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CEN302 – Software Engineering

HobbyTales Requirements Specification

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1. Executive Summary

1.1 Project Overview

In the digital age, social media platforms have transformed the way we connect, communicate, and share our experiences with others. These platforms have not only revolutionized our social interactions but have also influenced our behavior.

This influence has inspired the creation of this project. As is apparent from the first two sentences this project is on creating a social media. In our digital era they (social medias) do not come in few, they are from the most types and focuses, from general to social medias entirely for specific groups of communities. What we intend with our social media however is to use its influence and to encourage the users, from any group age to not be stuck in the virtualization and it's not healthy approach to human interaction.

Our main purpose is to connect people in a healthier outdoor “virtualization”, despite the features of any social media, our users’ posts are intended to be invitations to different activities. At the core of this social media project lies a vision to bridge the gap between the virtual and physical realms. By leveraging innovative technologies and the ubiquity of social networking platforms, we aim to create a digital community that inspires individuals to step away from their screens and immerse themselves in real-world experiences.

The impact of social media in encouraging people to engage in outdoor activities cannot be understated. With the rise of influencer culture and user-generated content, individuals have been inspired to venture outside their comfort zones and participate in a wide range of activities, from hiking and photography to culinary experiences and cultural events. By leveraging this influence, our social media project aims to amplify these positive effects, making exploration and experiential learning an integral part of people's lives.

Moreover, the project will emphasize community building and fostering connections among like-minded individuals. This sense of community will further motivate and inspire users to explore diverse activities and push their boundaries.

We recognize the importance of responsible use of technology and mindful engagement with the physical world. We aim to strike a balance between digital interaction and real-world experiences, encouraging users to utilize the platform as a catalyst for exploration.

In conclusion, this social media project represents an opportunity to leverage the power of technology to inspire individuals to step outside and embrace a world of possibilities.

1.2 Purpose and Scope of this Specification

In a world filled with diverse hobbies and outdoor activities, there exists a need for a social media platform that caters to the interests and passions of its users. This project aims to develop a

specialized social media platform that revolves around hobbies, empowering individuals to organize and participate in event-like posts centered on outdoor activities. By fostering connections, facilitating group participation, and promoting real-life experiences, this platform will inspire users to come together and embark on thrilling adventures.

The primary objective of this hobby-centric social media platform is to provide a space where users can create event-style posts based on their specific interests and activities. Whether it's hiking, biking, photography, sports, or any other outdoor pursuit, users will have the freedom to curate posts that invite like-minded individuals to join in. Through a straightforward and intuitive interface, users can easily create and manage these activity-based posts, specifying the time, date, and location for the event.

One of the key features of this platform is the "Join" button, enabling users to express their interest in participating in a particular activity. Once a user joins an event post, they will be presented with an option to join a chat space dedicated to that specific event. This chat space will serve as a virtual meeting point for participants, allowing them to connect, share ideas, discuss logistics, and build anticipation for the upcoming outdoor activity.

The time element plays a crucial role in this social media platform. Each event post will include a designated time when participants will meet and actively take part in the activity they signed up for. This not only provides a structured framework for planning and coordination but also ensures that users have a tangible goal to work towards. By having a set meeting time, participants can anticipate shared experiences, forge friendships, and foster a sense of community among fellow hobby enthusiasts.

This project acknowledges the significance of engaging with the physical world and the inherent value of real-life connections. While the social media platform facilitates digital interactions and event organization, its ultimate purpose is to inspire users to step outside, explore nature, and embrace the joys of their hobbies. By merging the virtual and physical realms, this platform aims to motivate individuals to experience the world in a more active, immersive, and socially fulfilling manner.

2. Product/Service Description

The purpose of this social media platform is to provide a comprehensive service for users to create, share, and discover event-based posts that announce a wide range of activities aligned with their interests. The platform aims to facilitate community engagement, foster real-life connections, and inspire individuals to participate in diverse events and experiences.

Our social media platform is designed to cater to the needs of individuals seeking to organize, publicize, and join various activities. The platform offers a user-friendly interface that empowers users to create detailed event-based posts, highlighting the nature of the activity, its date, time, location, and any relevant instructions or prerequisites.

Users can explore a rich array of activities organized by fellow community members, encompassing a wide spectrum of interests such as sports, arts, music, wellness, outdoor adventures, workshops, cultural events, and more. The platform provides intuitive search and filtering capabilities, allowing users to discover events that align with their specific preferences and geographic location.

To join an event, users simply click on the "Join" button, expressing their interest and intention to participate. This action establishes a connection between the event organizer and the participant, enabling seamless communication and coordination. Additionally, users gain access to a dedicated chat space associated with the event, providing a platform for participants to interact, ask questions, share suggestions, and build excitement prior to the activity.

The platform places great emphasis on facilitating real-life experiences. Each event post includes a scheduled meeting time, serving as a point of convergence for participants. This feature ensures that users have a set time to engage actively in the chosen activity, fostering a sense of commitment, punctuality, and shared enjoyment.

Furthermore, the social media platform encourages users to share their event experiences through posts, photos, videos, and comments. Participants can chronicle their adventures, highlight memorable moments, and inspire others within the community. This content-sharing feature not only captures the essence of each event but also facilitates community engagement and encourages participation in future activities.

The platform also incorporates feedback and rating systems, allowing users to provide reviews and evaluations for events they have attended. This information helps enhance the overall event quality, builds trust within the community, and assists future participants in making informed decisions.

In summary, our social media platform focuses on providing a comprehensive service for creating, sharing, and disc-

overing event-based posts. By facilitating seamless event organization, promoting real-life connections, and fostering a vibrant community of participants, the platform strives to inspire individuals to engage in exciting activities, expand their horizons, and forge lasting connections with like-minded individuals who share their passions.

2.1 Product Context

This product is designed to be independent and self-contained, providing a dedicated platform for creating, sharing, and discovering event-based posts. While it operates as a standalone social media platform, it does not rely on or interface with other external systems or platforms.

As a self-contained product, users can utilize all the features and functionalities within the platform itself, including creating event posts, joining activities, engaging in chat spaces, and sharing

event-related content. The platform provides a holistic experience, encompassing event organization, communication, and documentation, without the need for integration with external systems.

However, it's worth noting that the product may have its own ecosystem of users, event organizers, and participants, forming a community within the platform. Users can interact and connect with each other solely within the platform's environment, building relationships, sharing experiences, and discovering new activities organized by fellow users.

While the product does not rely on external systems, it may leverage standard web technologies and APIs for its internal operations. In addition to being a self-contained product, this social media platform utilizes various AWS (Amazon Web Services) services for essential functionalities such as authentication and data storage. These AWS services provide robust and reliable solutions to ensure the smooth operation of the platform.

These underlying technologies ensure the smooth functioning of the platform while maintaining its self-contained nature.

2.2 User Characteristics

There is one type of user that will interact with the system:

1. Hobby Enthusiast:
 - Experience: This user profile consists of individuals with varying levels of experience in their respective hobbies. They may range from beginners exploring a new interest to experienced enthusiasts with extensive knowledge and skills.
 - Technical Expertise: They may have basic to intermediate technical skills, comfortable with using smartphones, web browsers, and social media platforms. They are familiar with common features and functionalities found in social media applications.
 - Characteristics: These users are passionate about their hobbies and seek opportunities to connect with like-minded individuals. They value the ability to discover and participate in a wide range of activities through the platform. They may be actively involved in multiple hobbies and enjoy exploring new interests.
2. Event Organizer:
 - Experience: This user profile consists of individuals who have experience organizing and hosting events related to their hobbies or interests. They may have planned and executed activities in the past, demonstrating a level of expertise in event management.

- Technical Expertise: They possess intermediate to advanced technical skills, comfortable using digital tools and platforms for event organization and communication. They may have experience with event management software or similar platforms.
- Characteristics: These users have a knack for planning and coordinating activities. They enjoy taking the initiative to create engaging event posts and providing a positive experience for participants. They value the platform's ability to reach a wider audience and facilitate seamless communication with event attendees.

3. Activity Participant:

- Experience: This user profile includes individuals who enjoy participating in activities organized by others. They may have varying levels of experience in their chosen hobbies, ranging from beginners to advanced practitioners.
- Technical Expertise: They have basic to intermediate technical skills, able to navigate social media platforms, join events, and engage in communication features such as chat spaces. They are comfortable using smartphones or computers for online interactions.
- Characteristics: These users seek opportunities to explore their hobbies further and connect with individuals who share similar interests. They appreciate the convenience of discovering and joining activities through the platform. They may value flexibility in choosing activities that align with their schedules and preferences.

4. Content Contributor:

- Experience: This user profile consists of individuals who enjoy documenting and sharing their experiences within their hobbies. They may have experience in content creation, such as photography, videography, or writing, to capture and showcase their activities.
- Technical Expertise: They possess intermediate to advanced technical skills, proficient in using digital media tools for editing photos or videos. They are comfortable sharing multimedia content on social media platforms.
- Characteristics: These users are enthusiastic about capturing and sharing their hobby-related content. They appreciate the platform's ability to showcase their work, gather feedback, and inspire others. They may actively engage with the community, providing valuable insights and tips related to their hobbies.

2.3 Assumptions

- Internet Access: It is assumed that users have reliable internet access to connect to the social media platform, create posts, join activities, and engage with other participants. The platform relies on internet connectivity for its core functionality.
- Device Compatibility: The platform assumes that users have access to devices such as smartphones, tablets, or computers that are capable of accessing and interacting with the social media platform. The platform's user interface and features are designed to be compatible with common devices and web browsers.
- Standard Web Technologies: It is assumed that users have browsers or devices that support standard web technologies such as HTML5, CSS, and JavaScript. These technologies are utilized by the platform for its user interface and interactive features.
- Basic Computer Literacy: Users are assumed to possess basic computer literacy skills, including familiarity with web browsing, form filling, and understanding common user interface elements. This level of proficiency is necessary for users to navigate the platform, create event posts, join activities, and interact with other participants effectively.
- AWS Service Availability: The platform's reliance on AWS services, such as AWS Cognito for authentication and AWS S3 for data storage, assumes that these services are available and functioning properly. The platform's requirements are aligned with the assumption that these AWS services can be utilized seamlessly.
- Legal Compliance: The platform assumes that users will comply with applicable laws and regulations related to content creation, sharing, and participation in activities. Users are expected to adhere to community guidelines and standards when creating event posts and engaging with others on the platform.
- Language and Localization: The platform assumes that users have a working proficiency in the language(s) supported by the platform. The user interface and communication within the platform are designed with the assumption of a specific language or set of languages.
- User-generated Content Ownership: The platform assumes that users hold the rights and permissions to the content they create and share on the platform. It is expected that users will not violate any copyright or intellectual property rights when sharing multimedia content.

2.4 Constraints

- The receptionist of the polyclinic and every doctor of the polyclinic should have a personal computer available during the work hours in order to be able to access this web application.

- The receptionist of the polyclinic as well as every doctor of the polyclinic should know how to use this web application. They should know their capabilities and their duties in order not to interfere with each other and to respect the privacy of their patients. Using this application efficiently and correctly will increase the performance of it.
- The project is constrained also by the Internet connection. Since it is supposed to be a web application, it is crucial that there is stable Internet connection for the application to function. The internet is needed mainly because the data should be fetched from the database over the Internet. It is also needed for the reCaptcha module and Google Map. If the patient wants to contact the doctor through the application, in order for that email to be sent the Internet connection should be available.
- In order for Google Map to be available at any time, the Google Satellite should be available all the time too.

2.5 Dependencies

- User Input and Participation: Active user engagement is crucial for the platform's success, requiring users to create posts, join activities, and contribute to discussions.
- User-generated Content Quality: Maintaining high-quality and relevant user-generated content may require implementing moderation tools and guidelines.
- Community Building: The platform should include features that facilitate community building, social interactions, and networking capabilities.
- User Feedback and Iterative Development: Incorporating user feedback and continuously improving the platform based on user input is essential.
- Privacy and Data Protection: Requirements must address user privacy concerns and comply with data protection regulations.
- User Education and Support: Providing user documentation, tutorials, and support channels helps users effectively utilize the platform.
- Collaborative Partnerships: Partnerships with event organizers and activity providers may be required to expand the platform's offerings.
- Scalability and Performance: The platform should be designed to handle increased user loads without compromising performance.
- User Trust and Safety: Implementing mechanisms to verify organizers, promoting transparency, and addressing abusive behavior is crucial.

- User Experience (UX): Prioritizing a seamless and intuitive user experience through responsive design and efficient functionalities.

3. Requirements

3.1 Functional Requirements

Req#	Requirement	Comments	Priority	Date	Reviewed/ Approved
FR_01	<i>Users should be able to create an account and register on the platform using their email address</i>	<i>Enables easy on boarding and expands user base</i>	1	28/03/2023	<i>Redi Ceni / Daniel Abdiaj</i>
FR_02	<i>A authentication code will be send to the users for email confirmation</i>	<i>After registering their email the users will need to add the authentication code emailed to them for a proper user authentication and email security</i>	1	28/03/2023	<i>Enris Kumi/ Faik Koprenca</i>
FR_03	<i>The authentication process should ensure the privacy and security of user information</i>	<i>Maintains user privacy and protects sensitive data</i>	1	28/03/2023	<i>Faik Koprenca/ Ervin Shyti</i>
FR_04	<i>The user accounts have to be secured by passwords.</i>	<i>The passwords will be saved in a secure database and the developing team automatically does not have access to them</i>	1	28/03/2023	<i>Fjoralb Tashi/ Redi Ceni</i>

<i>FR_05</i>	<i>Users should be able to log in to the web app using their registered credentials securely</i>	<i>Ensures secure access to user accounts</i>	1	28/03/2023	<i>Enris Kumi/ Ervin Shyti</i>
<i>FR_06</i>	<i>Users should have a profile page where they can view and edit their personal information, including profile picture, bio, and contact details.</i>	<i>Allows users to personalize their profiles and provide relevant information</i>	2	21/03/2023	<i>Daniel Abdiaj/ Enris Kumi</i>
<i>FR_07</i>	<i>The users should be able to delete their accounts</i>	<i>The users themselves are the only ones responsible for deleting their accounts</i>	2	03/04/2023	<i>Redi Ceni/ Faik Koprenca</i>
<i>FR_08</i>	<i>Users should be able to view and manage their posts and events from their profile</i>	<i>Provides easy access to user-generated content</i>	3	21/03/2023	<i>Daniel Abdiaj/ Enris Kumi</i>
<i>FR_09</i>	<i>Users should have the option to customize their profile settings, such as privacy settings and notification preferences</i>	<i>Gives users control over their privacy and notification preferences</i>	2	03/04/2023	<i>Faik Koprenca/ Redi Ceni</i>
<i>FR_10</i>	<i>Users should be able to create new events/posts by providing relevant details such as date, time, location, and the number of participants required</i>	<i>Empowers users to organize event that are in line with their hobbies and share their information with the other users</i>	1	21/03/2023	<i>Enris Kumi/ Fjoralb Tashi</i>

<i>FR_11</i>	<i>Users should be able to upload photos related to the event and add captions to them</i>	<i>Enhances event visibility and engagement</i>	2	03/04/2023	<i>Daniel Abdiaj/ Ervin Shyti</i>
<i>FR_12</i>	<i>Users should have the ability to select predefined event categories or create new ones for tagging their events</i>	<i>Facilitates event categorization and easy search ability</i>	2	02/05/2023	<i>Redi Ceni/ Enris Kumi</i>
<i>FR_13</i>	<i>Users should be able to edit or delete their own events</i>	<i>Allows users to manage their event information effectively</i>	2	21/03/2023	<i>Faik Koprenca/ Ervin Shyti</i>
<i>FR_14</i>	<i>Users should be able to view and manage the events they have joined or expressed interest in attending</i>	<i>Helps users keep track of their event engagements</i>	2	18/04/2023	<i>Enris Kumi / Ervin Shyti</i>
<i>FR_15</i>	<i>When joining an event the users should be able to join a chat room for a better event organization</i>	<i>Help users in knowing the other interested participants beforehand and in helping in the event organization</i>	2	16/05/2023	<i>Daniel Abdiaj/ Faik Koprenca</i>
<i>FR_16</i>	<i>Users should be able to browse events based on various criteria, such as event category, location and date</i>	<i>Enables users to discover events aligned with their interests</i>	2	18/04/2023	<i>Daniel Abdiaj/ Redi Ceni</i>

<i>FR_17</i>	<i>Users should be able to search for specific events using keywords, filters, or predefined tags</i>	<i>Facilitates targeted event discovery</i>	2	18/04/2023	<i>Redi Ceni/ Enris Kumi</i>
<i>FR_18</i>	<i>Users should be able to search for posts/events by username and post title</i>	<i>Allows users to find specific posts/events easily</i>	2	02/05/2023	<i>Fjoralb Tashi/ Ervin Shyti</i>
<i>FR_19</i>	<i>Users should be able to view detailed event information, including event description, photos, location map, date, time, and the number of participants required</i>	<i>Provides comprehensive event details for informed decision-making</i>	1	21/03/2023	<i>Redi Ceni/ Faik Koprenca</i>
<i>FR_20</i>	<i>Users should have the option to like, comment on, and share events with others</i>	<i>Promotes user engagement and event visibility</i>	2	02/05/2023	<i>Daniel Abdiaj/ Enris Kumi</i>
<i>FR_21</i>	<i>Users should be able to follow or connect with other users to stay updated on their activities and events.</i>	<i>Fosters a sense of community and facilitates networking</i>	3	18/04/2023	<i>Faik Koprenca/ Enris Kumi</i>
<i>FR_22</i>	<i>Users should have the option to send private messages to other users for communication and coordination</i>	<i>Enables direct communication and event planning among users</i>	2	23/05/2023	<i>Enris Kumi/ Redi Ceni</i>

<i>FR_23</i>	<i>Once the date and time of an event/post have passed, the join option should become unavailable</i>	<i>Ensures that users cannot join or express interest in events that have already taken place, preventing confusion and maintaining the accuracy of event attendance information</i>	1	09/05/2023	<i>Redi Ceni/ Daniel Abdiaj</i>
<i>FR_24</i>	<i>When the required number of participants for an event has been reached, the join option should become unavailable</i>	<i>Prevents additional users from joining the event once the required participation threshold has been met, ensuring that event organizers can manage event logistics effectively and avoid overcrowding</i>	1	09/05/2023	<i>Enris Kumi/ Ervin Shyti</i>
<i>FR_25</i>	<i>Users should be able to securely log out of their accounts</i>	<i>Ensures account security</i>	1	28/03/2023	<i>Faik Koprenca/ Daniel Abdiaj</i>
<i>FR_26</i>	<i>Logging out should redirect users to a designated logout or login page</i>	<i>Maintains user experience flow</i>	2	28/03/2023	<i>Redi Ceni/ Fjoralf Tashi</i>
<i>FR_27</i>	<i>User logout should clear locally stored session data or tokens</i>	<i>Enhances security measures</i>	1	28/03/2023	<i>Daniel Abdiaj/ Enris Kumi</i>

Table 1. Functional Requirements

3.2 Non-Functional Requirements

3.2.1 Product Requirements

3.2.1.1 Performance Requirements

- Performance: The platform should deliver fast and responsive behavior, enabling users to quickly browse event posts, join activities, and participate in chats.

- Reliability: The platform must operate consistently and minimize system failures, ensuring uninterrupted access to event posts, join buttons, and chat spaces.
- Scalability: The platform should scale seamlessly to accommodate a growing user base and increasing event activities.
- Security: The platform must prioritize user data security, implementing secure communication and access control using AWS authentication services.
- Compatibility: The platform should be compatible with various devices, browsers, and operating systems, ensuring a consistent user experience.
- Interoperability: The platform should integrate with external systems and services using AWS APIs, such as mapping APIs for event locations or messaging APIs for chat functionality.
- Error Handling and Reporting: The platform should handle errors gracefully and provide meaningful error messages, with logging and reporting capabilities for troubleshooting.
- Data Backup and Recovery: The platform should implement regular data backups and a reliable recovery process using AWS storage services to prevent data loss.
- Compliance and Regulations: The platform must comply with data protection and privacy regulations, with AWS services assisting in ensuring secure data handling and user consent management.

By meeting these requirements and leveraging AWS services for authentication, data storage, and compliance, the social media platform can provide a good performance, secure, and scalable solution for users to post events, join activities, and engage in chat spaces.

3.2.1.2 User Interface Requirements

The user interface for the web applications should be compatible to any browser in order for the user to access it from Desktop or Mobile.

In addition to functions required, we are going to describe the characteristics of each interface which are supported from the sketches attached at the Adobe XD.

- Event Creation Interface: This interface allows users to create event-based posts by providing relevant details such as activity type, location, date, time, and description. The user interacts with a user-friendly and intuitive UI to input and format the event information, including adding images or multimedia if supported.
- Joining Interface: Users can join activities by clicking on a "Join" button associated with each event post. The interface should clearly display the join option and provide a seamless user experience, confirming the user's participation in the chosen activity.

- Chat Interface: Upon joining an activity, users gain access to a chat space where they can interact with other participants. The chat interface should facilitate real-time messaging, displaying messages in an organized and readable format. Users can send messages, view previous conversations, and potentially utilize features like emoji reactions or file sharing.
- User Profile Interface: Users have their profile pages, accessible through a user-friendly UI. The profile interface enables users to view and update their personal information, manage privacy settings, and customize their profile display. It may include options to upload a profile picture, provide a bio, or share links to external social media profiles.
- Event Feed Interface: The main feed interface presents a stream of event-based posts, allowing users to scroll through and explore different activities. The UI should showcase event titles, summaries, and relevant information in a visually appealing and easily scannable manner. Users can interact with the posts by liking, commenting, or saving them for future reference.
- Notifications Interface: The platform may include a notifications interface to inform users about relevant updates, such as new event posts, activity updates, or chat notifications. The UI should provide clear and unobtrusive notifications, allowing users to easily access and manage them.
- Search and Filtering Interface: The platform should provide search and filtering functionalities, enabling users to discover specific activities based on criteria like location, date, activity type, or user preferences. The UI should offer intuitive search fields, dropdown menus, and checkboxes for filtering options, providing a seamless search experience.
- Settings Interface: Users can access their account settings through a dedicated interface. The UI should offer options to manage account preferences, privacy settings, notification preferences, and other configurable features.
- Login Interface: The login interface enables users to securely access their accounts. Users enter their credentials, such as username/email and password, through a user-friendly UI. The interface should provide clear input fields, password masking for security, and options for password recovery or account creation for new users.
- Logout Interface: The logout interface allows users to securely log out of their accounts. Users can access the logout option from a user-friendly UI, typically located within the user profile or account settings. Upon clicking the logout option, the user's session is terminated, and they are redirected to the login page or a designated landing page.

3.2.1.3 Learnability

1. Learnability: The system is easy to learn and navigate.
 - Comprehensive user documentation and context-sensitive help explain common tasks.

- The user interface is intuitive and user-friendly.
2. Efficiency: The system promotes efficient user interactions.
- Clear and consistent navigation enables easy movement between features.
 - Frequently used actions are readily accessible within the UI.
 - Workflows are streamlined to minimize unnecessary steps.
 - Error messages provide clear guidance for issue resolution.
 - Confirmation messages and feedback inform users of action success and next steps.
 - Visual indicators keep users informed of task progress.

These usability requirements prioritize ease of learning, efficient usage, and clear messaging to enhance the overall user experience and user satisfaction.

3.2.1.4 Accessibility

- Each user is provided with his/her username and password at the time they are registered at the system.
- The user than can access the system.
- The registered users can access the system at any time and at any place.

3.2.1.5 Efficiency

- Easy Event Creation: Users can quickly create event posts with relevant details, making it effortless to organize activities aligned with their hobbies.
- Seamless Joining: Users can join activities with a single click, eliminating unnecessary steps and simplifying the process. This ensures a smooth and efficient experience for users to express their interest and participation.
- Convenient Chat Integration: The app integrates chat spaces where participants can interact and coordinate in real-time. This facilitates efficient communication and collaboration among users, enhancing engagement and fostering connections.
- Time Management: The app includes specific time information in event posts, enabling users to plan their schedules effectively. This ensures users are aware of when and where to meet for the activity, optimizing their time and participation.

3.2.1.6 Memorability

- The system is intuitive hence, it is not a problem if you ‘vaguely remember’ how to use it.
- If the users return to the design after a period of not using it, they will be able to re-establish proficiency very quickly.
- The user interfaces are designed to be easy understandable by the users.

3.2.1.7 Errors

The error rate is lower than the current error rate.

