
95	✉️ Backend	4 days?	11/28/22 5:00 PM	12/2/22 5:00 PM	84	
96	Backend Meeting #7	0 days	11/28/22 5:00 PM	11/28/22 5:00 PM		Backend Team
97	Implement Art Item Posts	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Backend Team
98	Implement Replies	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Backend Team
99	Implement Art Item Annotations	4 days?	11/29/22 8:00 AM	12/2/22 5:00 PM		Backend Team
100	✉️ Implement: Search & Filtering	5 days?	12/5/22 8:00 AM	12/9/22 5:00 PM	83	
101	Endpoint Decision: Search & Filtering	1 day	12/5/22 8:00 AM	12/5/22 5:00 PM		
102	✉️ Frontend	4 days?	12/5/22 5:00 PM	12/9/22 5:00 PM	101	
103	Frontend Meeting #8	0 days	12/5/22 5:00 PM	12/5/22 5:00 PM		Frontend Team
104	Implement Search	4 days?	12/6/22 8:00 AM	12/9/22 5:00 PM		Frontend Team
105	Implement Filtering	4 days?	12/6/22 8:00 AM	12/9/22 5:00 PM		Frontend Team
106	✉️ Mobile	4 days?	12/5/22 5:00 PM	12/9/22 5:00 PM	101	
107	Mobile Meeting #8	0 days	12/5/22 5:00 PM	12/5/22 5:00 PM		Mobile Team
108	Implement Search	4 days?	12/6/22 8:00 AM	12/9/22 5:00 PM		Mobile Team
109	Implement Filtering	4 days?	12/6/22 8:00 AM	12/9/22 5:00 PM		Mobile Team
110	✉️ Backend	4 days?	12/5/22 5:00 PM	12/9/22 5:00 PM	101	
111	Backend Meeting #8	0 days	12/5/22 5:00 PM	12/5/22 5:00 PM		Backend Team
112	Implement Search	4 days?	12/6/22 8:00 AM	12/9/22 5:00 PM		Backend Team
113	Implement Filtering	4 days?	12/6/22 8:00 AM	12/9/22 5:00 PM		Backend Team

114	☒ Implement: Events	5 days?	12/12/22 8:00 AM	12/16/22 5:00 PM	100	
115	Endpoint Decision: Exhibitions & Online Galleries	1 day	12/12/22 8:00 AM	12/12/22 5:00 PM		
116	☒ Frontend	4 days?	12/12/22 5:00 PM	12/16/22 5:00 PM	115	
117	Frontend Meeting #9	0 days	12/12/22 5:00 PM	12/12/22 5:00 PM		Frontend Team
118	Implement Exhibitions	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Frontend Team
119	Implement Online Galleries	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Frontend Team
120	Implement Annotations for Exhibitions & Online Galleries	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Frontend Team
121	☒ Mobile	4 days?	12/12/22 5:00 PM	12/16/22 5:00 PM	115	
122	Mobile Meeting #9	0 days	12/12/22 5:00 PM	12/12/22 5:00 PM		Mobile Team
123	Implement Exhibitions	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Mobile Team
124	Implement Online Galleries	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Mobile Team
125	Implement Annotations for Exhibitions & Online Galleries	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Mobile Team
126	☒ Backend	4 days?	12/12/22 5:00 PM	12/16/22 5:00 PM	115	
127	Backend Meeting #9	0 days	12/12/22 5:00 PM	12/12/22 5:00 PM		Backend Team
128	Implement Exhibitions	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Backend Team
129	Implement Online Galleries	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Backend Team
130	Implement Annotations for Exhibitions & Online Galleries	4 days?	12/13/22 8:00 AM	12/16/22 5:00 PM		Backend Team
131	☒ Implement: Auction & Bidding	5 days?	12/19/22 8:00 AM	12/23/22 5:00 PM	114	
132	Endpoint Decision: Auction & Bidding	1 day	12/19/22 8:00 AM	12/19/22 5:00 PM		
133	☒ Frontend	4 days?	12/19/22 5:00 PM	12/23/22 5:00 PM	132	
134	Frontend Meeting #10	0 days	12/19/22 5:00 PM	12/19/22 5:00 PM		Frontend Team
135	Implement Auctions	4 days?	12/20/22 8:00 AM	12/23/22 5:00 PM		Frontend Team
136	Implement Bidding	4 days?	12/20/22 8:00 AM	12/23/22 5:00 PM		Frontend Team
137	☒ Mobile	4 days?	12/19/22 5:00 PM	12/23/22 5:00 PM	132	
138	Mobile Meeting #10	0 days	12/19/22 5:00 PM	12/19/22 5:00 PM		Mobile Team
139	Implement Auctions	4 days?	12/20/22 8:00 AM	12/23/22 5:00 PM		Mobile Team
140	Implement Bidding	4 days?	12/20/22 8:00 AM	12/23/22 5:00 PM		Mobile Team
141	☒ Backend	4 days?	12/19/22 5:00 PM	12/23/22 5:00 PM	132	
142	Backend Meeting #10	0 days	12/19/22 5:00 PM	12/19/22 5:00 PM		Backend Team

