İZMİR UNIVERSITY OF ECONOMICS

Point of View 5

SE 321/305 – Software Specification and Design
Term Project Design Document

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1. Introduction

"If ones who went the way and ones who are about to go sat down for a conversation, the amount of purposeless roads traveled would be halved"

Point of View is an application to connect people struggling with different psychological/daily life matters with people who have experience with them, sharing valuable advice, motivation and ways of living through said matters of life. It's designed as a way of sharing experience with others, as a response to the ever increasing social isolation of today, preventing experience from flowing between people and sometimes making them subject to the same hurdles of life that could have been avoided otherwise.

For example, a 20-year-old who realizes, in the sophomore year, that he doesn't enjoy this department he's studying anymore, and is looking for advice for this matter. A 45-year-old person who has been through this situation in his time and managed to pull through contacts through this application, and helps him with his own experience. The older person advises the young one on the process, and provides important knowledge on what may happen if he switches departments - something that person wouldn't be able to learn without stepping in blindly and facing the consequences. With this knowledge, the 20-year-old now knows what lies ahead, and makes his decision in a much more educated manner instead.

2. Problem Definition

The problem defined here is the increasing rates of social isolation and the lack of a platform for intergenerational sharing of wisdom and experiences. People often face life's hurdles without sufficient guidance, leading to repeated mistakes and hardships that could have been avoided with insights from those who have already navigated similar paths. This issue is particularly acute in the context of life-changing decisions and mental health struggles where the right advice can significantly alter outcomes.

The motivation to address this issue stems from a desire to bridge the experiential gap between generations and individuals, creating a supportive community that leverages personal histories for collective benefit. It's about creating a space where shared knowledge leads to more informed decision-making and reduces the psychological and practical burdens of facing life's challenges alone. By doing so, the project seeks to empower individuals, enhance well-being, and foster a more connected society.

3. Proposed System Design

3.1. Requirements

3.1.1. Functional requirements:

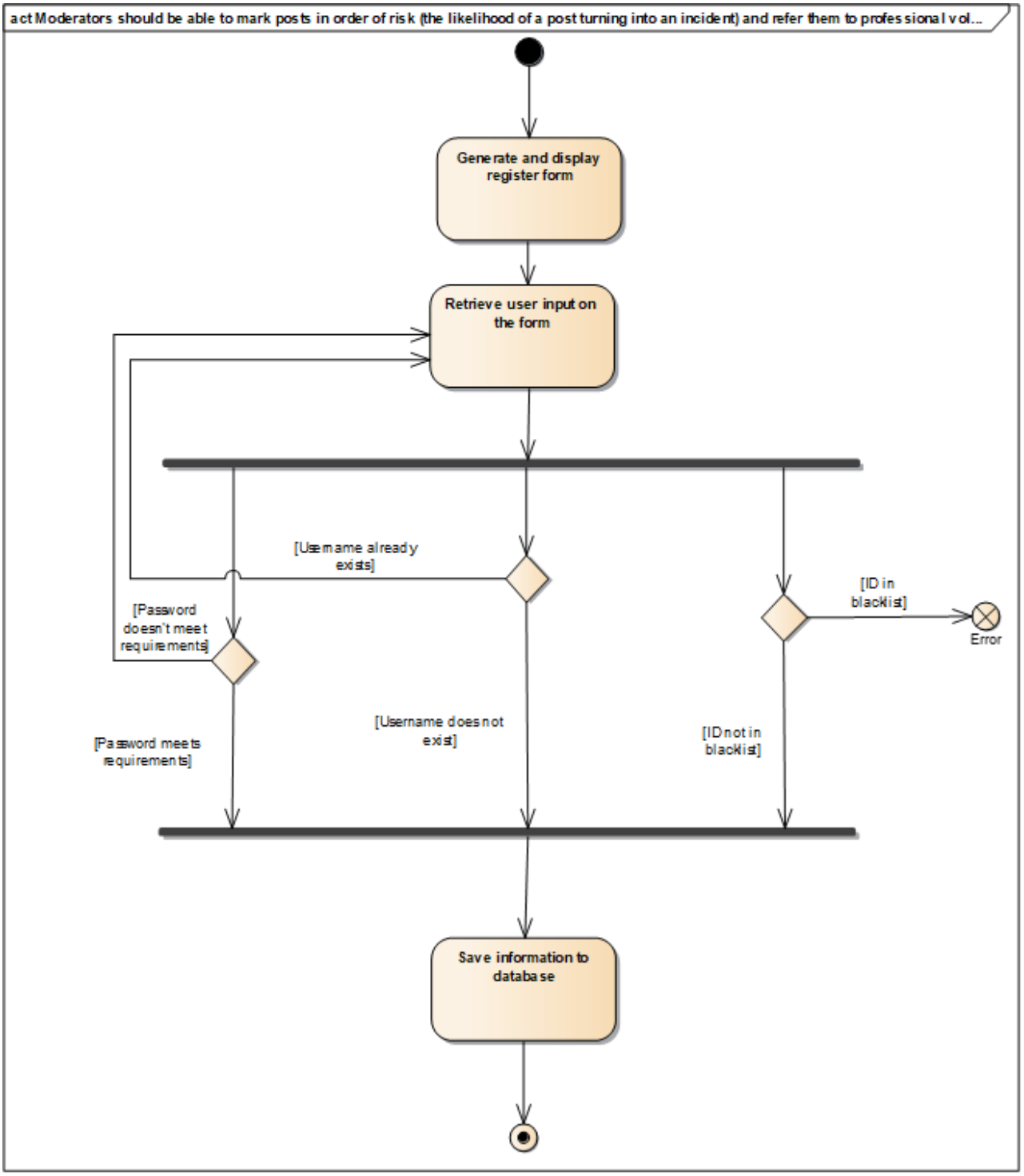
1. To create an account, users must enter their personal information (name, age, gender, ID number) and username. Users' personal information will be stored anonymously.
2. Users should be able to create posts with message/attachment contents to the system.
3. When a user wants to create a post, the system should provide a template by category. This template should include category-specific fields as well as a date element, a check box indicating the urgency of the situation, and a title/description field.
4. The system should be able to store user information and moderator information (login, profile etc.) in AWS DB.
5. The system should be able to display posts divided by category.
6. The system must allow moderators to moderate posts (view, lock, delete) and users (mute, kick, warn). Professional volunteers select those who will be banned among those who are kicked.
7. Moderators should be able to mark posts in order of risk (the likelihood of a post turning into an incident) and refer them to professional volunteers.
8. Professional volunteers should be able to provide professional intervention for users in the system.
9. The system should have a section where moderators and professional volunteers can upload their certificates and fill in their personal skills. Users should be able to see the information of the moderators and professional volunteers who helped them. Moderators should not be able to see any user's information. If a moderator refers a user to a professional volunteer, the professional volunteer should be able to see the user's information.
10. Users should be able to comment on moderators who help them.
11. Professionals should review moderators' prompts, category checks, and moderator evaluation comments written by users to create an accuracy score about moderators.
12. The category control system and the moderator must ensure that each question is opened in the correct category.