- Each time sensitive data is entered in the system double check procedure is applied where the user confirms the entered data.
- If an error occurs it can be edited and corrected immediately.

3.2.1.8 Satisfaction

- The system is user-friendly and it is very easy to use.

3.2.1.9 Capacity

The program caters to a diverse range of users, including event organizers, activity participants, social connectors, and adventure seekers. It offers a versatile and inclusive platform for individuals with different interests, providing them with opportunities to organize and join various activities, connect with like-minded people, and explore new outdoor experiences.

Every user will use the same database, that is a non-relationship database, hosted on web, the same as the backend and the frontend of the application, so a large number of users and requests at the same time will cause no problems, further more if the users' numbers and the capacity needed for the whole application increases, it can very easily be scaled up or down as needed.

3.2.2 Organizational Requirements

3.2.2.1 Availability

- 1) Hours of Operation:
 - The application will be available 24/7, allowing users to access and interact with it at any time.

2) Level of Availability:

- The application should achieve a minimum of 99.9% uptime on the AWS cloud platform, measured on a monthly basis.
- Downtime should be limited to a maximum of 0.1% of the total operational hours in a given month.

3) Coverage for Geographic Areas:

- The application should be accessible to users globally, ensuring that individuals from various regions can join and participate in activities.

4) Impact of Downtime:

- Downtime should have minimal impact on users and their ability to organize or join activities.
- AWS's robust infrastructure and failover mechanisms should be leveraged to minimize service interruptions and ensure data integrity.

5) Impact of Scheduled and Unscheduled Maintenance:

- Scheduled maintenance should be carefully planned during off-peak hours to minimize disruption to users.
- Communication procedures should be established to inform users in advance about maintenance activities, expected downtime duration, and updates on progress.

6) Reliability:

- The application should demonstrate high reliability on the AWS cloud platform, with a focus on minimizing failures and maximizing Mean Time Between Failures (MTBF).
- Continuous monitoring, maintenance, and improvement efforts should be undertaken to ensure the stability and reliability of the application.

By incorporating these specific and measurable requirements into our application's development and deployment on the AWS cloud platform, we can ensure that our hobbies social media platform operates seamlessly, provides a reliable user experience, and minimizes any disruptions or negative impacts on users' ability to engage in activities and connect with others.

3.2.2.2 Latency

The latency of the web application will depend on:

- Internet connection strength.
- The efficiency of the algorithms used to fetch data from the database.

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3.2.2.3 Monitoring

We have chosen AWS CloudWatch for monitoring our application. It collects and tracks metrics, logs, and events, providing real-time insights into performance and health. With customizable dashboards and automated alerts, we can proactively monitor and troubleshoot issues, ensuring optimal operation and a seamless user experience.

3.2.2.4 Maintenance

- The system will be developed using cloud technologies, specifically AWS. Therefore, this platform will be used to maintain the application.
- The application will be developed in modules so it can be easily extended. New modules can be easily added to the application anytime.
- In case of any software update or bug correction, the users will be informed.

3.2.2.5 Operations

Some of the operations that will be provided to the users are:

- 1) User Registration and Login: Users can easily sign up for an account by registering with their email or social media accounts. Once registered, they can securely log in to access the application's features and personalize their profile.
- 2) Event Creation: Users can create event posts, providing details about the activity they are organizing. This includes specifying the type of activity, location, and time.
- 3) Joining Activities: Users can browse through event posts created by others and join activities of interest with a simple click. This expresses their intention to participate and become part of the activity.
- 4) Chat Spaces: For each joined activity, users have the option to enter dedicated chat spaces. These spaces facilitate real-time communication and coordination among participants, ensuring seamless interaction.
- 5) Scheduled Activity Participation: The application includes a time and date for each activity, allowing users to plan their schedules accordingly. Users are expected to meet and actively participate in the specific outdoor activity they have joined at the designated time and location.

Throughout the process, the application prioritizes availability and reliability. Leveraging the power of AWS cloud services, it aims to deliver uninterrupted access and robust performance, ensuring a

seamless experience for users to connect, organize, and participate in various activities aligned with their hobbies and interests.

3.2.2.6 Standards Compliance

Data Privacy: The application complies with data privacy regulations like GDPR, ensuring secure handling of user data.

User Authentication: Industry-standard authentication protocols are implemented for secure login and user identification.

Web Standards and Accessibility: The application adheres to web standards and accessibility guidelines for compatibility and inclusivity.

API Standards: APIs follow widely accepted standards like REST or GraphQL for consistent communication.

Security Standards: Best practices are followed, including encryption, secure transmission, and protection against vulnerabilities.

Social Media Guidelines: Compliance with social media platform guidelines is maintained for integration and API usage.

3.2.2.7 Portability

- The system will be web-based; therefore, it will operate the same regardless of the operating system.
- All you need is a computer or mobile phone and an Internet connection.

3.2.3 External Requirements

3.2.3.1 Security

The information kept in the system's database is considered to be sensitive information. Therefore, we should make sure that the security of our system is high. According to the law No.9887, dated 10.03.2008, as amended with law No.48/2012, "On the Protection of Personal Data", the personal information of each user should be private and possible to be accessed only by the specified actors. Therefore, this information is secured with hashed passwords.

3.2.3.2 Protection

To protect the system from malicious or accidental access, modification, disclosure, destruction, or misuse we will take the following precautions:

- Encrypt the most sensitive information such as passwords using hashing method to protect privacy.
- We will keep track of the activity of each user, such that in case of a problem the user will be held responsible.
- The receptionist is responsible for the personal data authenticity of the user he/she enters; hence the system is not responsible.
- The system will validate each data for special characters and other specific conditions before inserting or updating in the database.

3.2.3.3 Authorization and Authentication

The application leverages AWS Amplify and Amazon Cognito to implement robust authorization and authentication capabilities. These services provide secure user management and access control, ensuring the privacy and protection of user accounts and data.

- User Registration and Login: With Amazon Cognito, users can easily register for an account using email or social media credentials. The authentication process verifies user identities, protecting against unauthorized access.
- Identity Management: Amazon Cognito manages user identities, including user pools and identity pools, to securely store and authenticate user information. This ensures proper user authorization for accessing application resources.
- User Authentication: AWS Amplify simplifies the integration of authentication mechanisms, allowing users to securely log in using various authentication methods like email, password, or social media login providers.
- Access Control: Using AWS Identity and Access Management (IAM) policies and Amazon Cognito user roles, the application can define fine-grained access controls, restricting certain functionalities or resources based on user roles and permissions.
- Multi-Factor Authentication (MFA): Amazon Cognito supports MFA, providing an additional layer of security for user accounts. Users can enable MFA to authenticate themselves using a second factor, such as SMS, email, or authenticator apps.

By leveraging AWS Amplify and Amazon Cognito, our application ensures secure user authentication, identity management, and access control, safeguarding user accounts and providing a trusted and reliable authentication experience.

3.3 Domain Requirements

- Domain Registration: The application's domain has been registered using AWS Route 53, ensuring a unique and recognizable web address.
- DNS Management: The DNS settings have been configured and are being managed effectively. Domain name resolution and DNS records are properly maintained.
- SSL Certificate: An SSL certificate has been obtained and installed, enabling secure HTTPS communication between the application and its users. This ensures the encryption of data transmitted for enhanced security.
- Subdomains: The application utilizes subdomains to effectively organize and structure different sections or services, providing a seamless navigation experience for users.
- Domain Alias: Domain aliases have been set up to redirect alternate domain names to the main application domain. This ensures consistent access and prevents confusion among users.

With these domain requirements successfully implemented using AWS Route 53 and associated technologies, our application provides a secure and user-friendly online presence with a registered domain, efficient DNS management, and organized subdomains for optimal functionality.

4. Software Design / Diagrams

4.1 Requirements Analysis

4.1.1 User Scenarios

4.1.1.1 User Scenarios List

Nr	Name	Description
US_01	User logs in	Users log in using username and password

US_02	Change password	Users change their password
US_03	User signs up	When using the application for the first time the users firstly need to signup
US_04	View Profile	Users can view their profile
US_05	Update User	The users can update their profile
US_06	Post events	Users can make posts (events)
US_07	Update events	Users can update their posts
US_08	Search Users/Posts	Users can search other users and posts
US_09	Search by tags	Users can search by tags
US_10	Users join an event	Users can join different type of events
US_11	Chat creation	Every post will have a chat room created with its creation
US_12	Chatting	Users joined in the same event can chat with each other
US_13	Comment on posts	Users can comment in different posts
US_14	Like a post	Users can like different posts
US_15	Follow users	Users can follow other users
US_16	User logs out	Users log out from their accounts

Table 2. User scenarios list

4.1.1.2 User Scenarios Extended

1. **US_01** – User logs in
 - a. User is presented to the log in page

- b. User enters his username and password
- c. User presses the log in button
- d. AWS amplify makes sure that the login data is correct
- e. If data is correct the user is redirected to the main page
- f. If data is not correct an error message will be shown and user repeats the process from step b.

2. **US_02 – Change password**

- a. User logs in following the steps in **US_01**.
- b. User chooses the menu “Change Password” in their profile settings
- c. User types his old password and his new password (2 times)
- d. User presses the button “Save Changes”
- e. If the old password is correct and if the new password is the same in both fields the user is alerted: “Password was changed successfully!”
- f. In case the old password is wrong or the new password is not the same in both fields then user is alerted: “Password was not changed. Please try again.”

3. **US_03** User signs up

- a. Users presses the Signup option and is redirected at the signup page
- b. The users add an email, username and password
- c. After pressing signup, the users receive a code in their email
- d. In the signup page the users write the authentication code
- e. If the authentication code is not correct the user is asked to try again and receives an error
- f. After confirming the user’s data, the user is redirected to the login page

4. **US_04 – View Profile**

- a. User logs in following the steps in **US_01**

- b. Users can go to their profile
- c. There they can see their post and any data, like bio, profile picture, followers, the users following and also the users can see the posts (event) they have joined
- d. Viewing the joined posts section is only available when the users are in their own profile

5. **US_05 – Update User**

- a. Users log in following the steps in **US_01**
- b. In their profile page the users have an edit profile option
- c. When pressing the edit profile the users are introduced in a user friendly interface where they can edit the profile, being able to change the username, profile picture and the location (relevant when posting).
- d. Each of the field mentioned above have specific requirements that when not meet, are presented as errors to the user, with instructions on how can be filled correctly
- e. As part of the profile edit the users can remove followers for any personal reason

6. **US_06** Post events
 - a. Users log in following the steps in **US_01**
 - b. In the main page, in the bottom right corner the user is presented with a circular button with a “+” symbol
 - c. When pressed the users are presented with the Post interface
 - d. Here the user has a few fields, some mandatory and some not
 - e. The users add a title for the post, supposedly short and summarizing the kind of event they are organizing and to give a more detailed explanation for the event on question they can expand their idea, the organization and everything the users want to include in the bio section. The user has the option to include a picture in their post. Very important for completing a post is the number of users needed to join the event (or any other activity) and the time for which the user is presented with a friendly and different looking interface
 - f. The users can also add tags in their posts, the tags are predefined and include all the cities of Albania and a very large category of sports and other activities, the users can also create new tags that need to be in accordance to the safety of all the other users. This part is not mandatory since the users can explain in more detail the location and the nature of the event if they do not feel properly represented by the tags
 - g. After filling these fields the users can use the post option to post their event
7. **US_07** – Update events
 - a. Users log in following the steps in **US_01**
 - b. Users post following the steps in **US_07**
 - c. By clicking the edit button the users are presented with the post edit interface where they can change the different parts of the post
 - d. After finishing the edit process by pushing the edit button the post is edited and if there are any errors they are shown to the users with instructions on how to properly fix them and in the case of errors the post is not updated.
8. **US_08** – Search Users/Posts
 - a. Users log in following the steps in **US_01**

- b. On the top of the application is a search bar where users can search for different users or post titles, the possible search results are shown as the user's type, for the users searched their username is needed meanwhile for the post the title is needed
9. **US_09 – Search by tags**
- a. Users log in following the steps in **US_01**
 - b. Underneath the search in **US_08** the users can search by tags alone
 - c. This kind of search is when the users want to explore different type of event, here they can choose a city tag, an event tag or a combination of both
10. **US_10 Users join an event**
- a. Users log in following the steps in **US_01**
 - b. In the main page the users can see all post from the other users and if one of these events interests the user they can press the join button in this post
 - c. By pressing this button, the users agree and express desire to be part of a specific event, this action increases the joined user's section in the post which will allow only a specific number of users to join as specified by the user who has made the post
 - d. After pressing the join button and essentially being part of this event another button appears to the users (only after joining), that is the chat button.
11. **US_11 – Chat creation**
- a. After creating a post following the steps in **US_06**
 - b. After an event is posted, for this event a chat room will be created with firstly only the creator as a member and then with other users once they join
12. **US_12 – Chatting**
- a. User joins a post following the steps in **US_10**
 - b. After the appearance of the chat room the users by pressing its button join the chat room, here they can chat for specifics of the event or to know the other users

13. **US_13 – Comment on posts**

- a. Users log in following the steps in **US_01**
- b. In the main menu, users can see the different post and at the bottom of the post the user can add a comment
- c. Here the users type and after finishing the comment is posted by pressing the comment button
- d. In the post after commenting the option changes from ‘Comment’ if there are no comments to ‘View Comments’, that when pressed the users can see all comments and again have the option to comment themselves.

14. **US_14 – Like a post**

- a. Users log in following the steps in **US_01**
- b. Users can like different by pressing a heart shaped icon in the bottom of the post
- c. This is used as a way of showing appreciation or just supporting different events
- d. Another use case is that after the event is finished the users that has made the post can update it with pictures from the event day, and here different users can like

15. **US_15 – Follow users**

- a. Users can search another user following the steps in **US_08**
- b. By visiting other users’ profile, the users can notice a follow button
- c. BY pressing this button, the users start following different users.

16. **US_16 – User logs out**

- a. User logs in following the steps in **US_01**
- b. By visiting their profile, the user can find the log out button
- c. By pressing this button, the user is logged out and is redirected to the main page and bearer and jwt token are deleted.

4.1.2 User Cases

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Name	User logs in
Summary	User enters personal information to access his account.
Actor	Users
Description	User gains access on his account after typing his correct username and password.
Precondition	User must have an active before logging in.
Alternatives	The user can access only one account at a time.
Post Condition	User is logged on his account.

UC_01 – US_01 - User logs in

Name	Change password
Summary	User goes to the corresponding page to change his password.
Actor	Users
Description	User types the old password and the new one in order to make the change.
Precondition	The user should be logged in. The old password should be typed correctly and both fields with the new password should match. Also the new password should be different from the old one and it should follow the validation rules.
Alternatives	If the fields are not filled correctly (validation rules not passed successfully), then information cannot be saved. The user is allowed to try again.
Post Condition	After pressing the “Change Password” button, the old password is replaced with the new one.

UC_02 – US_02 - Change password

Name	User signs up
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Summary	The users register their accounts.
Actor	Users
Description	In the log in page users click on the register button, and here they create an account to use the application
Precondition	The users should use account that have not been registered before, the username should not be taken and the password must pass the validation.
Alternatives	After entering the data the users should tap the create account button that will send them an email and take them in a new interface where they in order to activate the said account should type the received code, if not done in a certain amount of time the account activation will not be done (the account is created and the data cannot be used in order to create another account, unless activated)
Post Condition	A new user is added on the database

UC_03 – User signs up

Name	View Profile
Summary	The user goes to their profile page.
Actor	Users
Description	After taping the profile page icon the user is taken at their profile page interface where they are presented with different options (explained in detail later) and also the user is presented with data available to the other users (a user can visit other users pages) but also to data only available to the users own profile, an example is the “joined post” section.

Precondition	To partake this action the user should have created an account and also they should be logged in. Users also should have internet access.
Alternatives	The alternative available is to tap the profile icon (or the profile page of other users, that can be found at the top of the post or searched), or not to tap this icon and in turn not visit the profile page interface.
Post Condition	The user views their profile, is taken at the profile page interface)

UC_04 – US_04 – View Profile

Name	Update User
Summary	The users update their data.
Actor	User
Description	By choosing the “update profile” button the user is transferred to the Update interface (also to note is the fact that this is a single page application, so the users are not transferred on different tabs or pages). Here the users can update data like bio, location, profile picture ...
Precondition	The user firstly should be logged in. Any data changes must pass the validation (should be in a predefined, certain format).
Alternatives	If the users are sure they should press Save changes to continue saving, if not then they should press cancel and go back to the profile page.

Post Condition	The user updates data shown in their profile page.
<i>UC_05 –US_05 – Update User</i>	

Name	Post events
Summary	The user will create a post like event open invitation.
Actor	Users
Description	<p>In the bottom right corner of the application the users can see a circular button with a plus “+” icon in the center and by pressing this button the users are introduced to the post interface.</p> <p>Here the users can create their post and have a variety of fields, some required some not. Firstly the users can add a title to their post, descriptions, photos, the required number of people to join and the time of the event. Not required but very highly recommended to be used are the location and the event type tags (each post has tags).</p> <p>This creation of post about certain activities is the main idea of this application, since we aim for users to find and join these events both virtually and in person, being well specified and described by the event creator is a very important step aimed at attracting the right users and persons with each other.</p>
Precondition	To access this service the users should be logged in.

Alternatives	After finishing filling the required fields and passing the validation for them the user can tap at the “post” button that will create the post for all the other users to see or press “cancel” that will discard this post creation.
Post Condition	The user will create a post.

UC_06 – US_06 – Post events

Name	Update events
Summary	The users update their posts.
Actor	Users (The user that created the post)
Description	The users can update the edits, they can edit all of the fields to their judgment and after passing the validation the post can be updated.
Precondition	To access this list you should be logged in.
Alternatives	The users can tap on the “save changes” button and update the post or they can press the “cancel” button to discharge the edits.
Post Condition	The users will edit their posts.

UC_07 – US_07 – Update events

Name	Search Users/Posts
Summary	Search a specific user or post.
Actor	Users

Description	<p>In the top of the application the users can see a search icon that when tapped will open a search space (the small icon will be turned in a field where data can be entered).</p> <p>Here the users can type the username or post titles and as they type data (a dropping list will be shown with the searched data).</p> <p>After finding the requested data the users can click the username or title searched and this will transvere them to the user profile or in the case of a post title to the post in the specific user profile.</p>
Precondition	You should be logged in.
Alternatives	Users can either type the name or the post tile. If there is data found, they are shown to the requesting user.
Post Condition	If results were found, a list with the specific users and posts with or very similar to the input data will be shown.

UC_08 – US_08 – Search Users/Posts

Name	Search by tags
Summary	Search for different tags available.
Actor	Users
Description	<p>In the main page there is a search field, a different and always shown in a full text field, unlike the “Search user/post section”.</p> <p>Here by either typing or by taping the list of tags presented the user can chose tags that describe the events types or the location, if posts are found with this specific tags they are shown to the users and</p>

	<p>they can browse and find events that are in line with their hobbies.</p> <p>The way this search unlike the previous one is build in this way is to encourage the users to primarily search for tags that would be of their interest, rather than users but also since a user can see a post they want to be part in a different time from the moment it was seen, in case they cant remember the title and search it directly, the users can also have this option the browse until they find the post in question and also stumble on other event that may be of interest to them, thus further integrating the user in the application.</p>
Precondition	You should be logged in.
Alternatives	Users can choose one or more tags. If there is data found, it will be shown.
Post Condition	If results were found, the requesting user will be transferred to a page with post matching the tags searched.

UC_09 – US_09 – Search by tags

Name	Users join an event
Summary	Users see a post that is interesting and want to become part, this is done by pressing the join button.
Actor	Users

Description	If the users either stumble or search for a specific event, they can be part by pressing the join button at the top right corner of the post. By pressing this button the users can see a change in the post interface where a new button is presented to them (described later). So the users become part of a certain event.
Precondition	You should be logged in.
Alternatives	If the receptionist is sure he/she should press YES to continue saving, if not then he/she should press NO and go back to the previous page. If when pressing YES, the validation of the fields is not successful, the receptionist is allowed to make the necessary changes.
Post Condition	Users becomes part of an event.

UC_10 – US_10 – Users join an event

Name	Chat creation
Summary	After the post creation a chat room is also created.
Actor	Users/Automatic
Description	After creating a post, a chat room is created for every single post. Since we encourage our users to not just simply go to an event “blindly”, we encourage them to get to know each other before and to also talk for more details regarding the event.
Precondition	The users should be logged in and create a post.

Alternatives	The users do not have alternatives for creating or not the chat rooms for each post since it is an essential part of the application.
Post Condition	A chat room is created for every post.

UC_11 – US_11 – Chat creation

Name	Chatting
Summary	Users can chat with each other.
Actor	Users
Description	<p>The users can chat with each other, this by navigating to the chat interface.</p> <p>The purpose of the chatting and chat rooms is for the users to get to know each other better and help in the event organization.</p>
Precondition	You should be logged in, created or joined a post and have navigated to the chatting interface
Alternatives	If the users are sure of the message they want to send they should press send, if not then they should press the delete option in their keyboards
Post Condition	The users chat with each other.

UC_12 – US_12 – Delete user

Name	Comment on posts
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Summary	Users comment on different posts.
Actor	Users
Description	The users can comment in different posts. This option is so the users can express an opinion, suggestion, appreciation or anything in a post. These comments will be shown in the ‘Comments’ section of the posts with the commenters username.
Precondition	You should be logged in.
Alternatives	If the users are sure of the message they want to comment they should press the “comment” button, if not then they should press the delete option in their keyboards.
Post Condition	A comment is created at a post.

UC_13 – US_13 – Comment on posts

Name	Like a post
Summary	The user likes a post.
Actor	Users
Description	The users can add likes to a post. This feature is common across social medias and the users can view it as a way for showing support and appreciation for a post.
Precondition	Doctor should be logged in and like the post.
Alternatives	If the receptionist has not allowed the doctor to make any visits, that list will be empty. An informative message will be shown.

Post Condition	The user likes a post.
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UC_14 – US_14 - Like a post

Name	Follow users
Summary	A user follows another user.
Actor	Users
Description	One user can follow other users and be followed by them. This will make the posts of the followed user to show more often. After pressing the follow button the interface of the followed user and of the following one will change, the “follow” button will be transformed to unfollow, and the following and followers fields will change to each profile page accordingly.
Precondition	The users should be logged in.
Alternatives	After pressing the “follow” button in the user profile, the logged in user starts following the user in question, if they do not want to follow them any longer they can press the “unfollow” button.
Post Condition	A user follows another user.

UC_15 – US_15 – Follow users

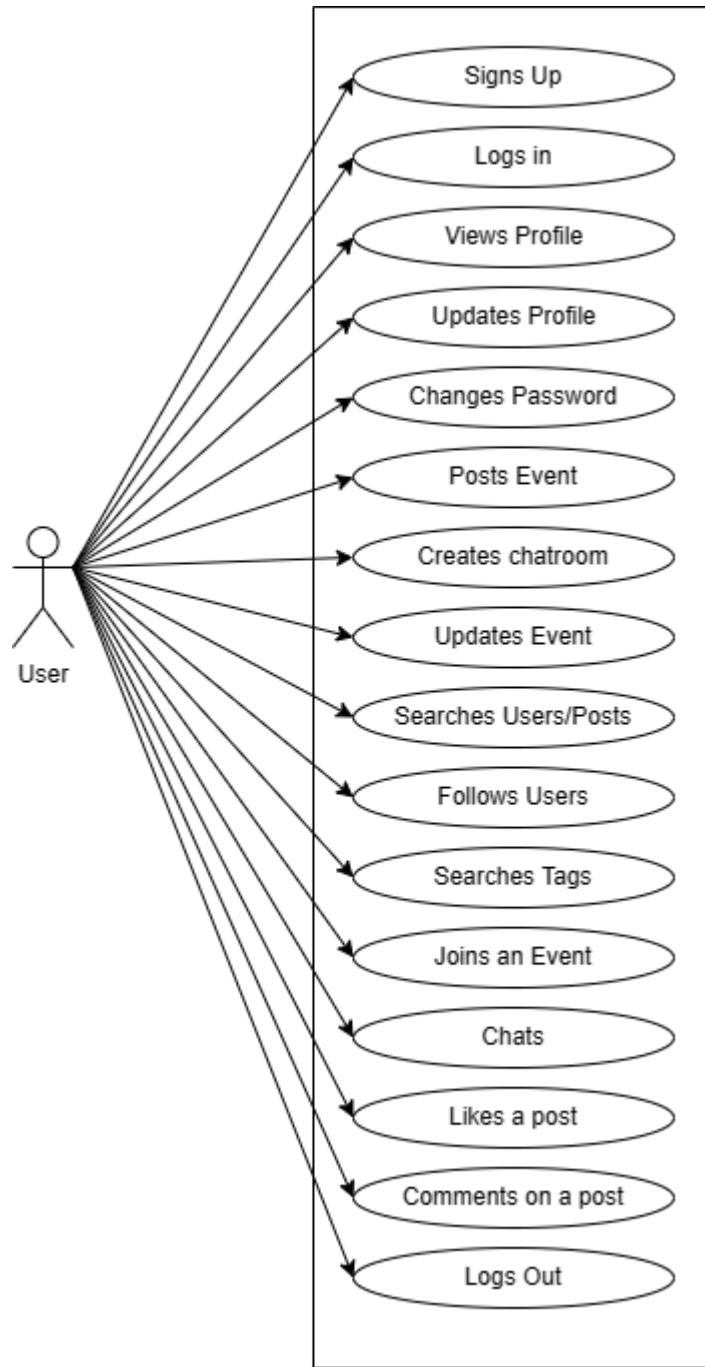
Name	User logs out
Summary	User has finished his/her activity.
Actor	Users

Description	First the user logs in. Then they interact with the application and when finished they click the “Log Out” button.
Precondition	The user must first be logged in.
Alternatives	The user can log out at any time.
Post Condition	The user has logged out and is no longer using his/her account.