143	Implement Auctions	4 days?	12/20/22 8:00 AM	12/23/22 5:00 PM		Backend Team
144	Implement Bidding	4 days?	12/20/22 8:00 AM	12/23/22 5:00 PM		Backend Team
145	▣ Implement: Platform Management	5 days?	12/26/22 8:00 AM	12/30/22 5:00 PM	131	
146	Endpoint Decision: Admin functions, reporting and verification	1 day	12/26/22 8:00 AM	12/26/22 5:00 PM		
147	▣ Frontend	4 days?	12/26/22 5:00 PM	12/30/22 5:00 PM	146	
148	Frontend Meeting #11	0 days	12/26/22 5:00 PM	12/26/22 5:00 PM		Frontend Team
149	Implement Admin User Functions	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Frontend Team
150	Implement Copyright Reporting System	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Frontend Team
151	Implement Verification System	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Frontend Team
152	▣ Mobile	4 days?	12/26/22 5:00 PM	12/30/22 5:00 PM	146	
153	Mobile Meeting #11	0 days	12/26/22 5:00 PM	12/26/22 5:00 PM		Mobile Team
154	Implement Admin User Functions	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Mobile Team
155	Implement Copyright Reporting System	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Mobile Team
156	Implement Verification System	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Mobile Team
157	▣ Backend	4 days?	12/26/22 5:00 PM	12/30/22 5:00 PM	146	
158	Backend Meeting #11	0 days	12/26/22 5:00 PM	12/26/22 5:00 PM		Backend Team
159	Implement Admin User Functions	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Backend Team
160	Implement Copyright Reporting System	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Backend Team
161	Implement Verification System	4 days?	12/27/22 8:00 AM	12/30/22 5:00 PM		Backend Team
162	Unit Testing	2 days	1/2/23 8:00 AM	1/3/23 5:00 PM	145	All
163	Dockerization & Deployment	1 day	1/4/23 8:00 AM	1/4/23 5:00 PM	162	All



	Name	22	16 Oct 22	23 Oct 22	30 Oct 22	6 Nov 22	13 Nov 22	20 Nov 22	27 Nov 22	4 Dec 22	11 Dec 22	
		W	T	F	S	S	M	T	W	F	S	S
57	☐ Implement: Home Page											
58	Endpoint Decision: Home page and recommendation system											
59	☒ Frontend											
60	Frontend Meeting #5											
61	Implement Home Page											
62	☒ Mobile											
63	Mobile Meeting #4											
64	Implement Home Page											
65	☒ Backend											
66	Backend Meeting #4											
67	Implement Recommendations											
68	Implement Home Page											
69	☐ Implement: Discussion Forum											
70	Endpoint Decision: Discussion Forum											
71	☒ Frontend											
72	Frontend Meeting #6											
73	Implement Discussion Forum											
74	Implement Discussion Annotations											
75	☒ Mobile											
76	Mobile Meeting #6											
77	Implement Discussion Forum											
78	Implement Discussion Annotations											
79	☒ Backend											
80	Backend Meeting #6											
81	Implement Discussion Forum											
82	Implement Discussion Annotations											

The Gantt chart illustrates the project timeline from October 22 to December 22, 2022. The tasks are categorized by team and phase:

- Frontend Team:**
 - 16 Oct 22: Frontend Meeting #5
 - 23 Oct 22: Implement Home Page
 - 13 Nov 22: Frontend Meeting #6
 - 20 Nov 22: Implement Discussion Forum
 - 27 Nov 22: Implement Discussion Annotations
 - 4 Dec 22: Backend Meeting #6
 - 11 Dec 22: Implement Discussion Forum
 - 18 Dec 22: Implement Discussion Annotations
- Mobile Team:**
 - 16 Oct 22: Mobile Meeting #4
 - 23 Oct 22: Implement Home Page
 - 13 Nov 22: Mobile Meeting #6
 - 20 Nov 22: Implement Discussion Forum
 - 27 Nov 22: Implement Discussion Annotations
 - 4 Dec 22: Backend Meeting #6
 - 11 Dec 22: Implement Discussion Forum
 - 18 Dec 22: Implement Discussion Annotations
- Backend Team:**
 - 16 Oct 22: Backend Meeting #4
 - 23 Oct 22: Implement Recommendations
 - 13 Nov 22: Backend Meeting #6
 - 20 Nov 22: Implement Home Page
 - 27 Nov 22: Backend Meeting #6
 - 4 Dec 22: Backend Meeting #6
 - 11 Dec 22: Backend Meeting #6
 - 18 Dec 22: Backend Meeting #6
- Another Frontend Team:**
 - 16 Oct 22: Implement: Home Page
 - 23 Oct 22: Endpoint Decision: Home page and recommendation system
 - 13 Nov 22: Implement: Discussion Forum
 - 20 Nov 22: Endpoint Decision: Discussion Forum
 - 27 Nov 22: Implement: Discussion Forum
 - 4 Dec 22: Implement: Discussion Annotations
 - 11 Dec 22: Implement: Discussion Annotations

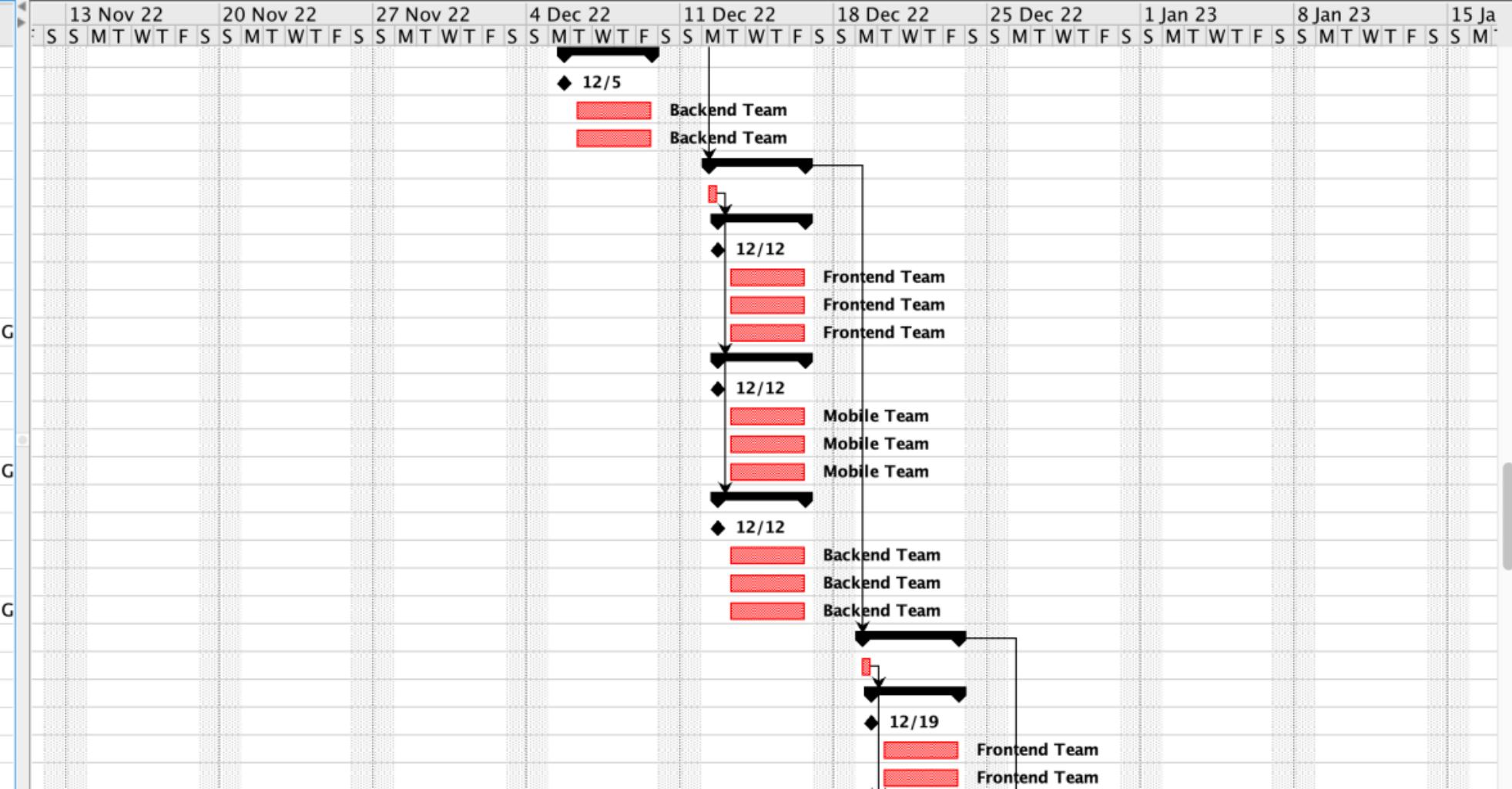
		Name	22	16 Oct 22	23 Oct 22	30 Oct 22	6 Nov 22	13 Nov 22	20 Nov 22	27 Nov 22	4 Dec 22	11 Dec 22	
			S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	S M T W T F S	
83		☐ Implement: Art Item Posts and Replies											
84		Endpoint Decision: Art Item Posts and Replies											
85	📅	☐ Frontend											
86		Frontend Meeting #7											
87		Implement Art Item Posts											
88		Implement Replies											
89		Implement Art Item Annotations											
90	📅	☐ Mobile											
91		Mobile Meeting #7											
92		Implement Art Item Posts											
93		Implement Replies											
94		Implement Art Item Annotations											
95	📅	☐ Backend											
96		Backend Meeting #7											
97		Implement Art Item Posts											
98		Implement Replies											
99		Implement Art Item Annotations											
100		☐ Implement: Search & Filtering											
101		Endpoint Decision: Search & Filtering											
102	📅	☐ Frontend											
103		Frontend Meeting #8											
104		Implement Search											
105		Implement Filtering											
106	📅	☐ Mobile											
107		Mobile Meeting #8											
108		Implement Search											
109		Implement Filtering											