UC_16 – US_16 – User logs out

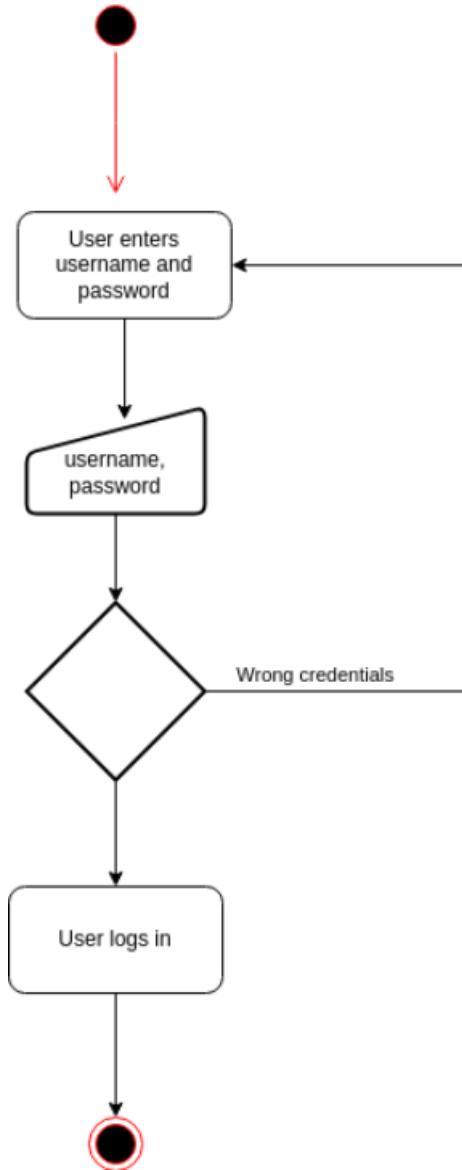
4.2 Behavioral Diagrams

4.2.1 Use Case Diagrams

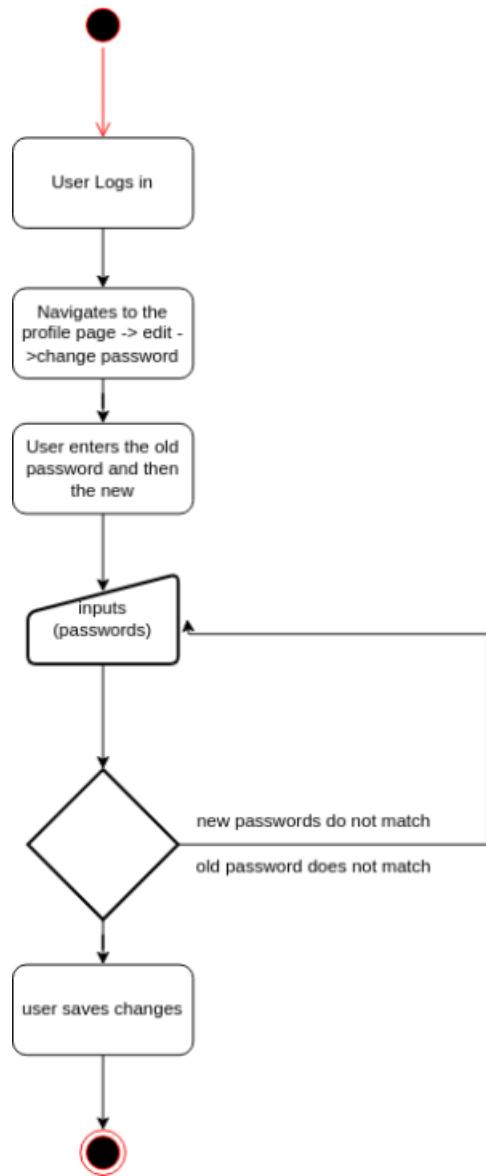


CD_01 – UC_01, UC_02, UC_17/a, UC_19, UC_23 – Basic Operations

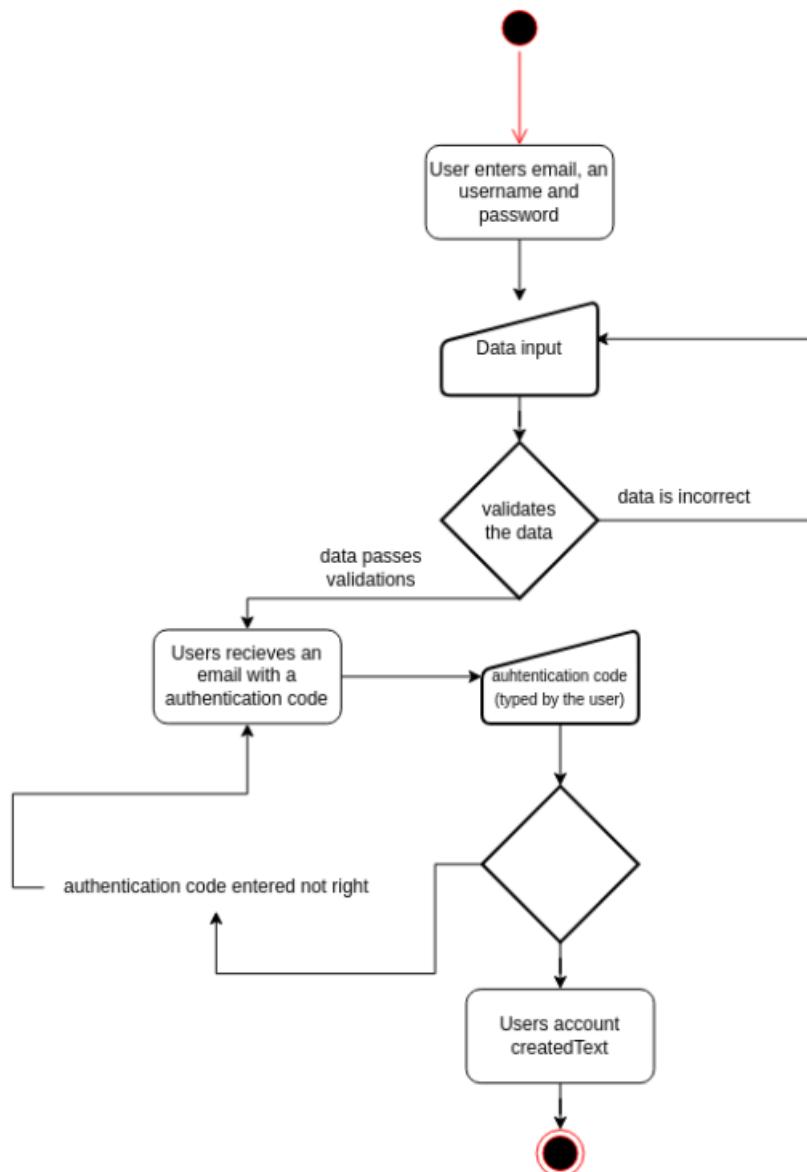
4.2.2 Activity Diagrams



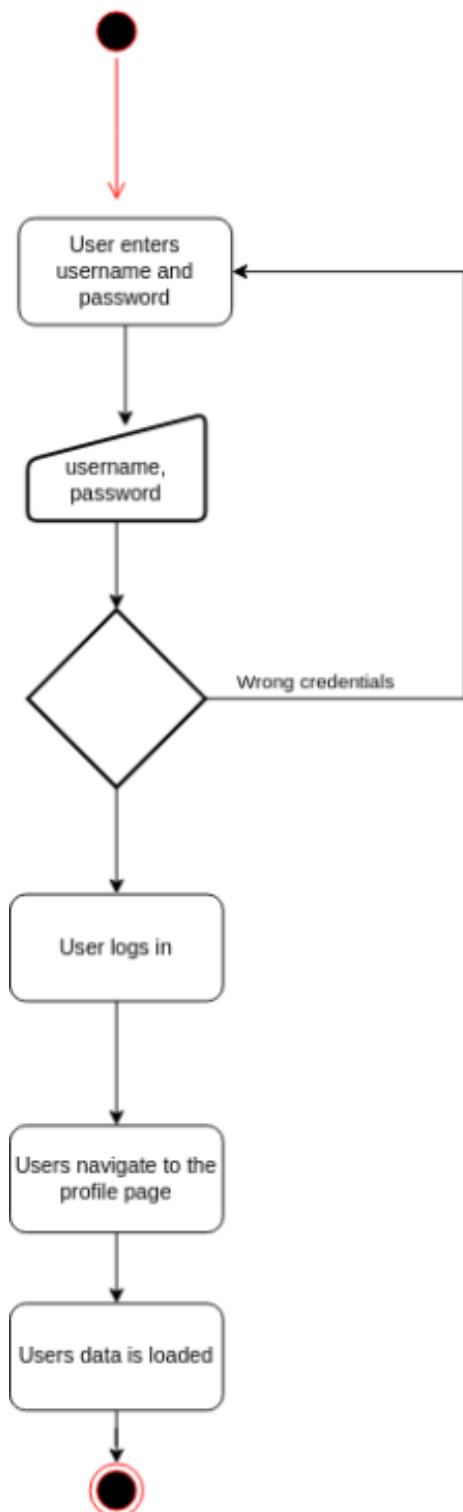
AD_01 – US_01 - User logs in

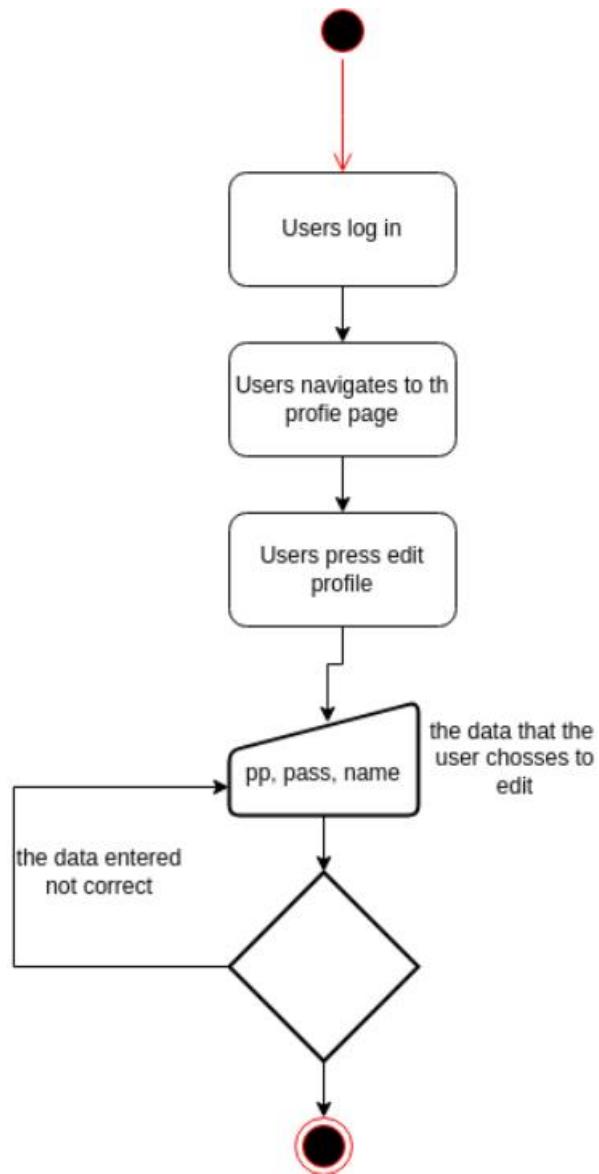


AD_02 – US_02 - Change password

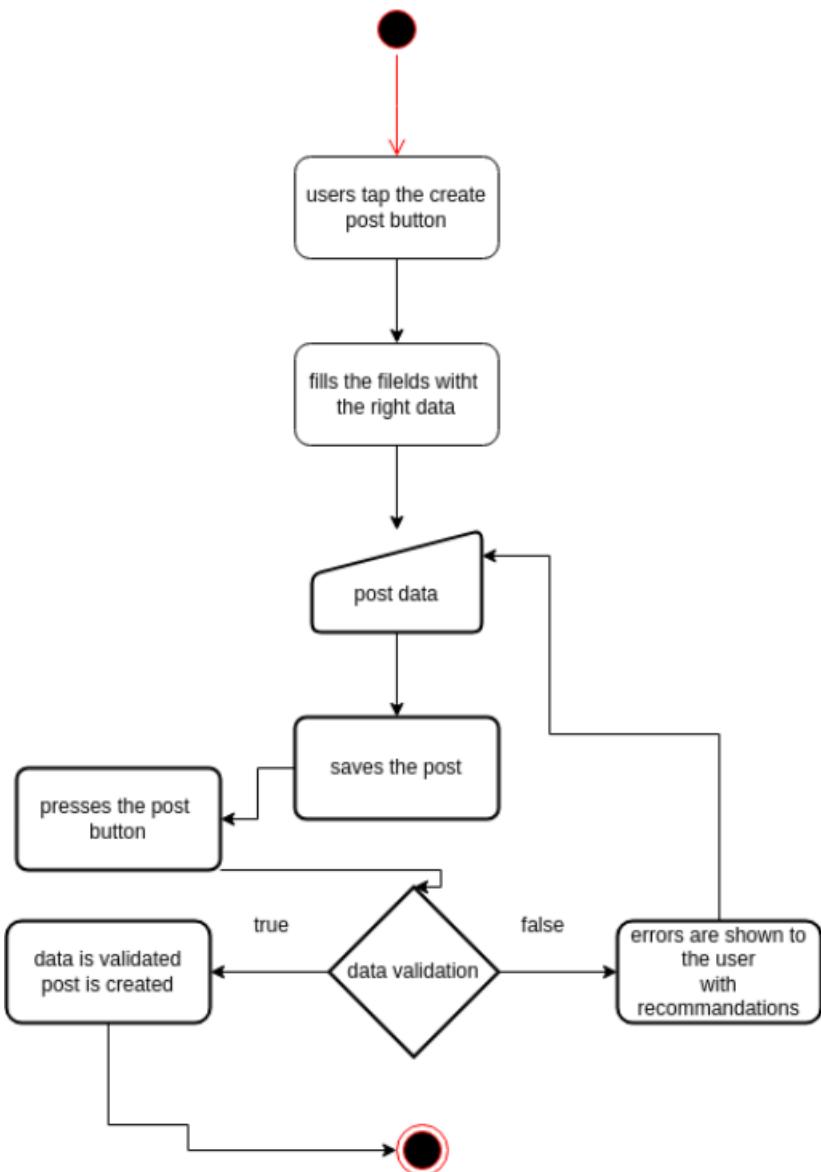


AD_03 – US_03 - User signs up

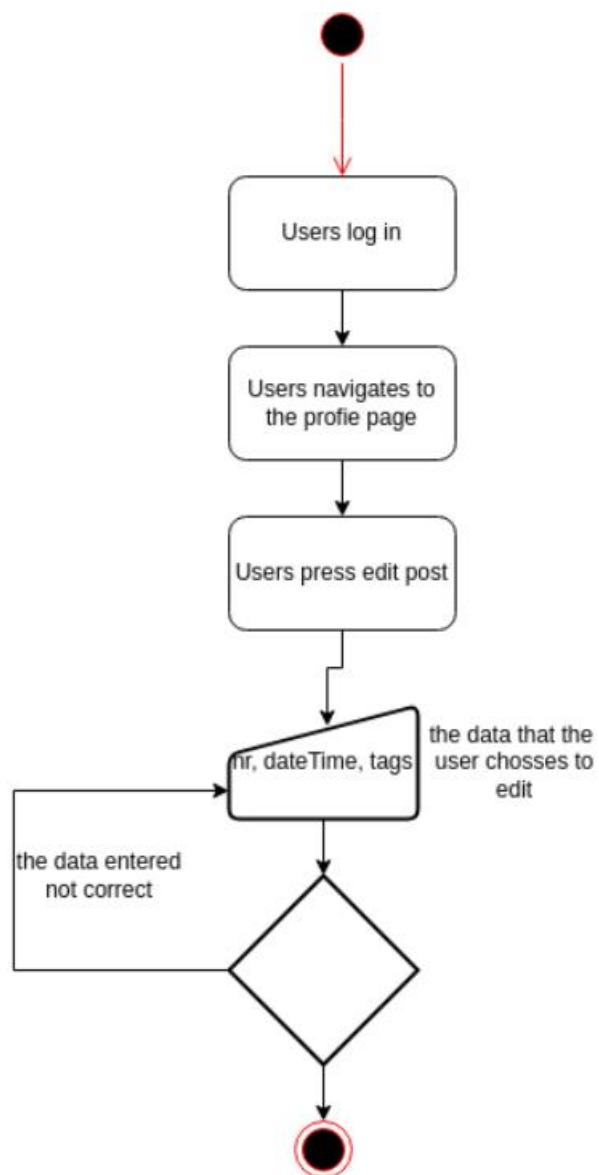




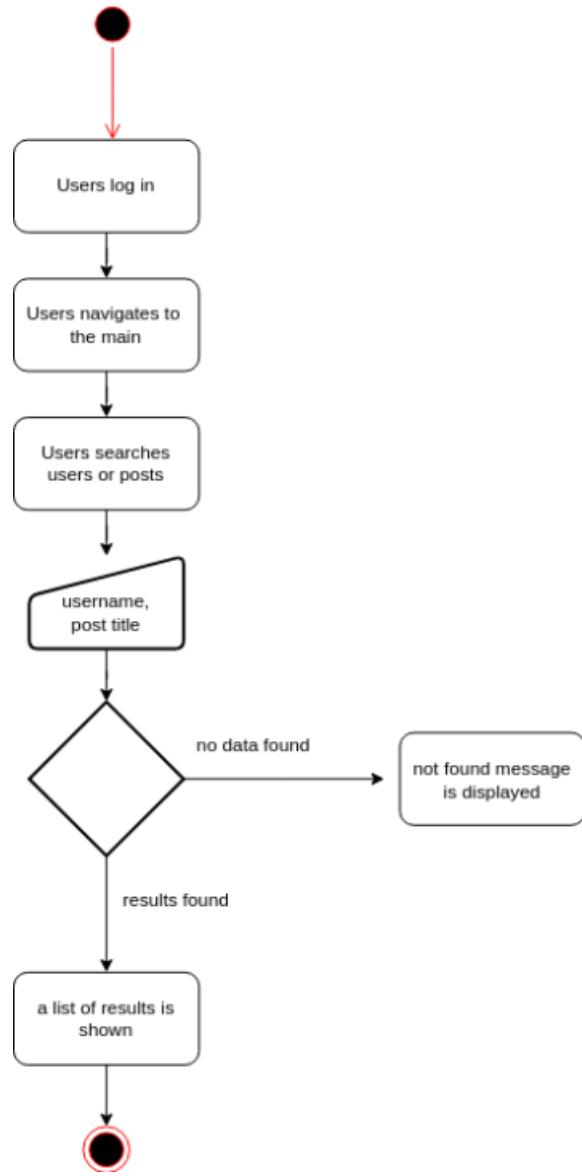
AD_05 – US_05 – Update User



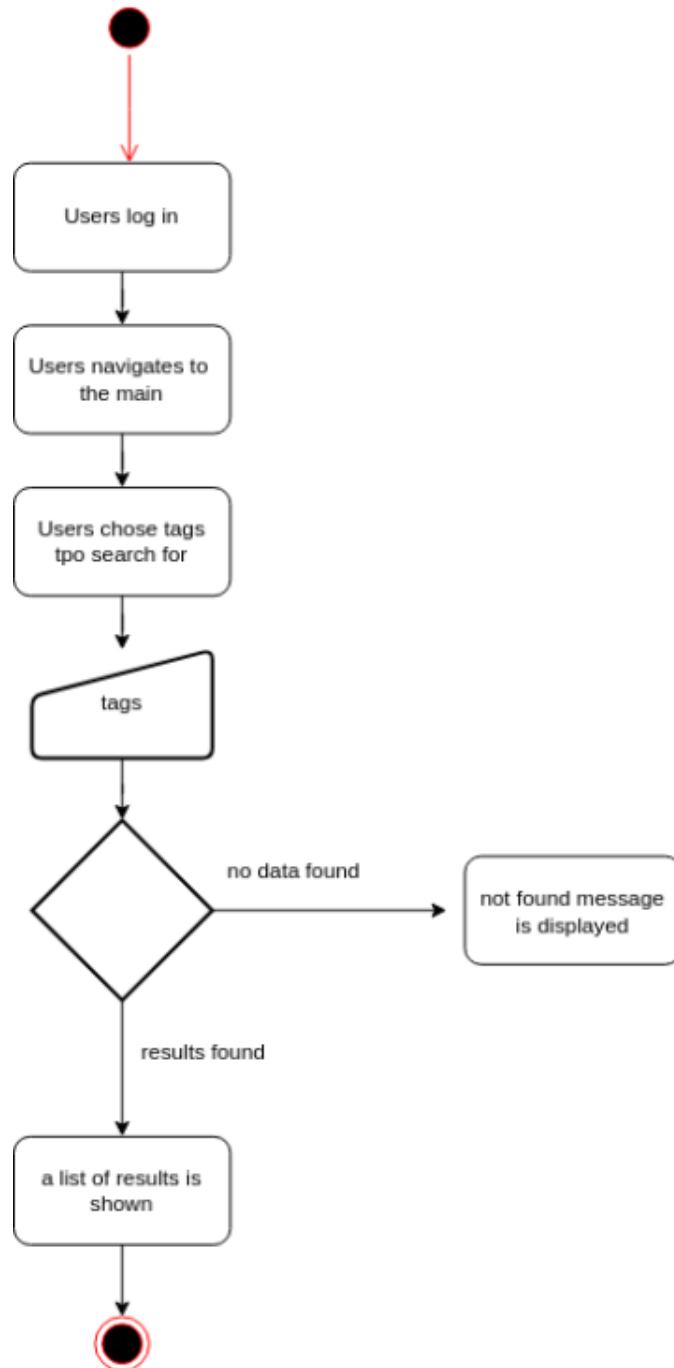
AD_06 – US_06 – Post Event



AD_07 – US_07 - Update event

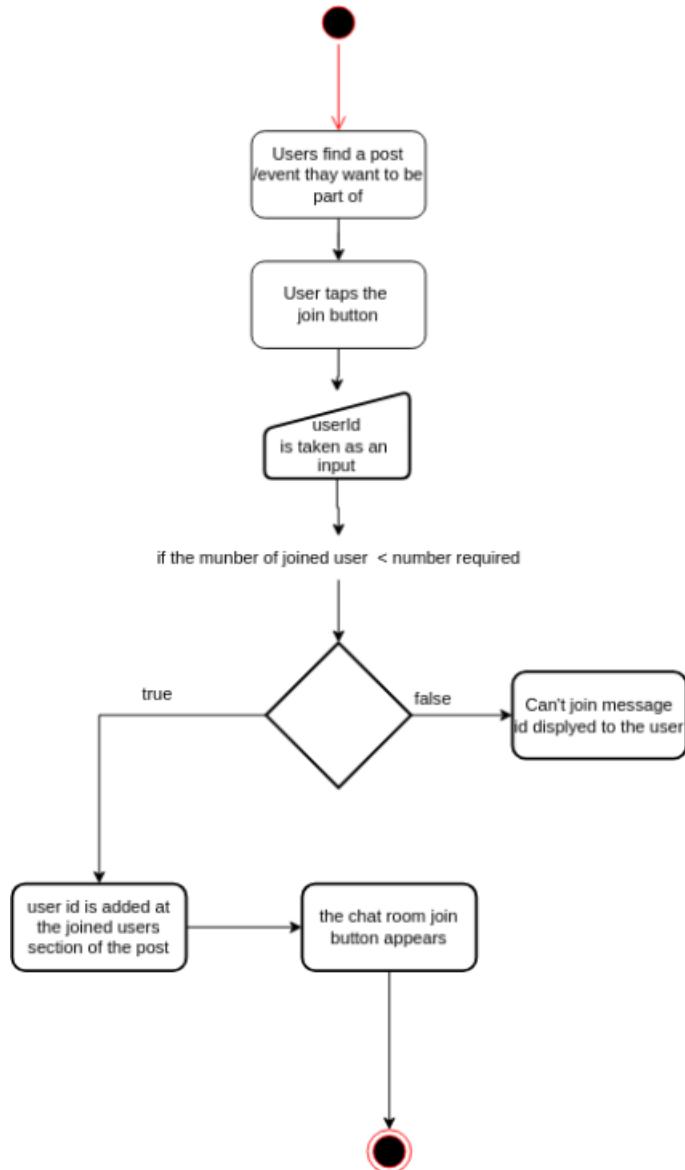


AD_08 – US_08 – Search Users/Posts

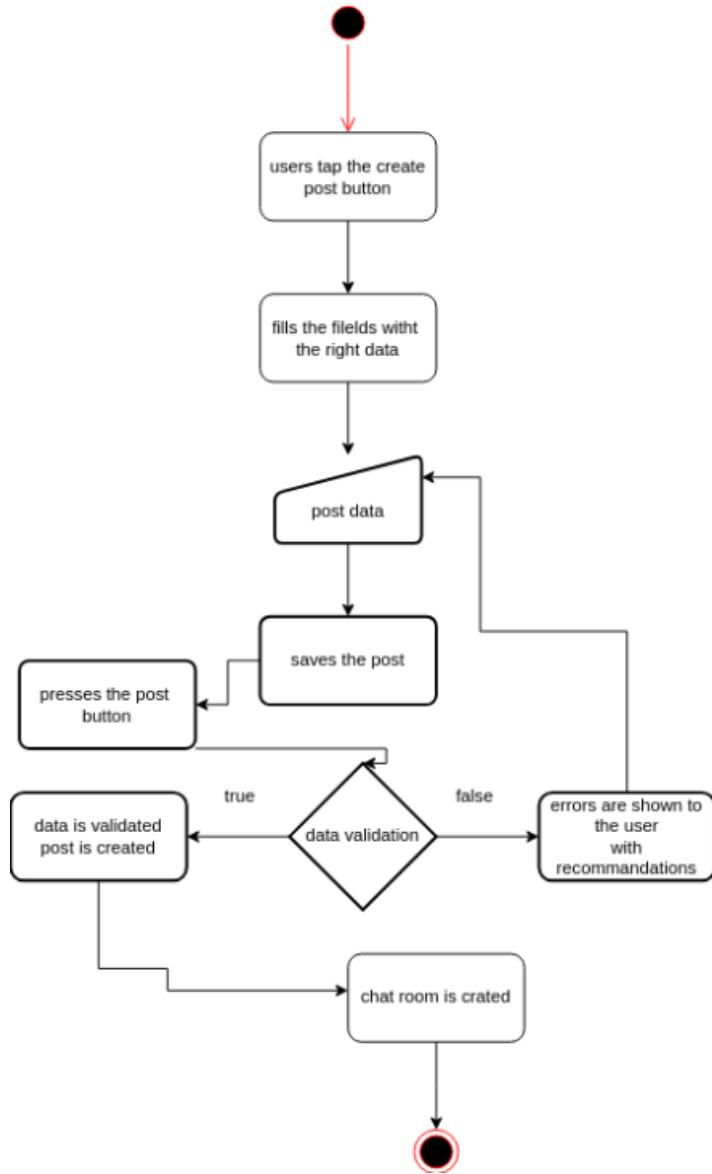


AD_09 – US_09 – Search by tags

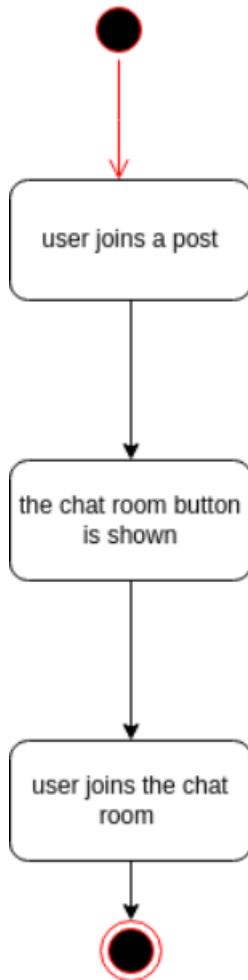
June 9, 2023



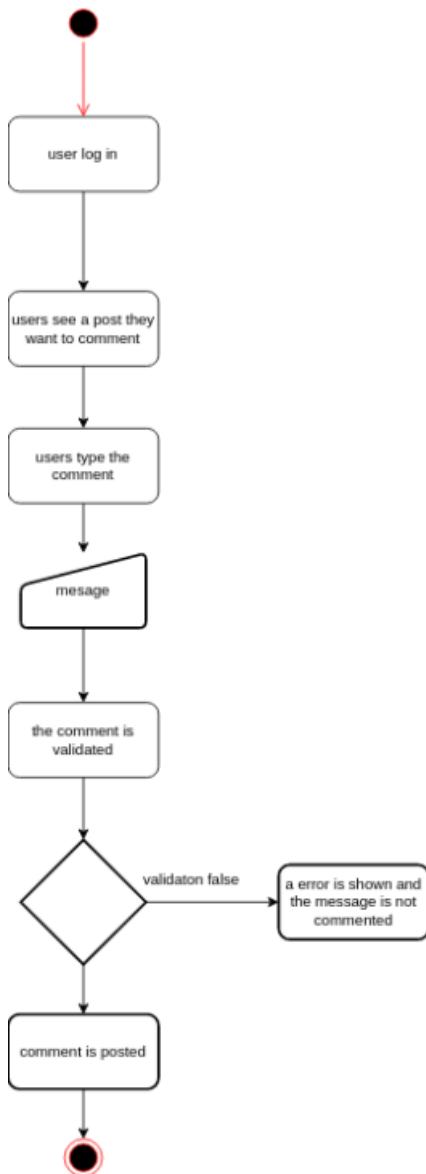
AD_01-US_10 – Users join an event



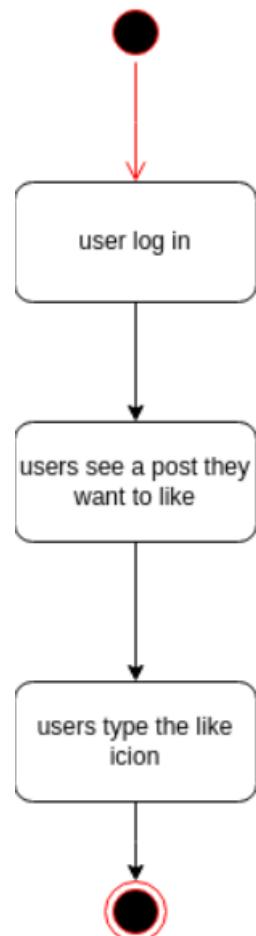
AD_11 – US_11 – Chat Creation



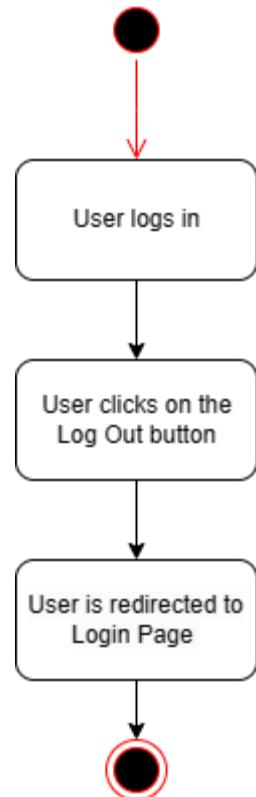
AD_12 – US_12 – Chatting



AD_13 – US_13- Comment on posts

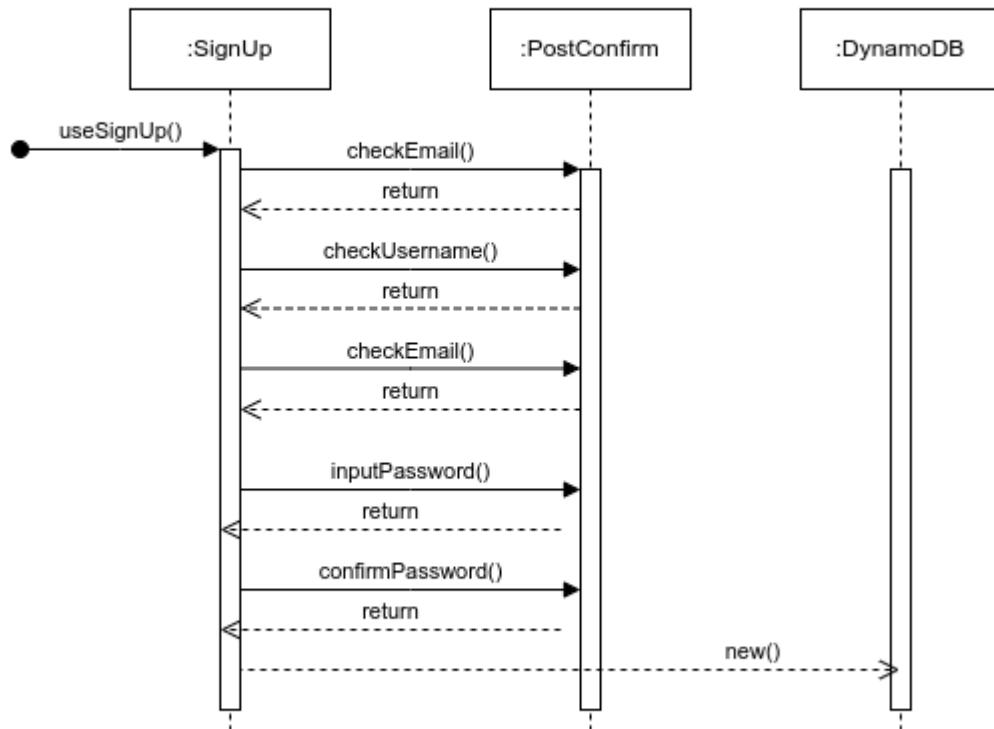


AC_14 – US_14 – Like a post

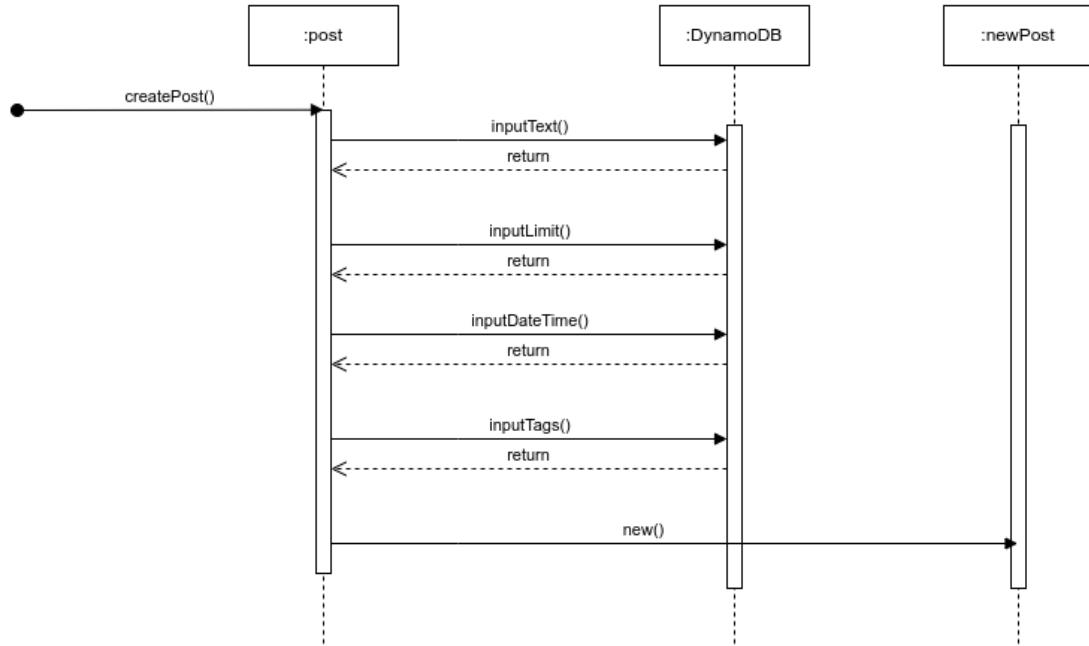


AC_15 – US_15 – User Logout

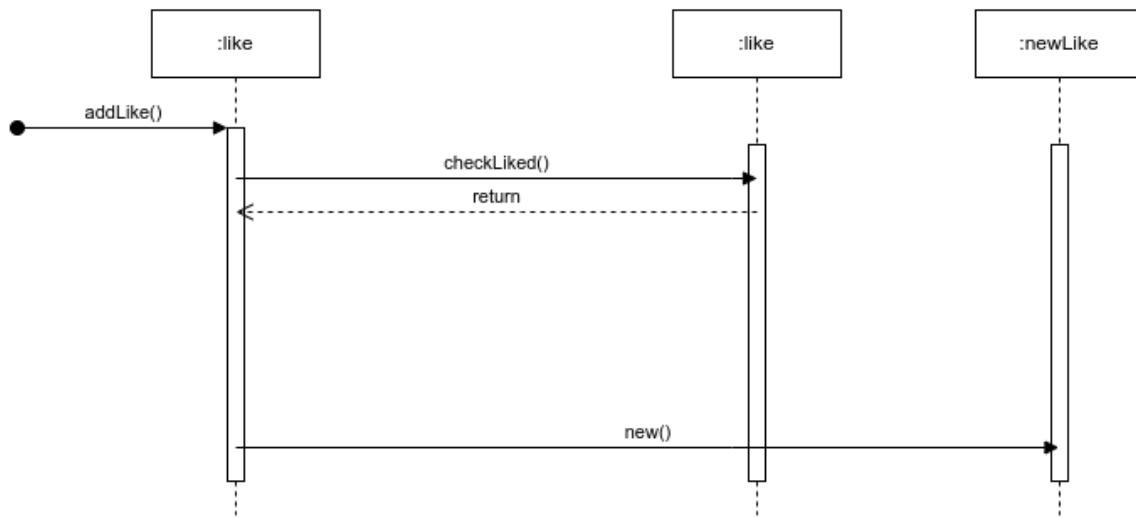
4.2.4 Sequence Diagrams



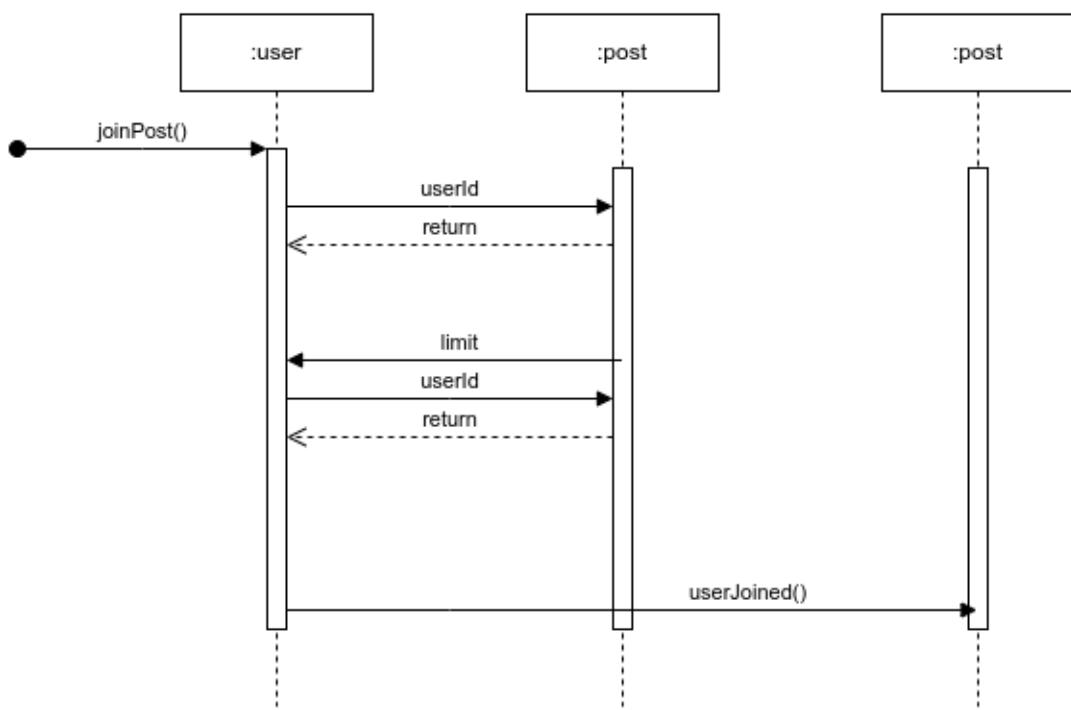
SeqD_01 – Create account



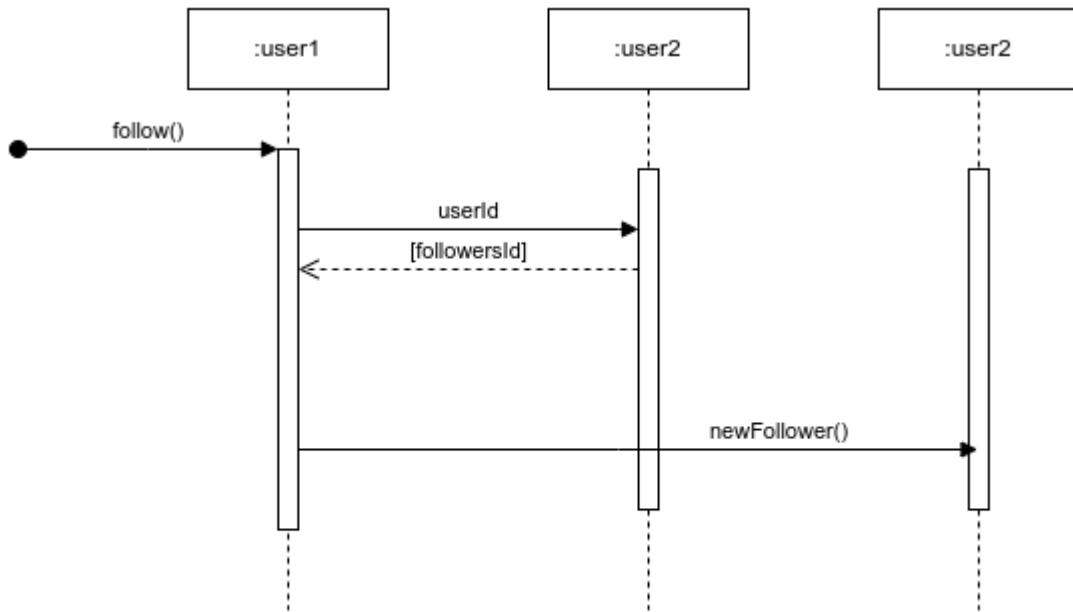
SeqD_02 – Create post



SeqD_03 – Add like to post

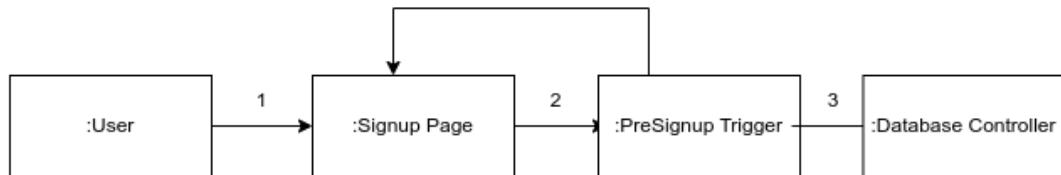


SeqD_04 – Return Users Joined



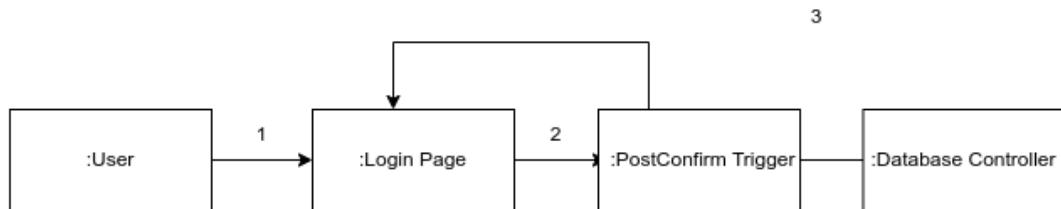
SeqD_05 – Follow users

4.2.5 Collaboration Diagrams



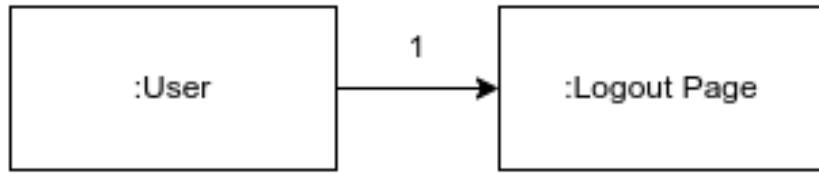
- 1) user enters the neccessary information required in signup page
- 2) A trigger is triggered that validates if user exists in database, if yes return to signup step, if no continue to step 3
- 3) save user in database

ColD_01 – User Signs up



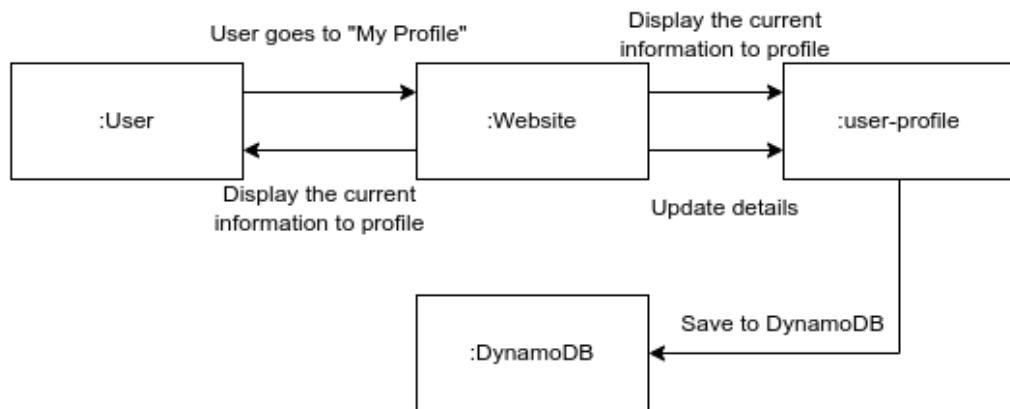
- 1) user enters the neccessary information required in login page
- 2) A trigger is triggered that validates if user exists in database, if yes return to step 3, if no continue to signup page
- 3) save user in database