The Gantt chart visualizes the project timeline across four months. The tasks are grouped into four main phases:

- Phase 1 (Oct 22 - Nov 27):** Art Item Posts and Replies. This phase includes a meeting and three implementation tasks for the Frontend Team.
- Phase 2 (Nov 28 - Dec 4):** Art Item Posts and Replies. This phase includes a meeting and three implementation tasks for the Frontend Team.
- Phase 3 (Nov 28 - Dec 4):** Art Item Posts and Replies. This phase includes a meeting and three implementation tasks for the Mobile Team.
- Phase 4 (Nov 28 - Dec 4):** Art Item Posts and Replies. This phase includes a meeting and three implementation tasks for the Backend Team.
- Phase 5 (Dec 5 - Dec 11):** Search & Filtering. This phase includes a meeting and two implementation tasks for the Frontend Team, and one for the Mobile Team.

Milestones are indicated by diamonds on the timeline at specific dates: 11/28 and 12/5. The chart uses a color-coded legend where red represents the Frontend Team, blue represents the Mobile Team, and green represents the Backend Team.

		Name
110		Backend
111		Backend Meeting #8
112		Implement Search
113		Implement Filtering
114		Implement: Events
115		Endpoint Decision: Exhibitions & Online Galleries
116		Frontend
117		Frontend Meeting #9
118		Implement Exhibitions
119		Implement Online Galleries
120		Implement Annotations for Exhibitions & Online
121		Mobile
122		Mobile Meeting #9
123		Implement Exhibitions
124		Implement Online Galleries
125		Implement Annotations for Exhibitions & Online
126		Backend
127		Backend Meeting #9
128		Implement Exhibitions
129		Implement Online Galleries
130		Implement Annotations for Exhibitions & Online
131		Implement: Auction & Bidding
132		Endpoint Decision: Auction & Bidding
133		Frontend
134		Frontend Meeting #10
135		Implement Auctions
136		Implement Bidding