ColD_02 – User Log in

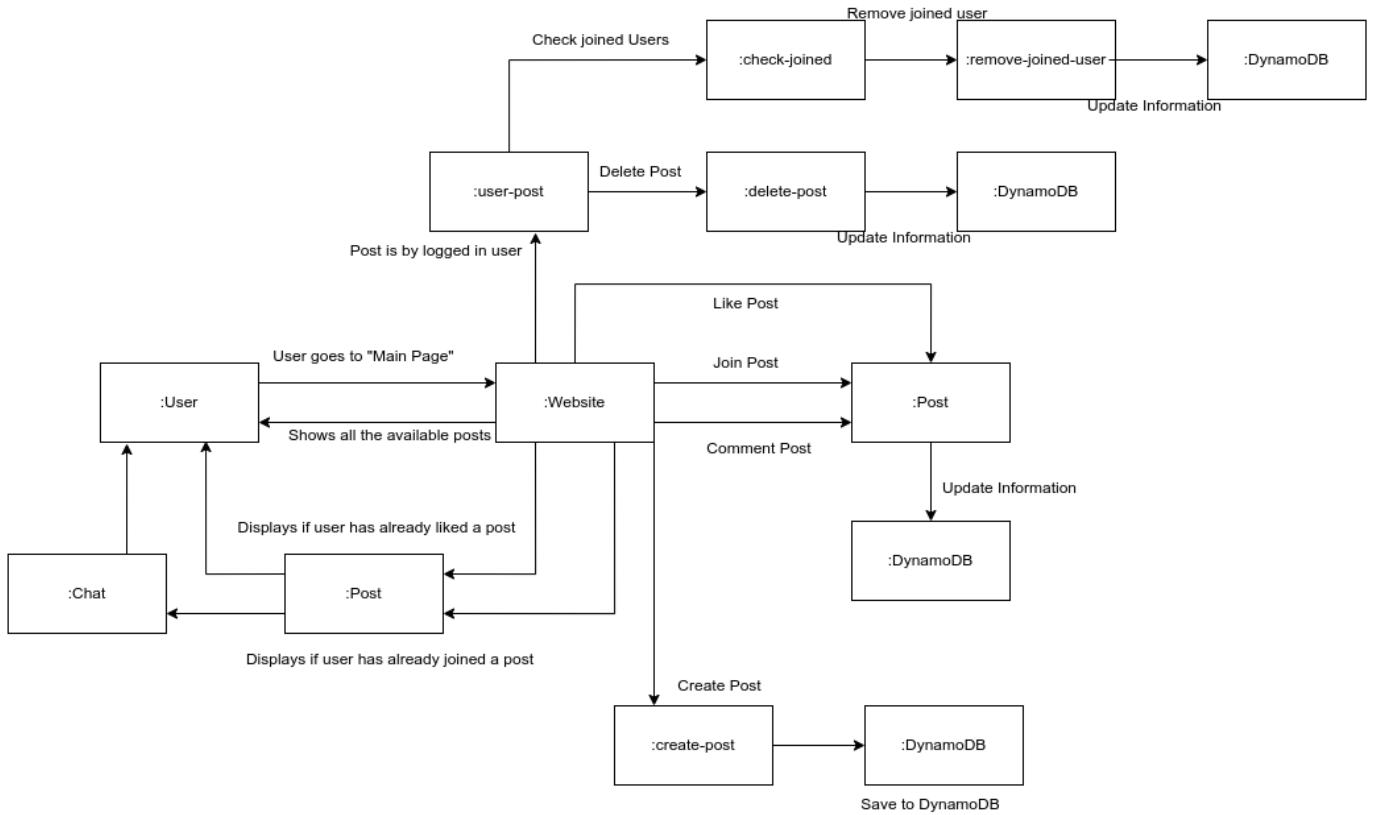


- 1) user clicks the logout button and it logs him out, clears the local storage

ColD_03 – User Log out

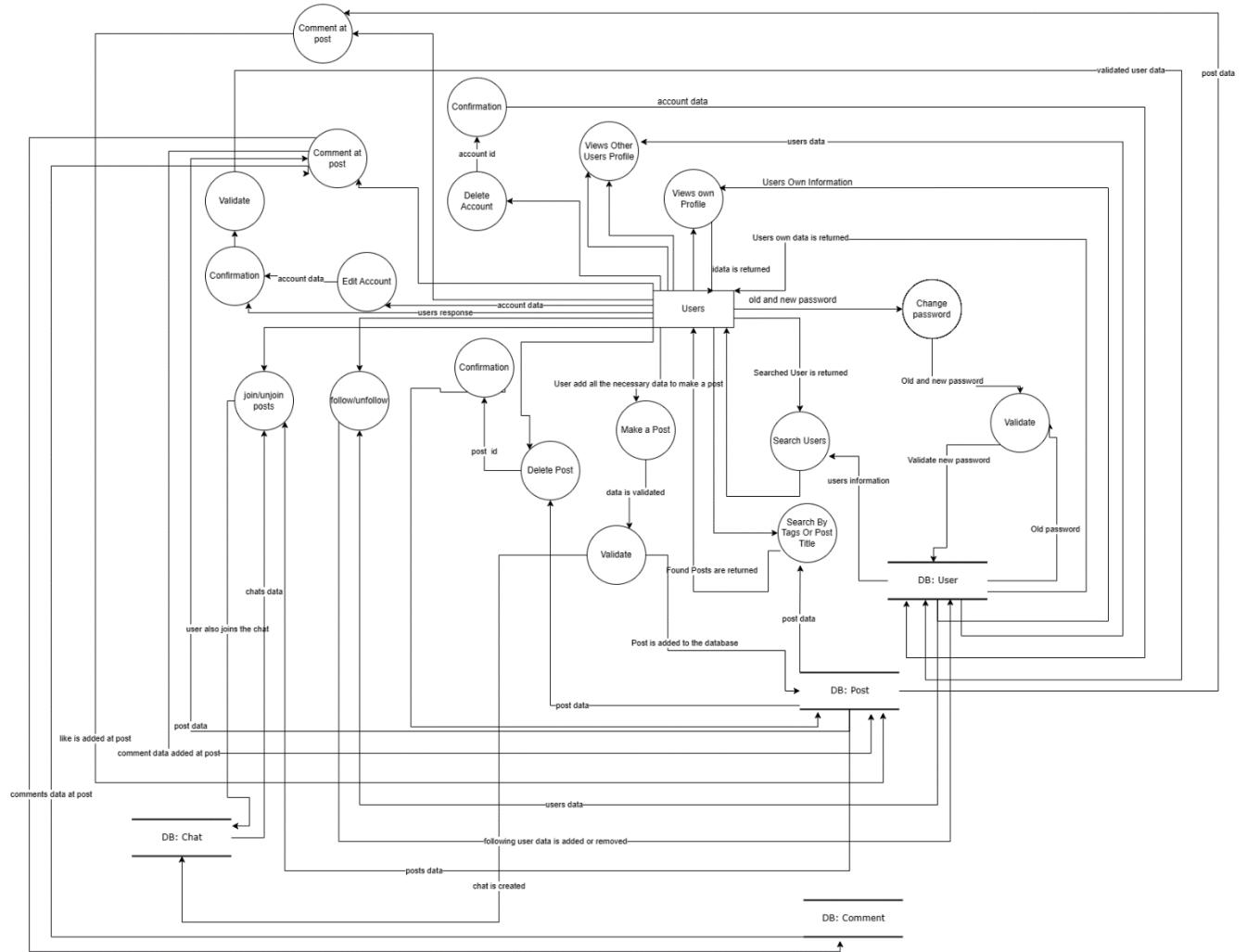


ColD_04 – User Edits Profile



ColD_05 – Post Creation

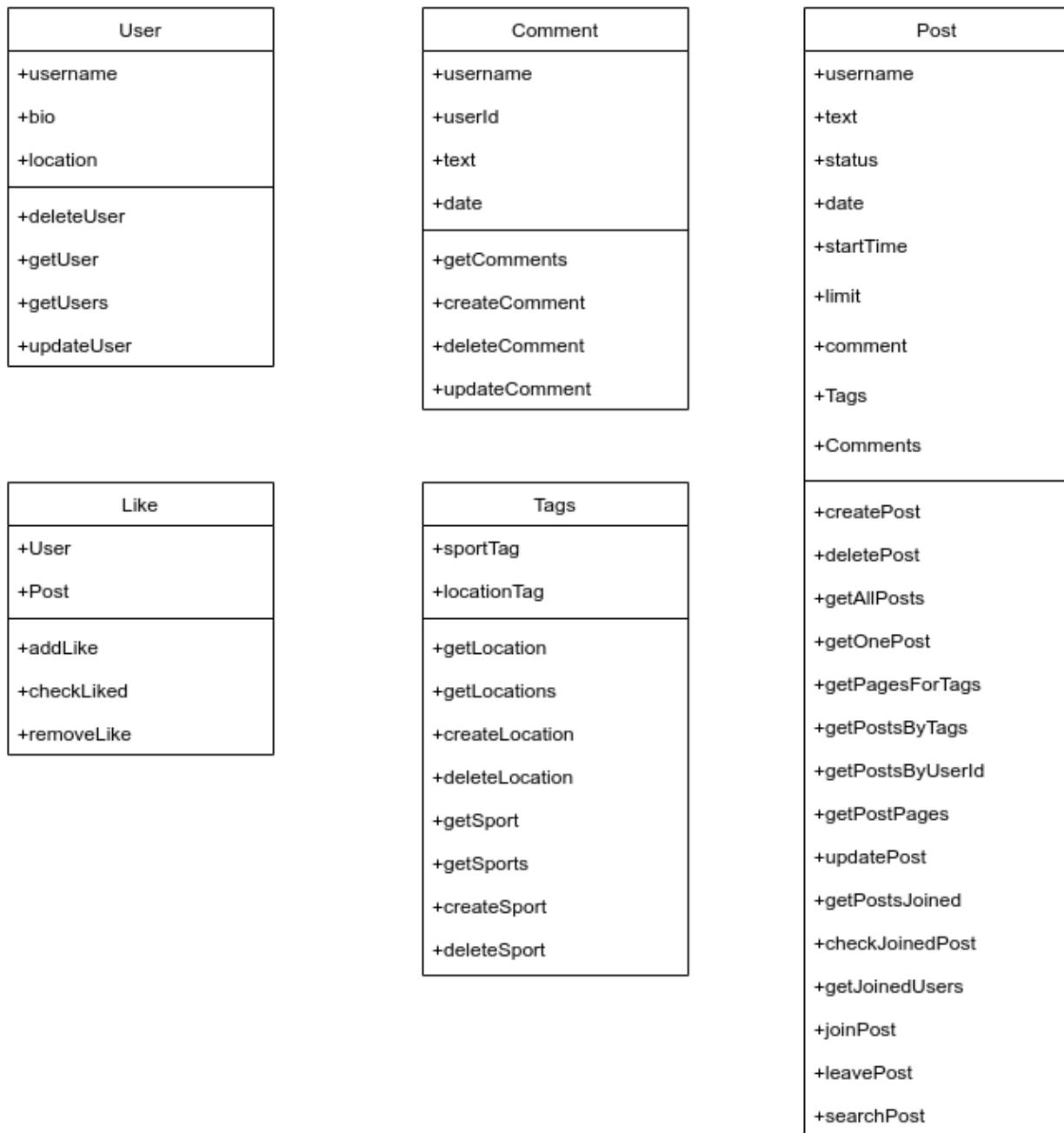
4.3 Data Flow Diagrams



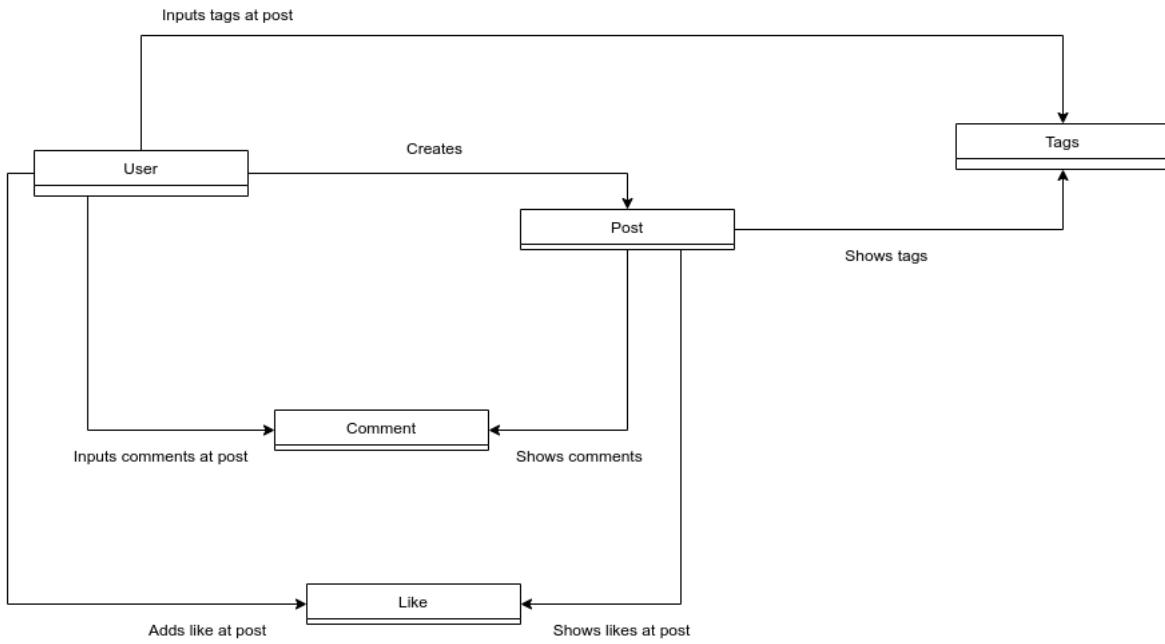
Data Flow Diagram – Users

4.5 Structural Diagrams

4.5.1 Class Diagram

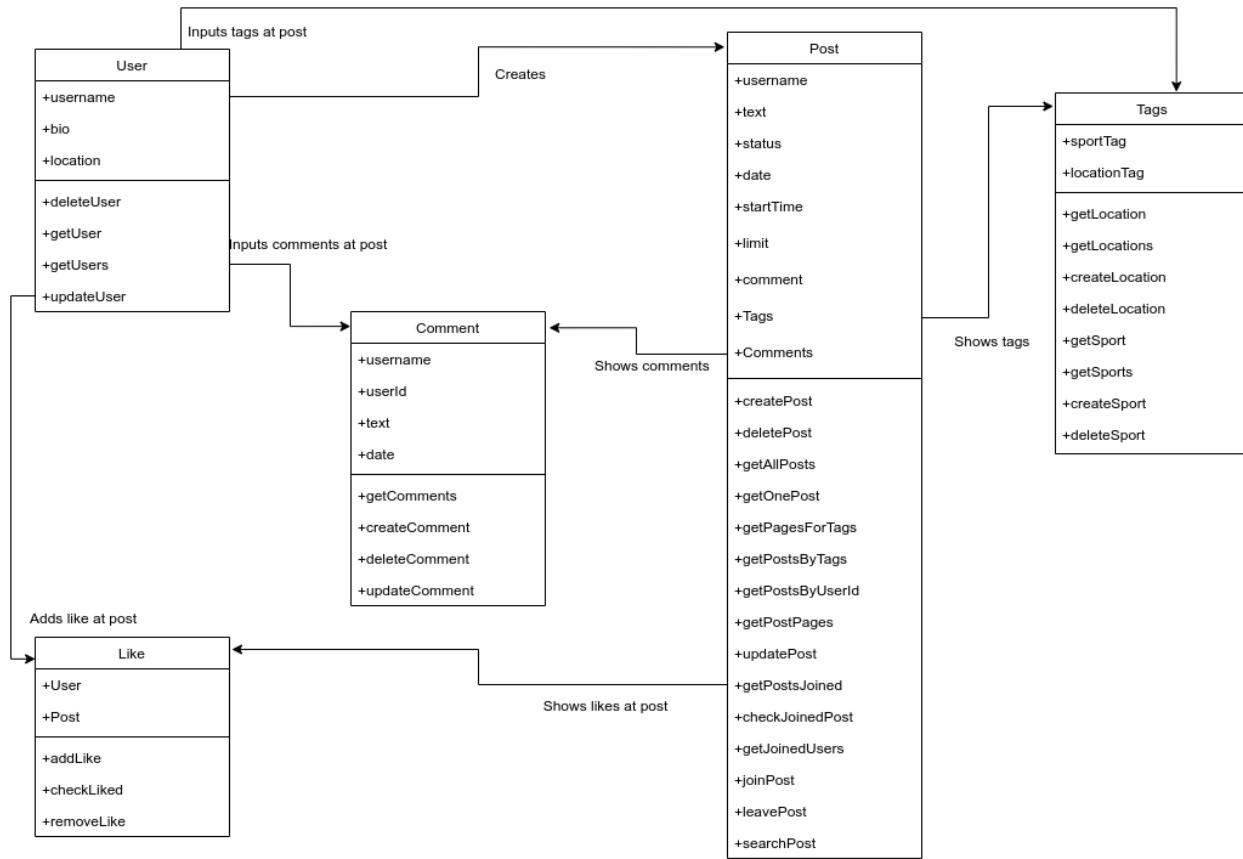


CD_01 – Attributes and methods list for each class



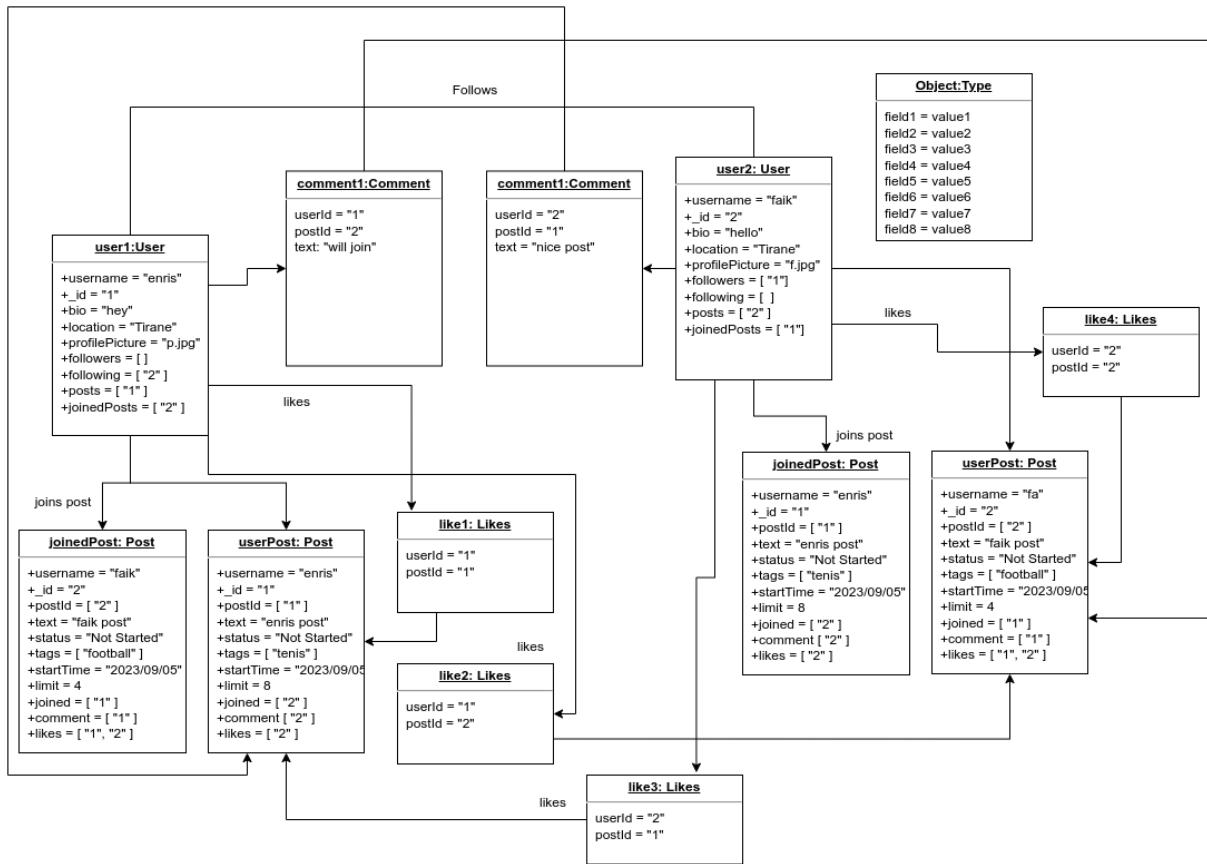
CD_02 – Relation between classes

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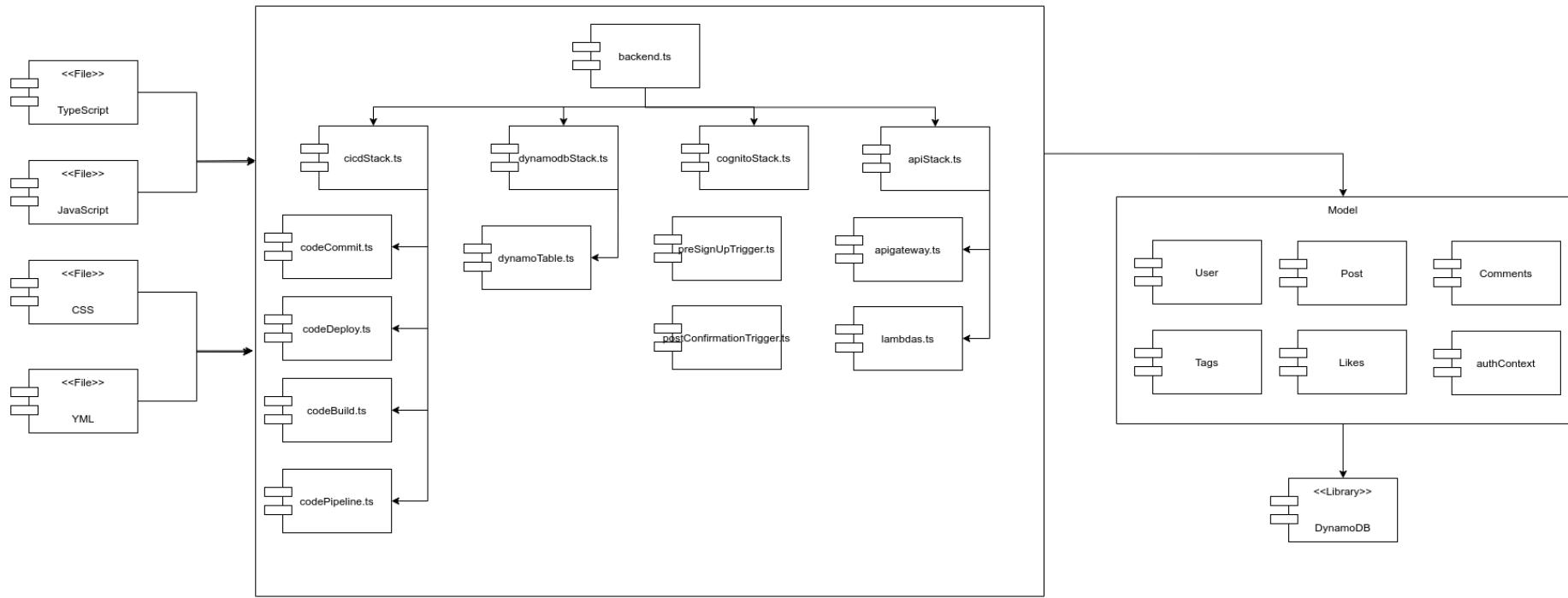
CD_03 – Complete class diagram

4.5.2 Object Diagrams



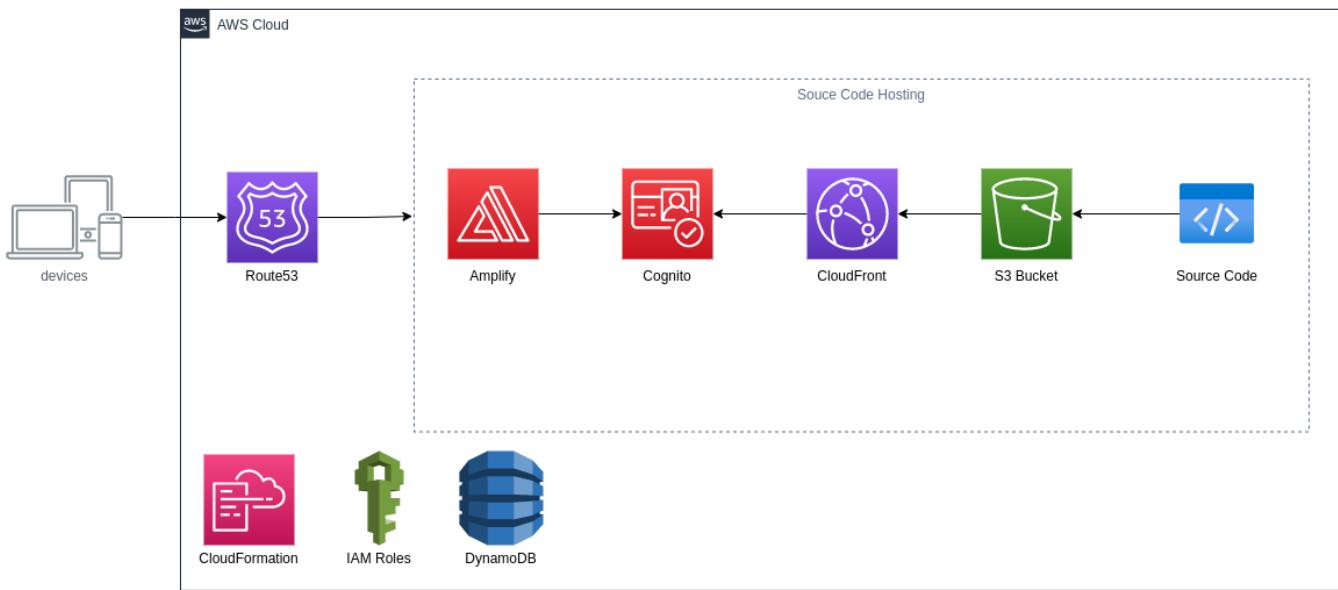
OD_01 – Complete object diagram

4.5.3 Component Diagrams



Component Diagram

4.5.4 Deployment Diagram

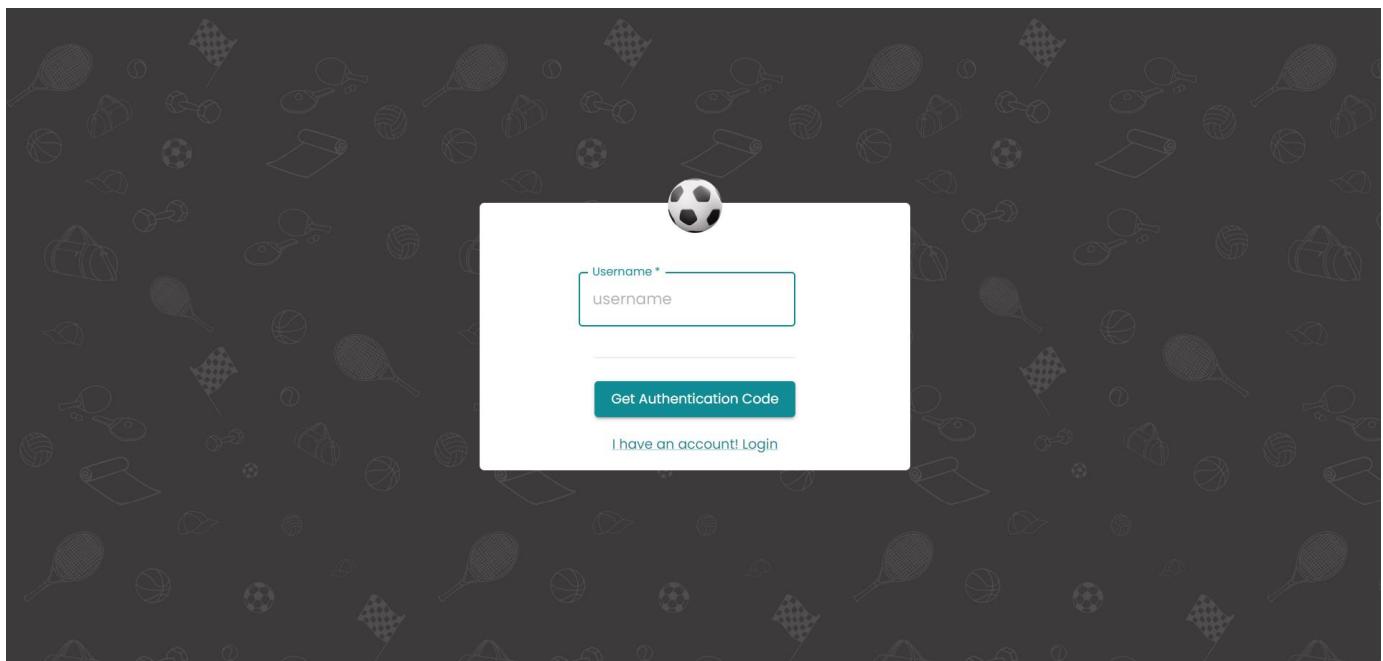
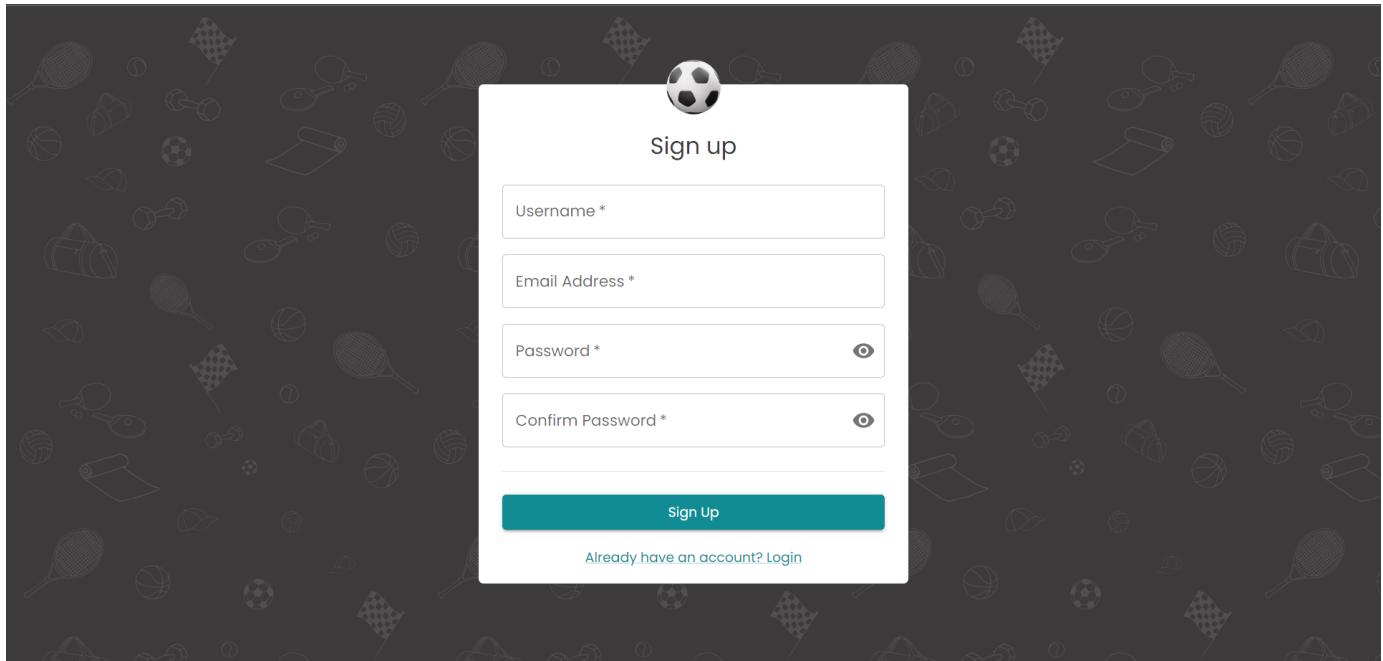


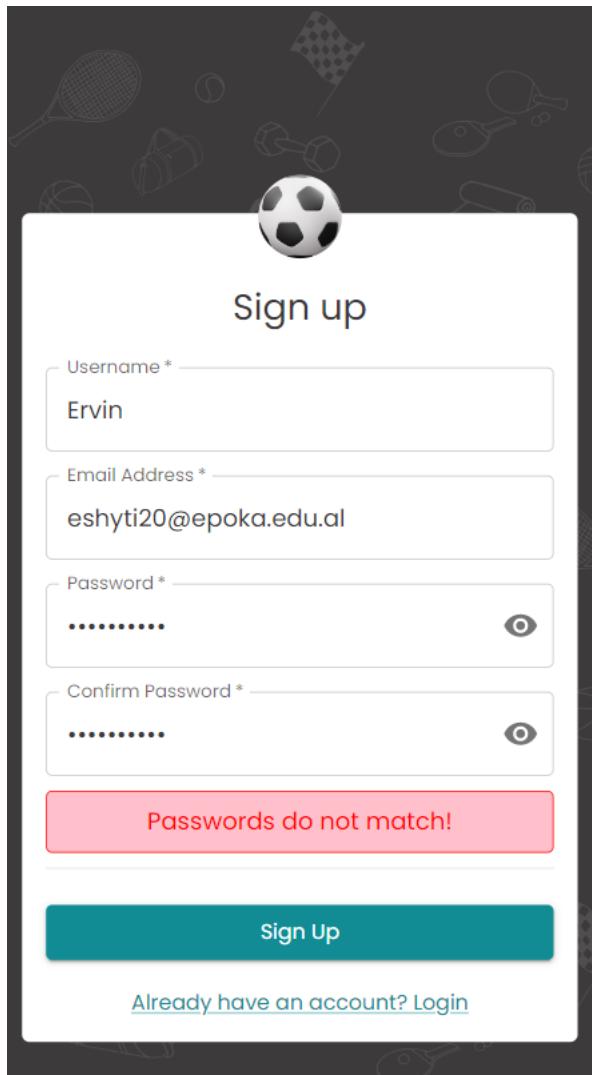
DD_01 – Deployment diagram

5. Implementation Technology

In the following print screens, you can see the implemented product.

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A screenshot of a mobile-style registration form titled "Sign up". The background features a dark theme with various sports-related icons like a tennis racket, baseball, soccer ball, dumbbell, ping pong paddle, and camera. The form fields are white with black borders. The "Username" field contains "Ervin". The "Email Address" field contains "eshyti20@epoka.edu.al". The "Password" field shows a redacted password with an eye icon. The "Confirm Password" field shows a redacted password with an eye icon. A red error message box at the bottom left says "Passwords do not match!". A teal "Sign Up" button is at the bottom, and a blue "Login" link is below it.

Sign up

Username * Ervin

Email Address * eshyti20@epoka.edu.al

Password *

Confirm Password *

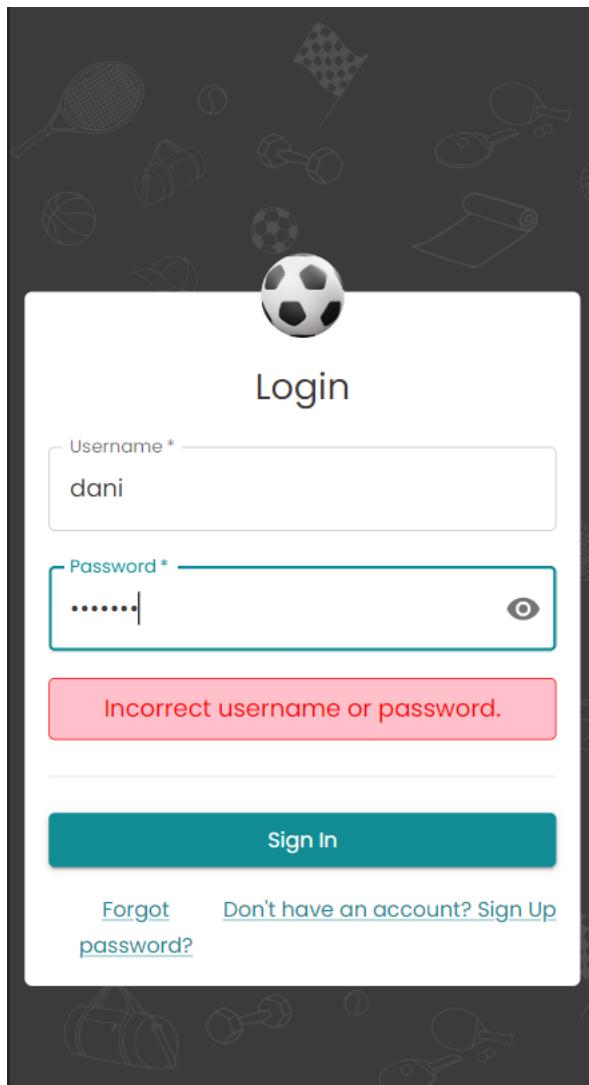
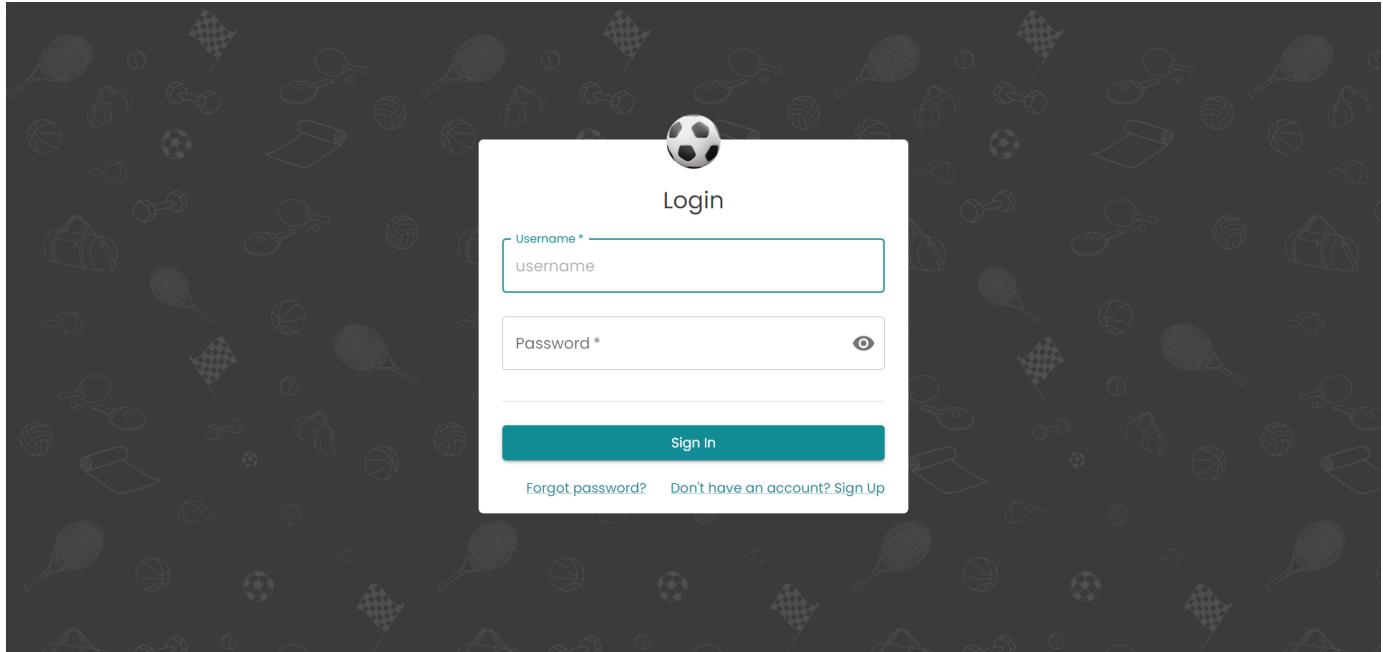
Passwords do not match!

Sign Up

Already have an account? [Login](#)

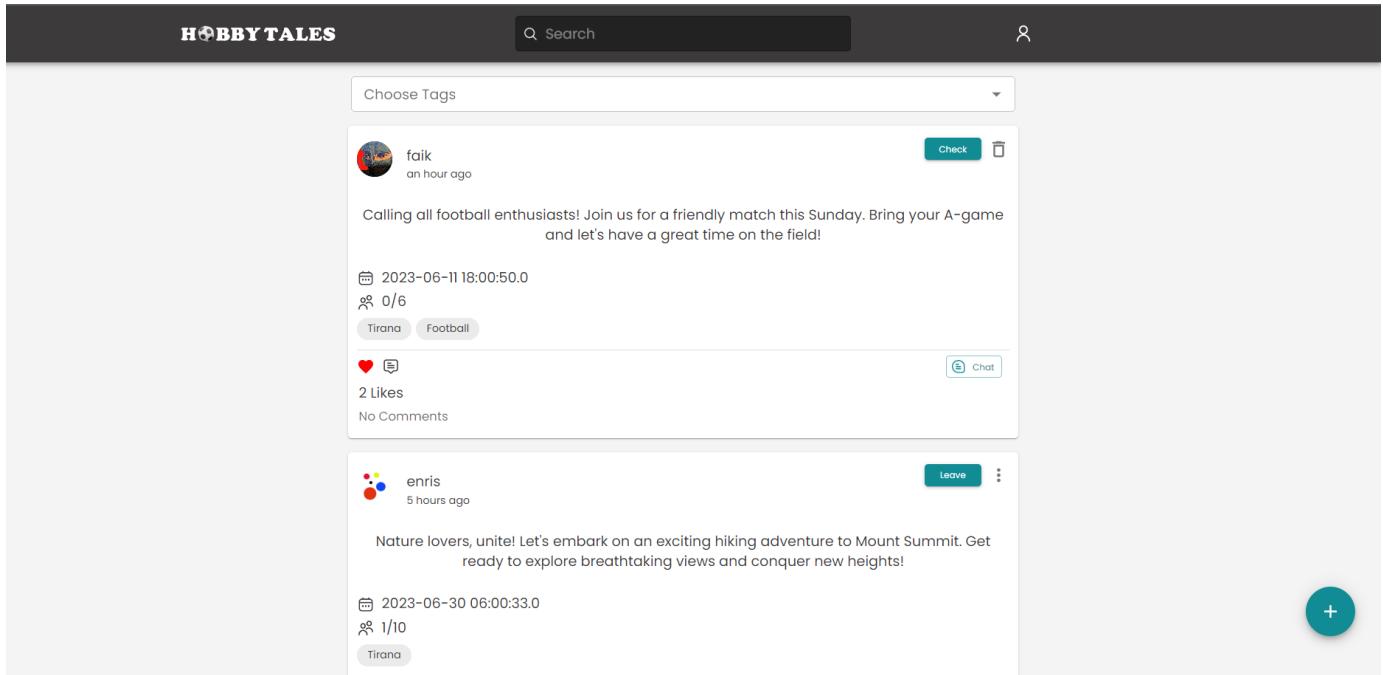
PS_01 – Registration Section, Web and application (with an error example)

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PS_02 – Log in section, Web and application (with an error example)



The screenshot shows the HobbyTales web application interface. At the top, there is a dark header bar with the "HOBBYTALES" logo on the left, a search bar in the center, and a user icon on the right. Below the header, there are two main post cards.

User faik's Post:

- Profile Picture:** faik
- Posted:** on hour ago
- Content:** Calling all football enthusiasts! Join us for a friendly match this Sunday. Bring your A-game and let's have a great time on the field!
- Timestamp:** 2023-06-11 18:00:50.0
- Progress:** 0/6
- Tags:** Tirana, Football
- Interactions:** 2 Likes, No Comments
- Actions:** Check, Chat

User enris's Post:

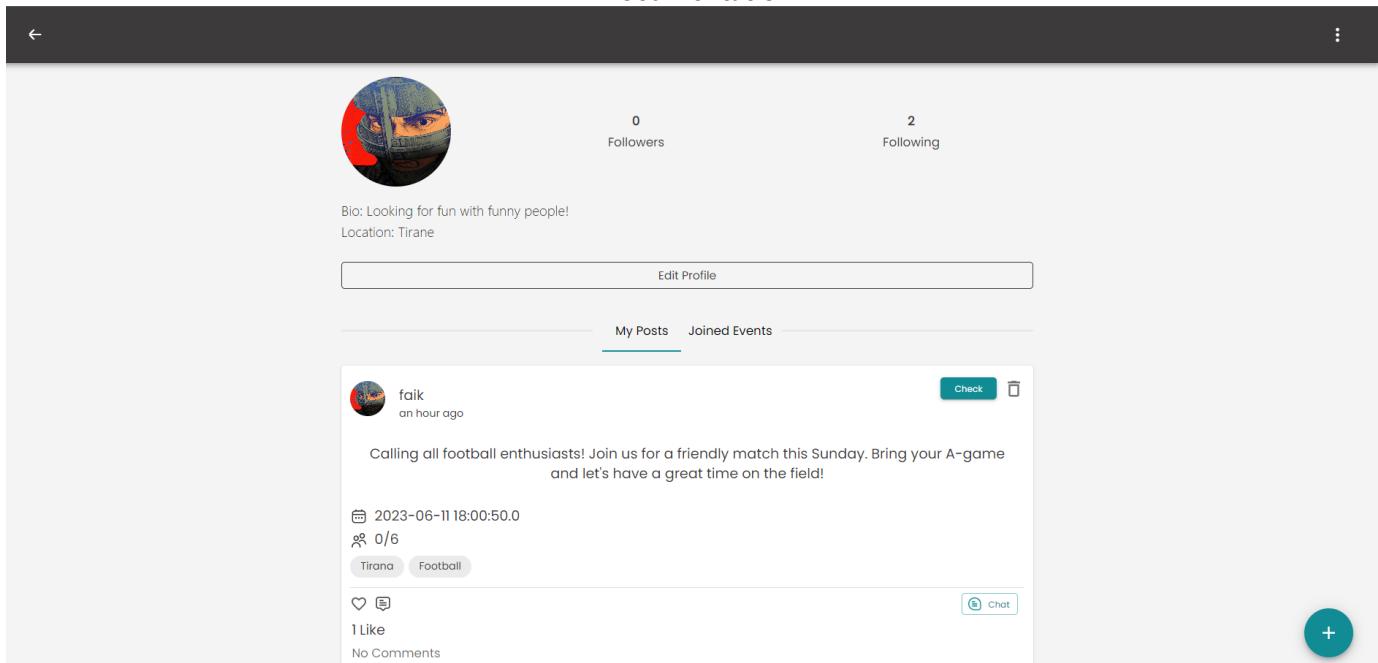
- Profile Picture:** enris
- Posted:** 5 hours ago
- Content:** Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!
- Timestamp:** 2023-06-30 06:00:33.0
- Progress:** 1/10
- Tags:** Tirana
- Actions:** Leave, More options

A teal circular button with a white plus sign is located on the right side of the screen.

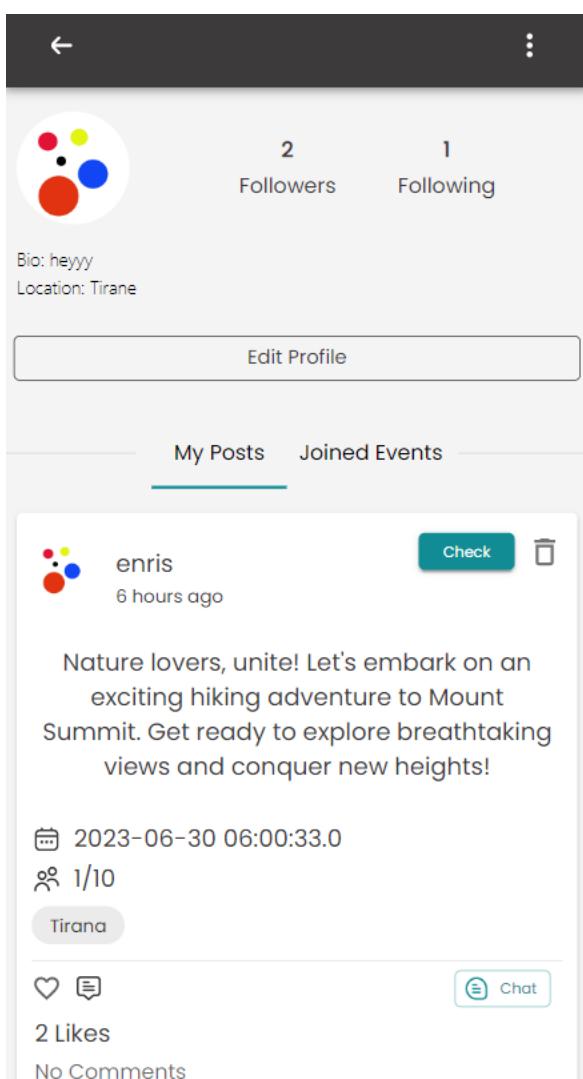
The screenshot displays the HobbyTales mobile application interface. At the top, there is a navigation bar with the 'HOBBY TALES' logo, a search icon, and a user profile icon. Below the navigation bar, there is a dropdown menu labeled 'Choose Tags'. The first post is by user 'faik', who posted 2 hours ago. The post content is: 'Calling all football enthusiasts! Join us for a friendly match this Sunday. Bring your A-game and let's have a great time on the field!'. Below the post content, there are several interaction icons: a calendar icon with the date '2023-06-11 18:00:50.0', a person icon with '3/6', and two circular tags labeled 'Tirana' and 'Football'. There are also like and comment icons, and a 'Chat' button. The post has '3 Likes' and a link to 'View All 2 Comments'. The second post is by user 'enris', who posted 6 hours ago. The post content is: 'Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!'. This post also includes interaction icons, a 'Check' button, and a delete icon.