RAM

This is the Responsibility Assignment Matrix(RAM)

Sequence diagram: Copyright Infringement	N	N	N	N	L	N	N	N	N	N	N	N	N
Sequence diagram: Add art item	N	C	N	N	R	N	N	N	N	N	N	N	N
Sequence diagram: Auctioning	N	N	N	N	N	L	N	N	N	N	N	N	N
Planning													
RAM	C	C	L	C	C	C	C	C	N	C	C	N	
Project Planning	N	N	C	L	C	C	C	C	N	C	N	N	N
Milestone 1 Report													
Formatting and Table of contents	N	N	N	N	N	N	N	N	N	N	N	C	N
Executive summary	N	N	R	N	C	L	N	N	N	N	N	N	N
List status of deliverables	N	N	A	N	N	N	L	R	N	N	N	N	N
Evaluation of Deliverables	N	N	N	N	N	N	R	L	N	N	N	N	N
Evaluation of tools and processes	N	N	L	C	N	N	C	N	N	N	N	N	N
Summary of work done	C	N	N	N	N	N	C	C	C	N	L	N	
Combining deliverables	N	C	C	C	N	C	N	C	C	C	N	N	N
API													
Research APIs	L	C	C	C	R	R	R	R	R	A	A	A	
Web Application with Model View Controller & Application Programming Interface	A	L	C	C	C	R	R	R	R	A	A	A	
Choosing a framework	A	A	L	C	C	C	R	R	R	R	A	A	
Implementing the MVC App	A	A	A	L	C	C	C	R	R	R	R	A	
Implementing the Web APIs	A	A	A	A	L	C	C	C	R	R	R	R	
Quality Assurance and Dockerization	R	A	A	A	A	L	C	C	R	R	R	R	
Writing unit tests	R	R	A	A	A	A	L	C	C	C	R	R	
Containerization	R	R	R	A	A	A	A	L	C	C	C	R	
Continuous Deployment using Workflows/Pipelines	R	R	R	R	A	A	A	A	L	C	C	C	
Creating GitHub Actions	A	R	R	R	R	A	A	A	A	L	C	C	
Reflections on Implementation Efforts & DevOps	C	C	R	R	R	R	A	A	A	A	L	C	
Ethical Considerations & Lessons Learned	C	C	C	R	R	R	R	A	A	A	A	L	
Milestone 2													
Report	C	C	C	C	C	C	C	C	C	C	C	C	
Deliverables	C	C	C	C	C	C	C	C	C	C	C	C	
Project Initialization	C	C	C	C	C	C	C	C	C	C	C	C	
Revision of requirements	C	C	C	C	C	C	C	C	C	C	C	C	
Naming													
Name selection	C	C	C	C	C	C	C	C	C	C	C	C	
Logo creation	C	C	C	C	C	C	C	C	C	C	C	C	
Backend													
Sign-in And Register	N	C	N	N	L	N	N	C	N	N	C	N	
Profile Page	N	C	N	N	C	N	N	L	N	N	C	N	
Settings Page	N	C	N	N	C	N	N	C	N	N	L	N	
Home page and recommendations	N	L	N	N	C	N	N	C	N	N	C	N	
Discussion Forum	N	C	N	N	L	N	N	C	N	N	C	N	
Comments and ArtItem posts	N	C	N	N	C	N	N	L	N	N	C	N	

Communication Plan

Who	Where	When	Purpose
everyone	hybrid [(lounge, Café Neuro etc.) OR (zoom)]	Wednesday at 20.00	Opening new issues, deciding efforts for both existing non-touched issues and new ones, selecting the weekly tasks to be done, discussing the previous week's work (if we finished what we aimed to finish, what were the problems, what could have been better etc.)
everyone	Zoom	Every three weeks, after Wednesday meetings (the time and date to be arranged via voting for each occurrence that week)	Presentations on what each team has done since previous presentation (without too much technical detail, just to catch up with who is doing what)
everyone	WhatsApp	anytime	To arrange meetings face to face, to do casual talk
everyone	GitHub	anytime	Project development and tracking, issue opening and tracking, version tracking, documentation forming
everyone	Slack	anytime	To communicate on anything work related such as arranging work meeting, discussing to develop project etc. Installing the app to mobile phones is obligatory with notifications open.