PS_03 – Home page, web and application

HobbyTales Documentation



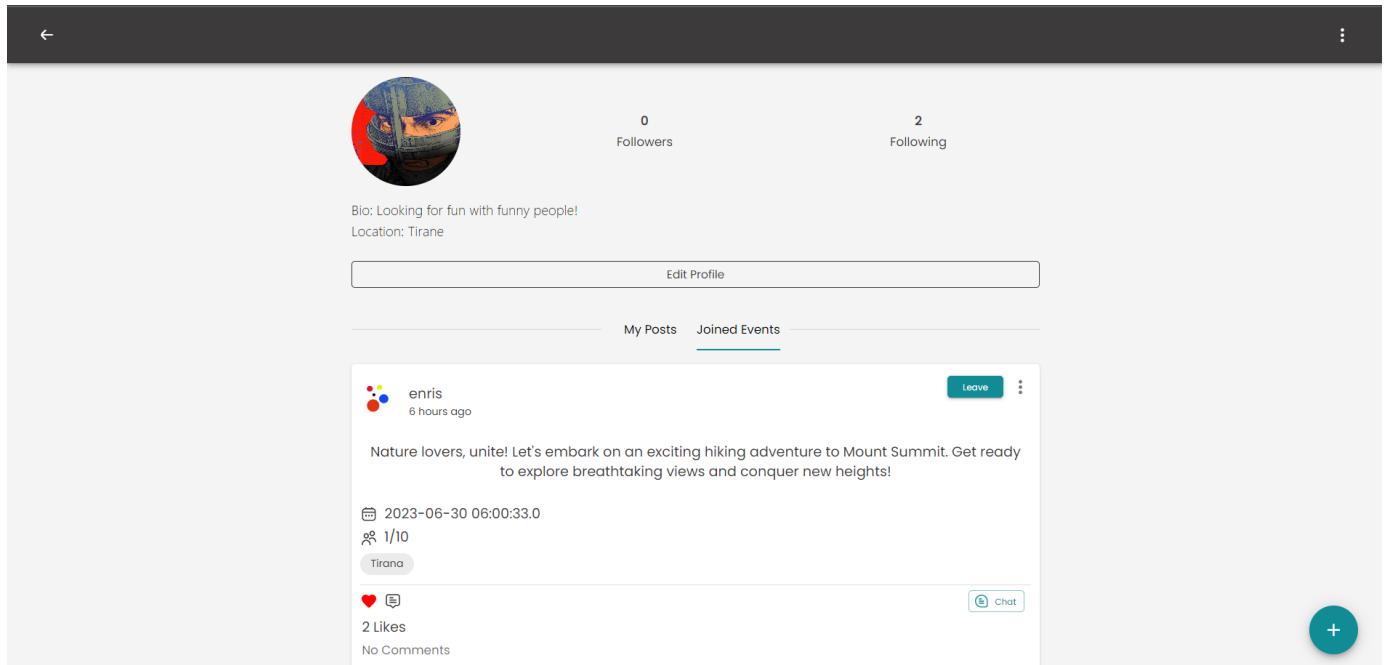
A screenshot of a user profile page. At the top, there's a circular profile picture of a person's face. To the right of the picture, it says "0 Followers" and "2 Following". Below the profile picture is a bio: "Bio: Looking for fun with funny people! Location: Tirane". A "Edit Profile" button is below the bio. Below that are two tabs: "My Posts" (which is underlined) and "Joined Events". Under "My Posts", there is one post by "faik" from an hour ago. The post content is: "Calling all football enthusiasts! Join us for a friendly match this Sunday. Bring your A-game and let's have a great time on the field!". It includes a timestamp (2023-06-11 18:00:50.0), a participation count (0/6), and hashtags (Tirana, Football). Below the post are "1 Like" and "No Comments". On the far right of the post area is a teal circle with a white plus sign.



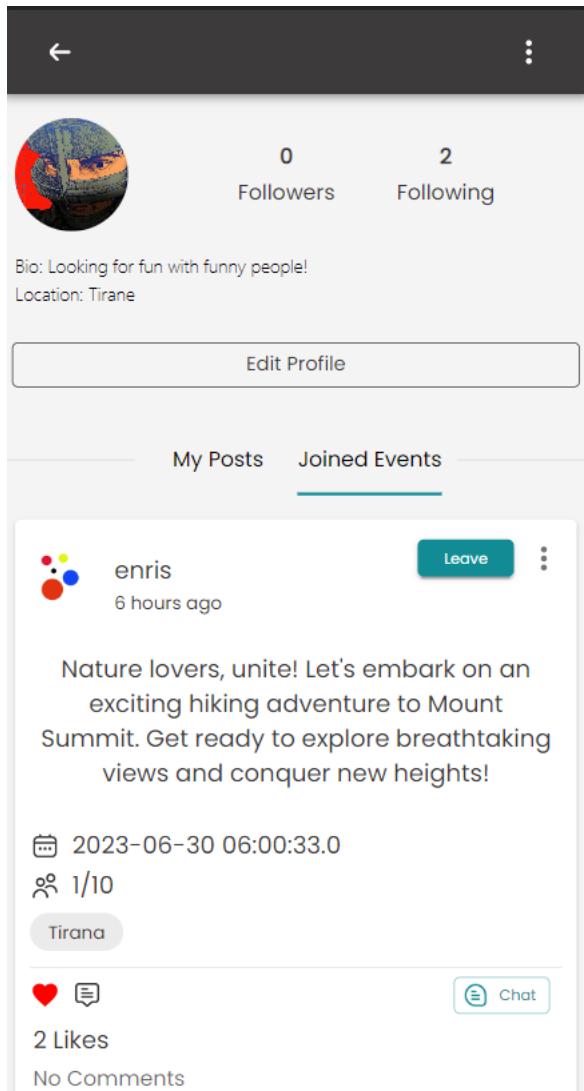
A screenshot of a user profile page. At the top, there's a circular profile picture with colored dots. To the right of the picture, it says "2 Followers" and "1 Following". Below the profile picture is a bio: "Bio: heyyy Location: Tirane". A "Edit Profile" button is below the bio. Below that are two tabs: "My Posts" (which is underlined) and "Joined Events". Under "My Posts", there is one post by "enris" from 6 hours ago. The post content is: "Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!". It includes a timestamp (2023-06-30 06:00:33.0), a participation count (1/10), and a location (Tirana). Below the post are "2 Likes" and "No Comments".

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PS_04 – User Profile



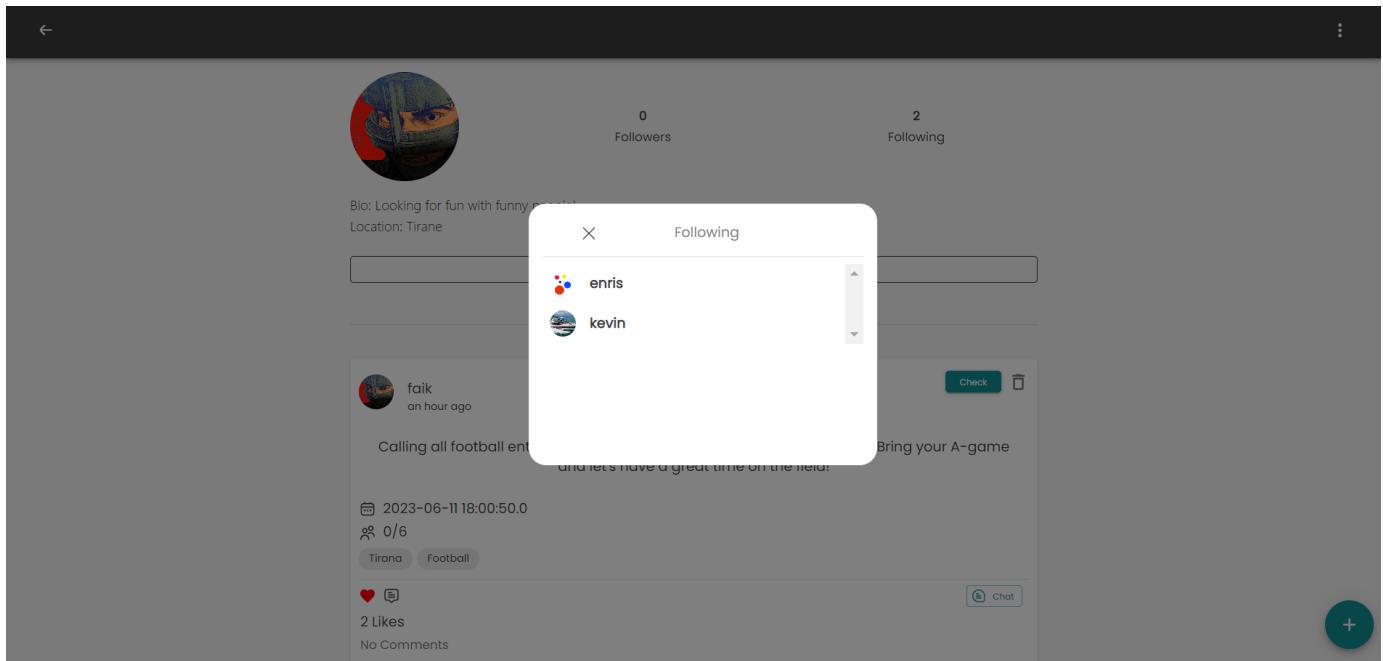
The screenshot displays a user profile page from the HobbyTales application. At the top, there is a header bar with a back arrow icon on the left and three vertical dots on the right. Below the header is a circular profile picture of a person wearing a blue cap and a red jacket. To the right of the profile picture, the text "0 Followers" is displayed above a "Following" section which shows "2 Following". Below the profile picture, the user's bio is listed as "Bio: Looking for fun with funny people!" and their location as "Location: Tirane". A "Edit Profile" button is located just below the bio. Below this, there are two tabs: "My Posts" and "Joined Events". The "Joined Events" tab is currently selected and underlined in blue. A post by a user named "enris" is shown, posted 6 hours ago. The post content is "Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!". Below the post content, there are details about the photo: "2023-06-30 06:00:33.0", "1/10", and "Tirana". There are also like and comment icons with the counts "2 Likes" and "No Comments". On the far right of the event card, there is a "Leave" button and a more options menu represented by three vertical dots. In the bottom right corner of the main content area, there is a teal circular button with a white plus sign.



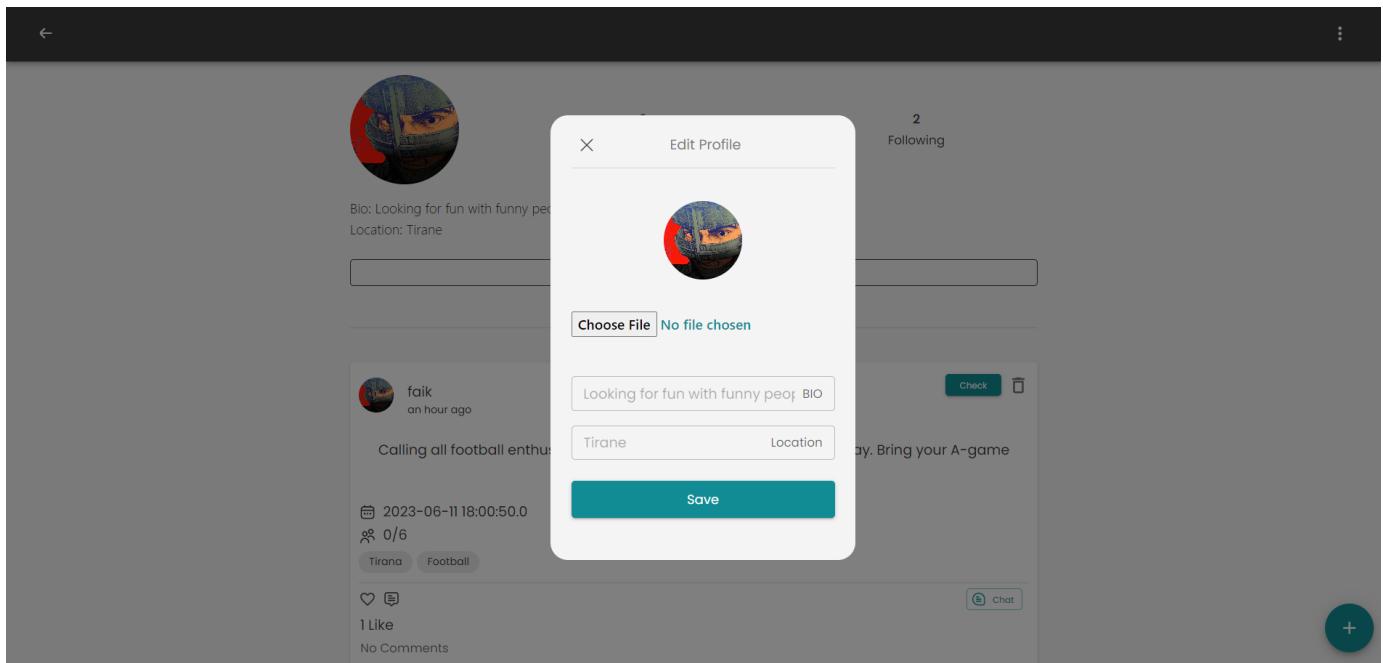
A screenshot of a mobile application interface for a user profile. At the top, there's a dark header bar with a back arrow on the left and three vertical dots on the right. Below the header is a circular profile picture of a person. To the right of the picture, the number '0' is followed by 'Followers' and the number '2' followed by 'Following'. Underneath this, the user's bio reads: 'Bio: Looking for fun with funny people!' and 'Location: Tirane'. A large blue button labeled 'Edit Profile' is centered below the bio. Below the edit button, there are two tabs: 'My Posts' and 'Joined Events', with 'Joined Events' being the active tab, indicated by a teal underline. The main content area shows a single event entry for 'enris' posted '6 hours ago'. The event title is 'Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!'. Below the title, there are event details: a calendar icon with the date '2023-06-30 06:00:33.0', a person icon with '1/10', and a location tag 'Tirana'. At the bottom of the event card, there are icons for 'Likes' (a heart) and 'Comments' (a speech bubble), with the text '2 Likes' and 'No Comments' next to them. There is also a 'Chat' button with a person icon and the word 'Chat'.

PS_05 – User Profile, in the “Joined Events” section

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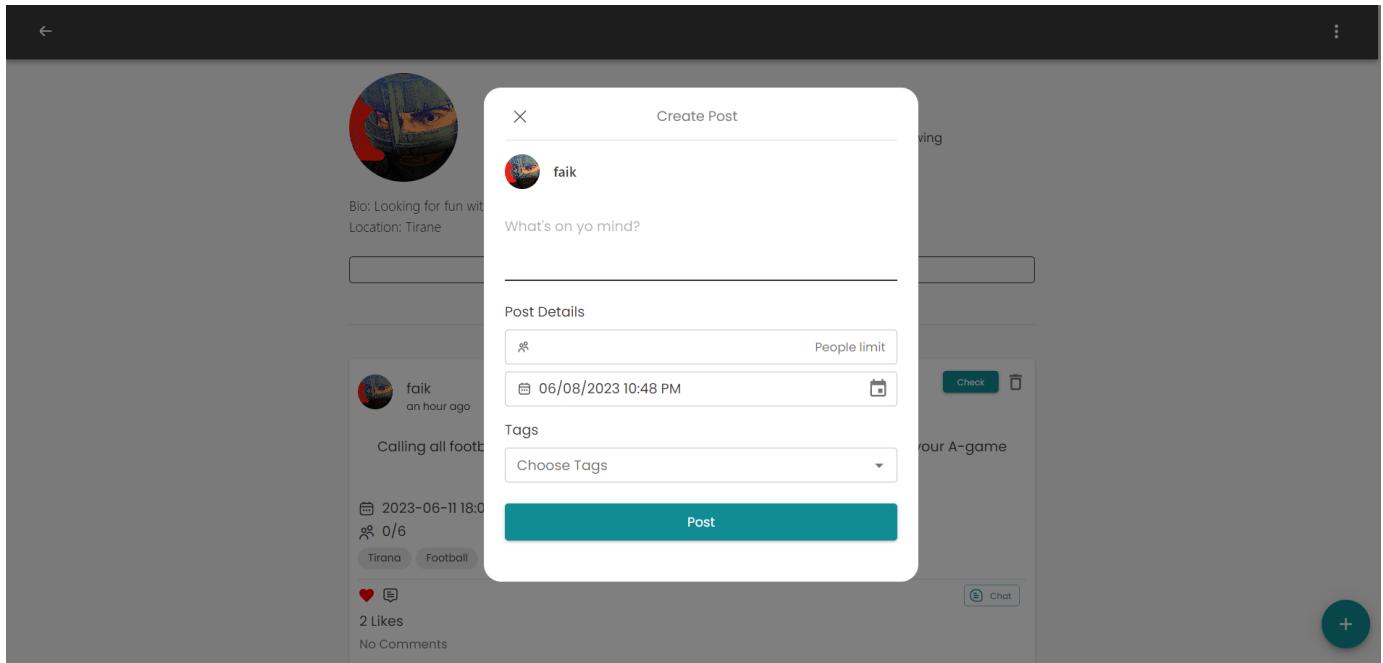


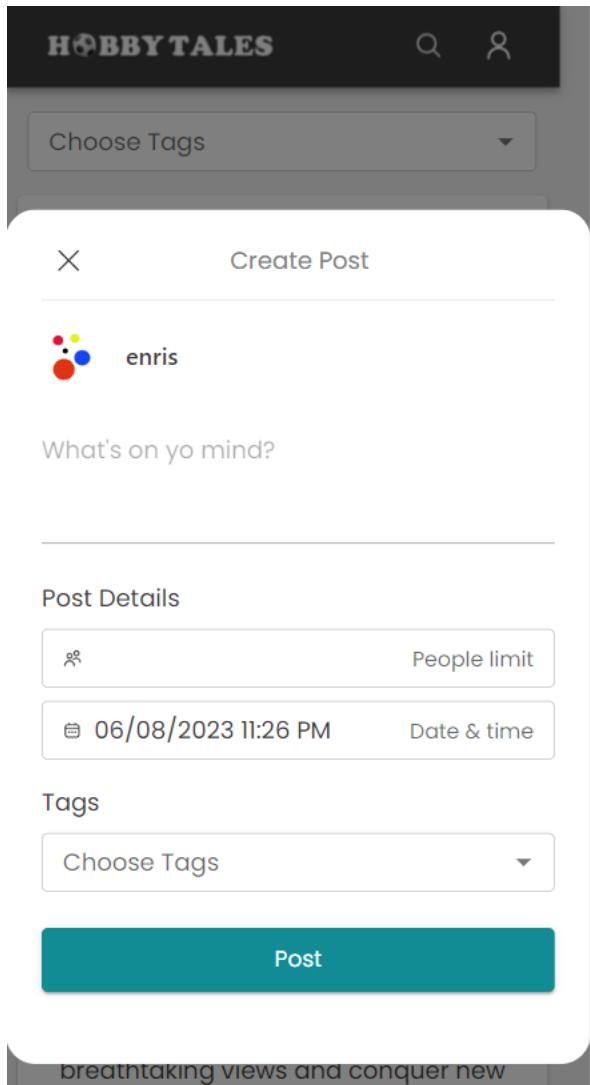
PS_06 – Viewing Following/Followers



PS_07 – Profile Edit section

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PS_08 – Post Creation

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The screenshot shows the HobbyTales application interface. At the top, there is a navigation bar with the 'HOBBY TALES' logo, a search bar containing 'Search' with a magnifying glass icon, and a user profile icon. Below the navigation bar is a sidebar titled 'Choose Tags' with the input 'location/Sport'. The main content area displays a list of locations: Elbasan, Shkoder, Kukes, Lezhe, Peshkopi, Kruje, and Durres. Below this, it shows '2 Likes' and 'No Comments'. A post by user 'enris' is visible, posted 5 hours ago, with the text: 'Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!'. The post includes a timestamp (2023-06-30 06:00:33.0), a photo thumbnail showing 1/10 images, and tags 'Tirana' and 'Sport'. A teal circular button with a '+' sign is located on the right side of the screen.

PS_09 – Search By Tags

The screenshot shows the HobbyTales application interface. At the top, there is a navigation bar with the 'HOBBY TALES' logo, a search bar containing 'dani' with a magnifying glass icon, and a user profile icon. Below the navigation bar is a sidebar titled 'Choose Tags' with the input 'dani'. The main content area displays a list of posts by user 'dani': 'Calling all footballers!' (2 hours ago, 2/6 photos, Tirana, Football). Below this, it shows '2 Likes' and 'Hide Comments'. A comment by user 'enris' is visible, posted a few seconds ago, with the text: 'See you on Sunday'. A post by user 'faik' is also partially visible. A teal circular button with a '+' sign is located on the right side of the screen.

PS_10 – Search Users

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HOBBY CHAT

Main Page

faik

Hey guys! Are you excited about the big football match that is happening this weekend? Can't wait for Sunday!

5 minutes ago

enris

Yes! Sunday is going to be amazing! I've been waiting for this match for weeks.

4 minutes ago

kevin

Hold on, guys. I just found out that I have doctor's appointment on Sunday. Can we adjust the schedule for Monday?

2 minutes ago

faik

That's unfortunate, but player health comes first. Monday it is then!

2 minutes ago

enris

Absolutely, safety should always come first.

less than a minute ago

enris

Looking forward to the match on Monday now!

Send

Message

HOBBY CHAT

Main Page

faik

When are we going on this adventure?

1 minute ago

enris

How about Sunday morning?

less than a minute ago

faik

Sunday works great for me

less than a minute ago

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PS_11 – Chat Section

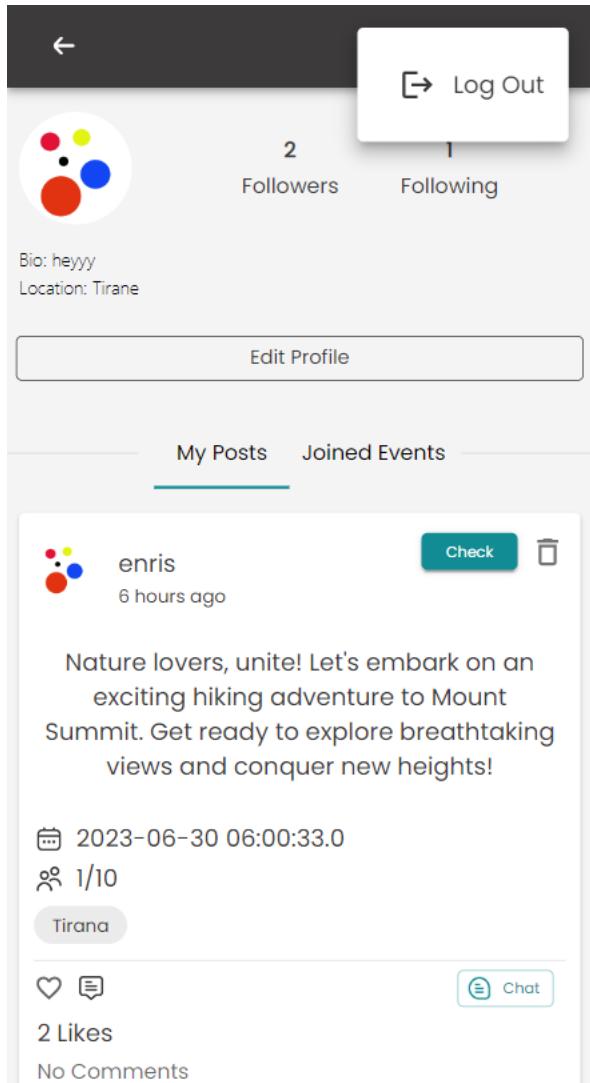
The screenshot shows the HobbyTales application interface. At the top, there is a navigation bar with the logo "HOBBYTALES", a search bar, and a user icon. Below the navigation bar, there is a "Choose Tags" dropdown menu. The main content area displays two messages. The first message is from a user named "faik" posted 2 hours ago. The message content is: "Calling all football enthusiasts! Join us for a friendly match this Sunday. Bring your A-game and let's have a great time on the field!". Below the message, it shows the timestamp "2023-06-11 18:00:50.0" and the count "1/6". The message is tagged with "Tirana" and "Football". It has 2 Likes and a "Chat" button. The second message is from a user named "enris" posted 5 hours ago. The message content is: "Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!". Below the message, it shows the timestamp "2023-06-30 06:00:33.0" and the count "1/10". The message is tagged with "Tirana" and "Football". There is a "Done" button at the bottom of the message input field.

PS_12 – Commenting

The screenshot shows the HobbyTales application interface. At the top, there is a navigation bar with the logo "HOBBYTALES", a search bar, and a user icon. Below the navigation bar, there is a "Choose Tags" dropdown menu. The main content area displays two messages. The first message is from a user named "faik" posted 2 hours ago. The message content is: "Calling all football enthusiasts! Join us for a friendly match this Sunday. Bring your A-game and let's have a great time on the field!". Below the message, it shows the timestamp "2023-06-11 18:00:50.0" and the count "2/6". The message is tagged with "Tirana" and "Football". It has 2 Likes and a "Chat" button. Below the message, there is a "Hide Comments" link. A comment from "dani" is shown, posted 2 minutes ago, with the content "I will be there!". Another comment from "enris" is shown, posted a few seconds ago, with the content "See you on Sunday". The second message is from a user named "enris" posted 5 hours ago. The message content is: "Nature lovers, unite! Let's embark on an exciting hiking adventure to Mount Summit. Get ready to explore breathtaking views and conquer new heights!". Below the message, it shows the timestamp "2023-06-30 06:00:33.0" and the count "1/10". The message is tagged with "Tirana" and "Football". There is a "Check" button at the bottom of the message input field.

PS_13 – Comment Section in Main Page

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PS_14 – Logging Out

6. Project Planning

Project Name: HobbyTales

Members: Enris Kumi, Faik Koprenca, Redi Ceni, Daniel Abdiaj, Ervin Shyti, Fjorala Tashi

Real start and end days: 01.03.2023 – 07.06.2018

Estimated start and end days: 01.02.2023 – 12.06.2018

Real total days: 97 days

Estimated total days: 132 days

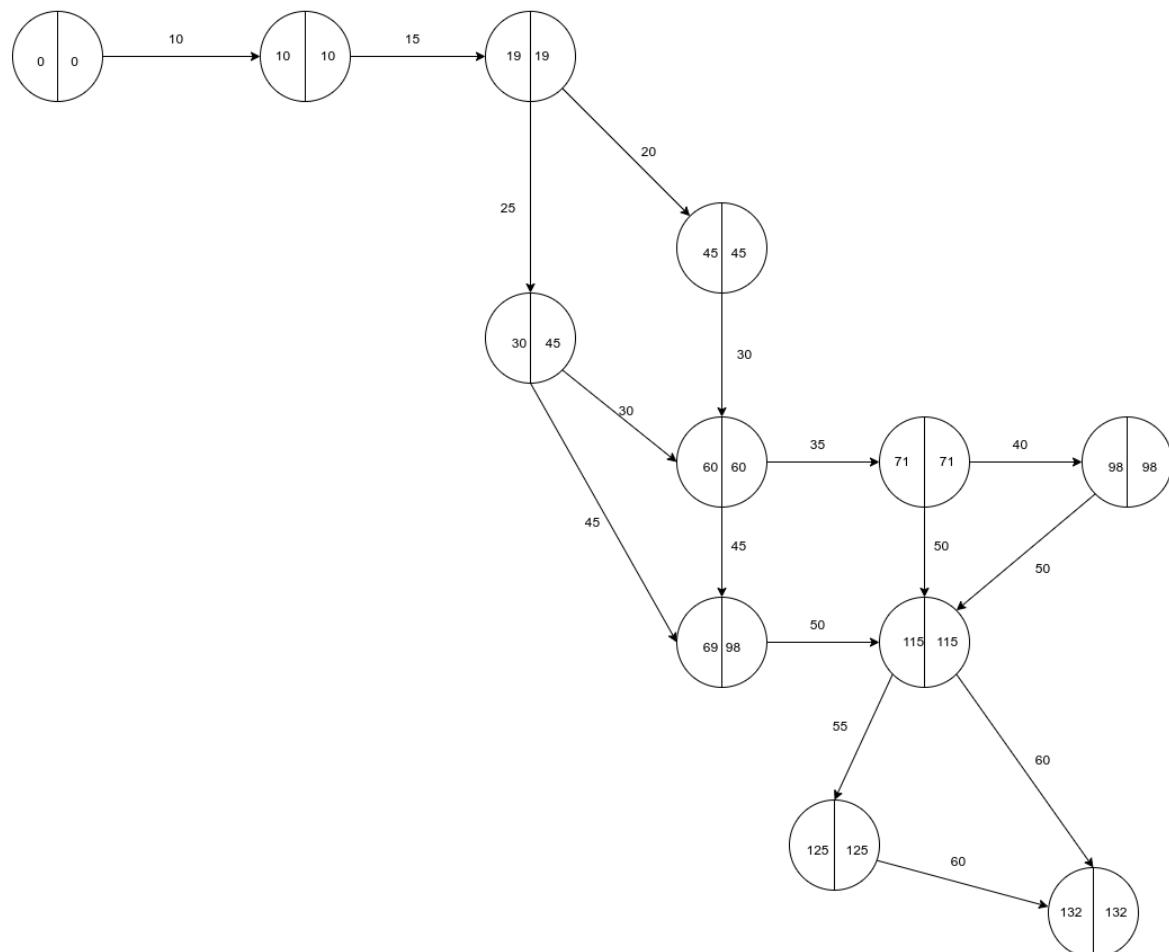
Network Analysis:

Nr	Activity	Duration (Days)	Dependencies
10	Proposed topic for project	10	-
15	Project Description	9	10
20	Sketch Designs	26	15
25	Requirements (Functional, Non-functional, Domain)	11	15
30	User scenarios Use cases	15	20, 25
35	Activity Diagram State Diagrams Data Flow Diagram Entity Relation Diagram Sequence Diagrams	11	30

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	Collaboration Diagrams		
40	Class Diagram Object Diagram Component Diagram Deployment Diagram	27	35
45	Detailed Design	9	25,30
50	Programming	17	35, 40, 45
55	Testing	10	50
60	Installation	7	50,55

Networks:



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A Gantt chart illustrating the timeline for various activities. The horizontal axis represents time, with major tick marks at 10, 19, 45, 30, 60, 71, 98, 69, 115, 125, and 132. The vertical axis lists activities from 10 at the top to 60 at the bottom. Each activity is represented by a gray bar indicating its duration and timing.

Activity	Start Time	End Time
10	0	10
15	10	24
20	24	45
25	45	58
30	58	68
35	68	75
40	75	82
45	82	90
50	90	98
55	98	105
60	105	112

7. Appendix

7.1 Appendix A - Definitions, Acronyms and Abbreviations.

AD_## - Activity Diagram followed by a number

CD – Class Diagram

CoD – Component Diagram

ColD_## – Collaboration Diagram followed by a number

DD – Deployment Diagram

DFD_## - Data Flow Diagram followed by a number

ERD – Entity Relation Diagram

FR_## - Functional Requirement followed by a number

OD – Object Diagram

PDF – Portable Document Format

PS – Print Screens

SD_## - State Diagram followed by a number

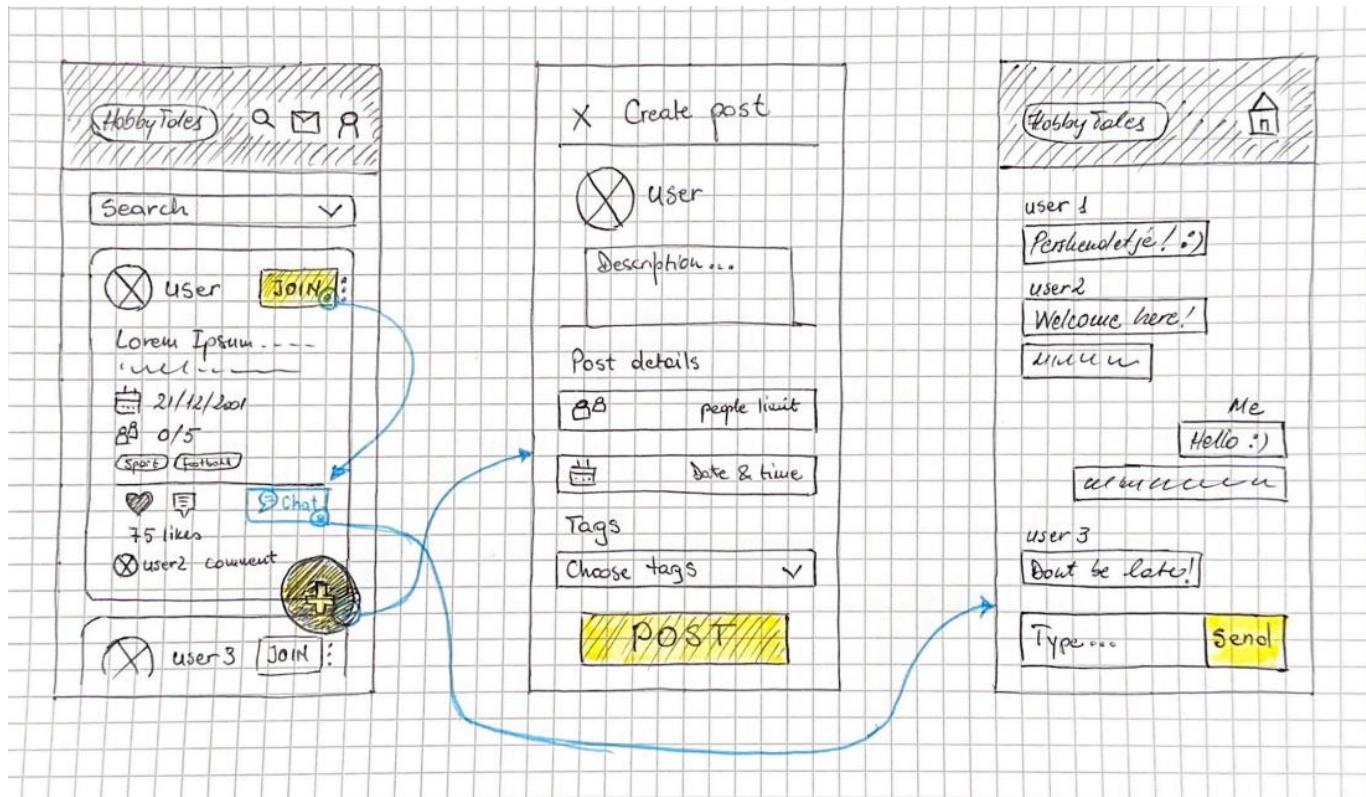
Sqd_## - Sequence Diagram followed by a number

UC_## - Use Case followed by a number

UI – User Interface

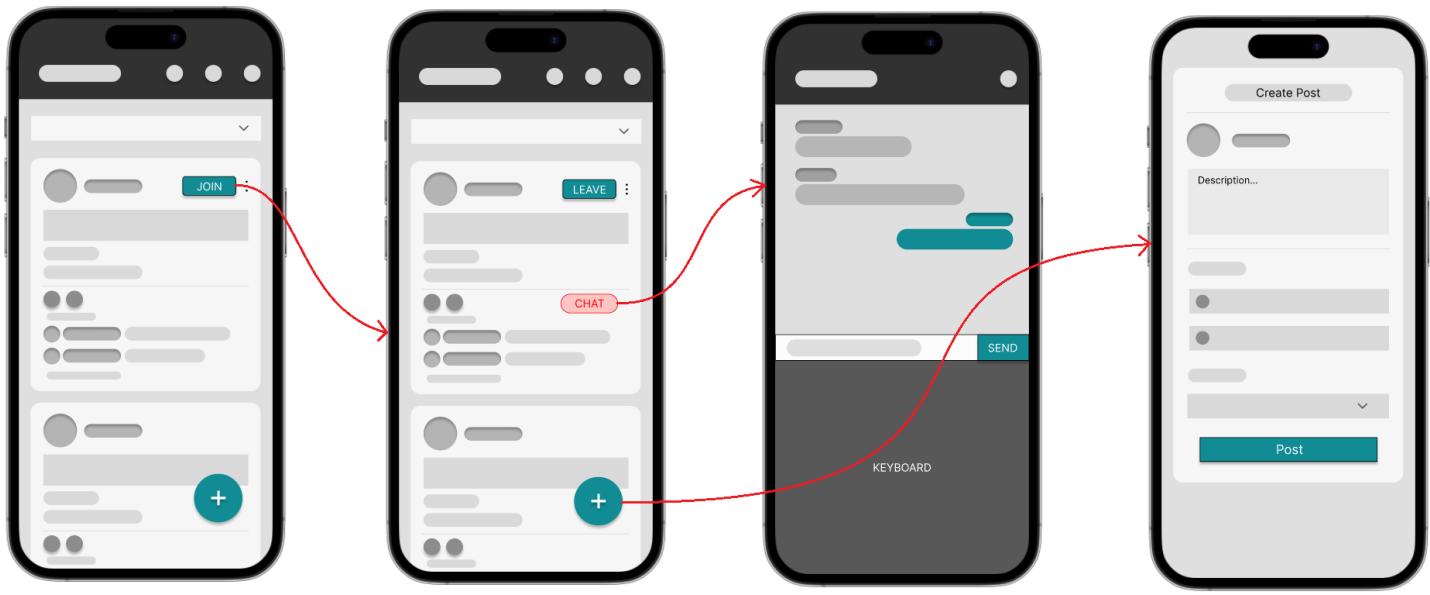
US_## - User Scenario followed by a number

6.2 Appendix D - Sketches and UI design

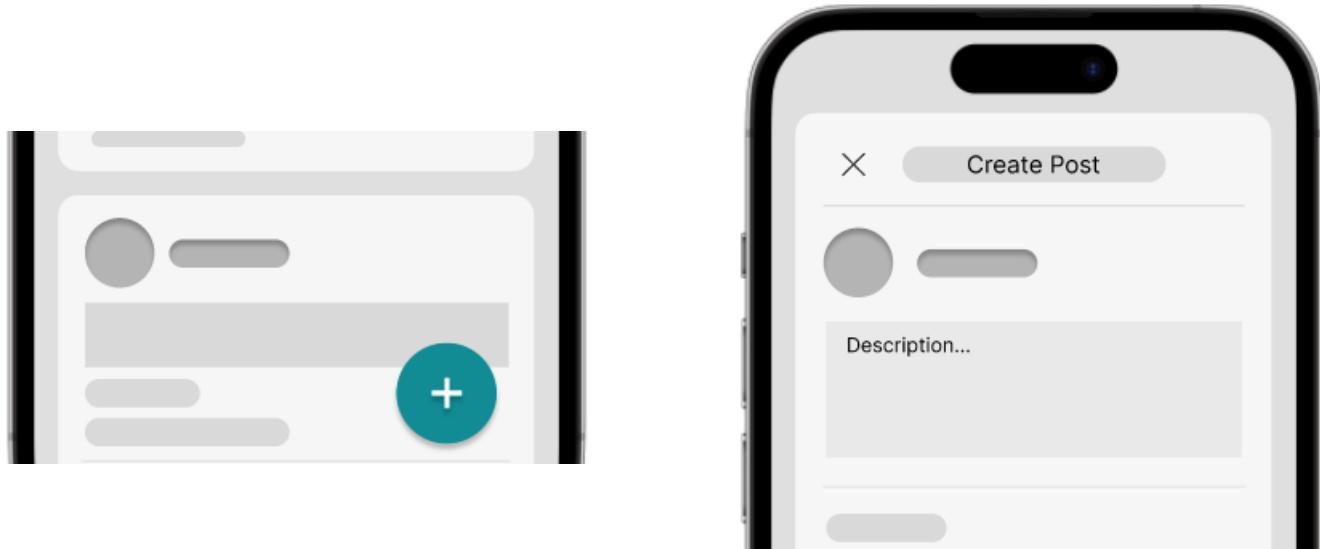


Sketch. The initial post and chat appearance after joining

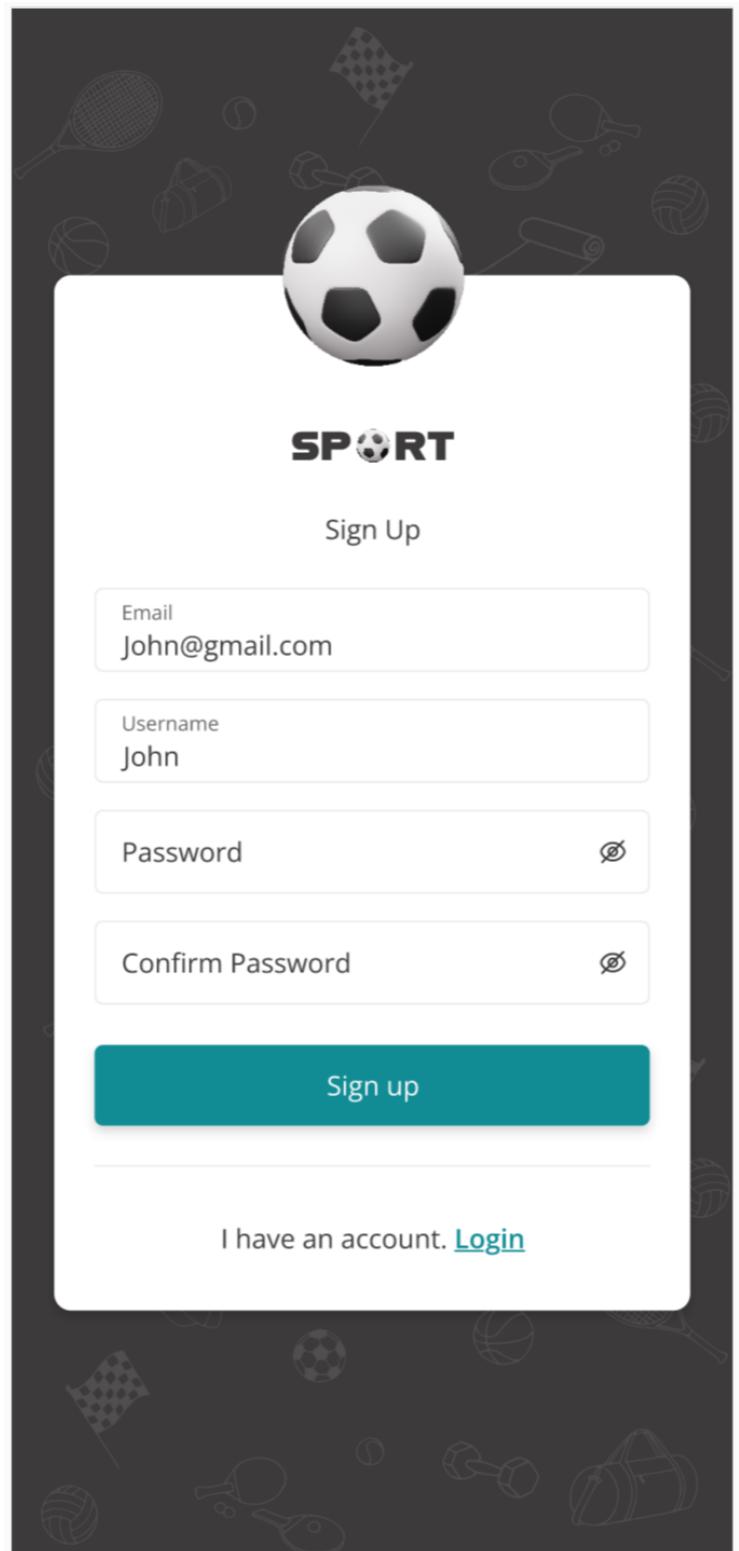
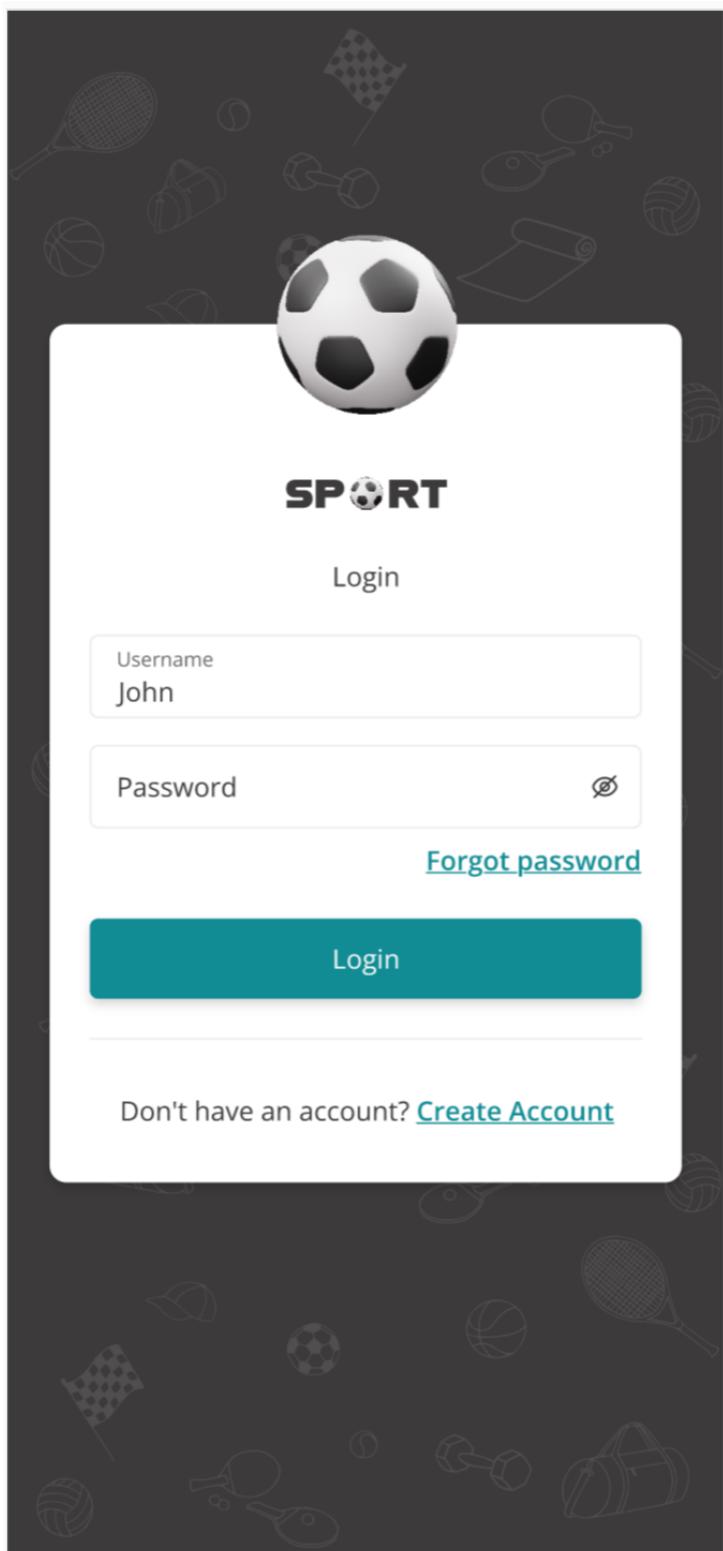
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UI Design 1. Post and chat appearance after joining



UI Design 2. Post creation



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SPORT

Search Tags

Hinata 1 hour ago

Text Text

15/09/2022 15:00

0/5

football football football

Heart Comment

Hinata 1 hour ago

Text Text

15/09/2022 15:00

0/5

football football football

Heart Comment

12 Likes

Show all 12 comments

Naruto 1 hour ago

Completed

Text Text

15/09/2022 15:00

5/5

football football football

Heart Comment

+ Create Post

Create Post

X Hinata

What's on your mind?

Post Details

People limit 5

Date & Time 15/09/2022 15:00

Tags

Choose Tags

football Other tag Other tag tag Tags

Post

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← Hinata

20 Followers 12 Following

Smth for my Bio here.

JOINED SINCE 1997

Edit Profile

5 posts

 Hinata 1 hour ago

Join · · ·

Text Text

15/09/2022 15:00

0/5

football football football

Heart Comment

 Hinata 1 hour ago

Join · · ·

Text Text

15/09/2022 15:00

0/5

football football football

Heart Comment

12 Likes

Show all 12 comments

+ 

X Edit Profile



Change profile photo

Username
Hinata

Bio
Smth for my Bio here.

Save

HobbyTales
Documentation

← SPORT

Hinata
1 hour ago

Text Text

📅 15/09/2022 15:00

👤 0/5

football football football

Heart Comment 12 Likes

Comments

👤 Hinata Commenting here
1 hour ago

Comment Post

← Naruto

Naruto
20 Followers
12 Following

Smth for my Bio here.
JOINED SINCE 1997

+ Follow

5 posts

👤 Naruto Completed
1 hour ago

Text Text

📅 15/09/2022 15:00

👤 5/5

football football football

Heart Comment 12 Likes

👤 Hinata Commenting here
Show all 12 comments

UI Design. All the Initial UI Designs