3.1.2. Non-Functional Requirements:

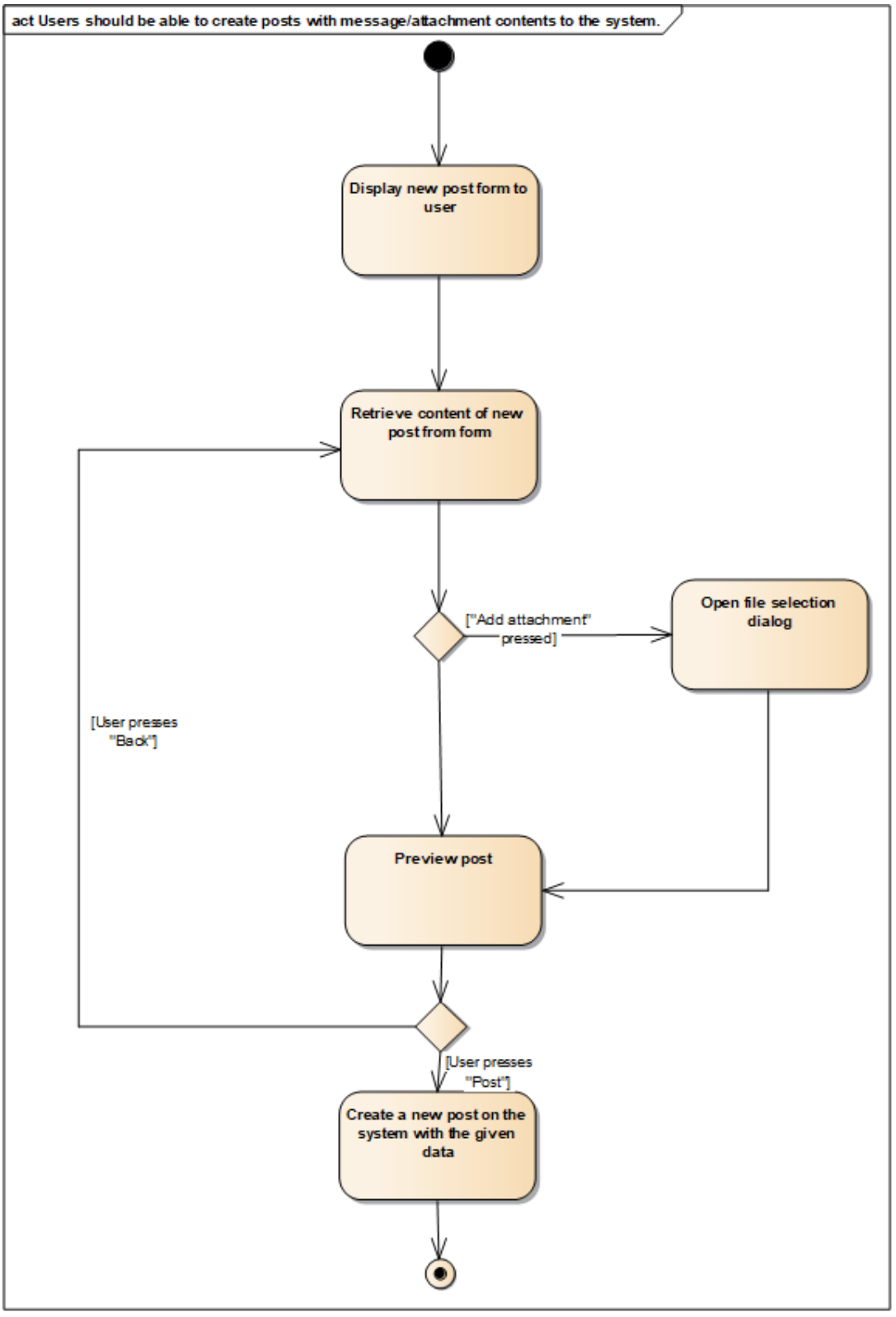
1. The system should support light and dark themes.
2. The system should (initially) support Turkish and English languages.
3. The system should use MySQL Community 8.2.0 as its database solution.
4. Posting to the forum should take less than 5 seconds, from pressing “Send” to redirection to the page of the created post.
5. The system should conform to legal age restrictions. Users below the age of 18 should be required to provide parental consent or be unable to access sensitive topics altogether.

3.2. Activity Diagrams

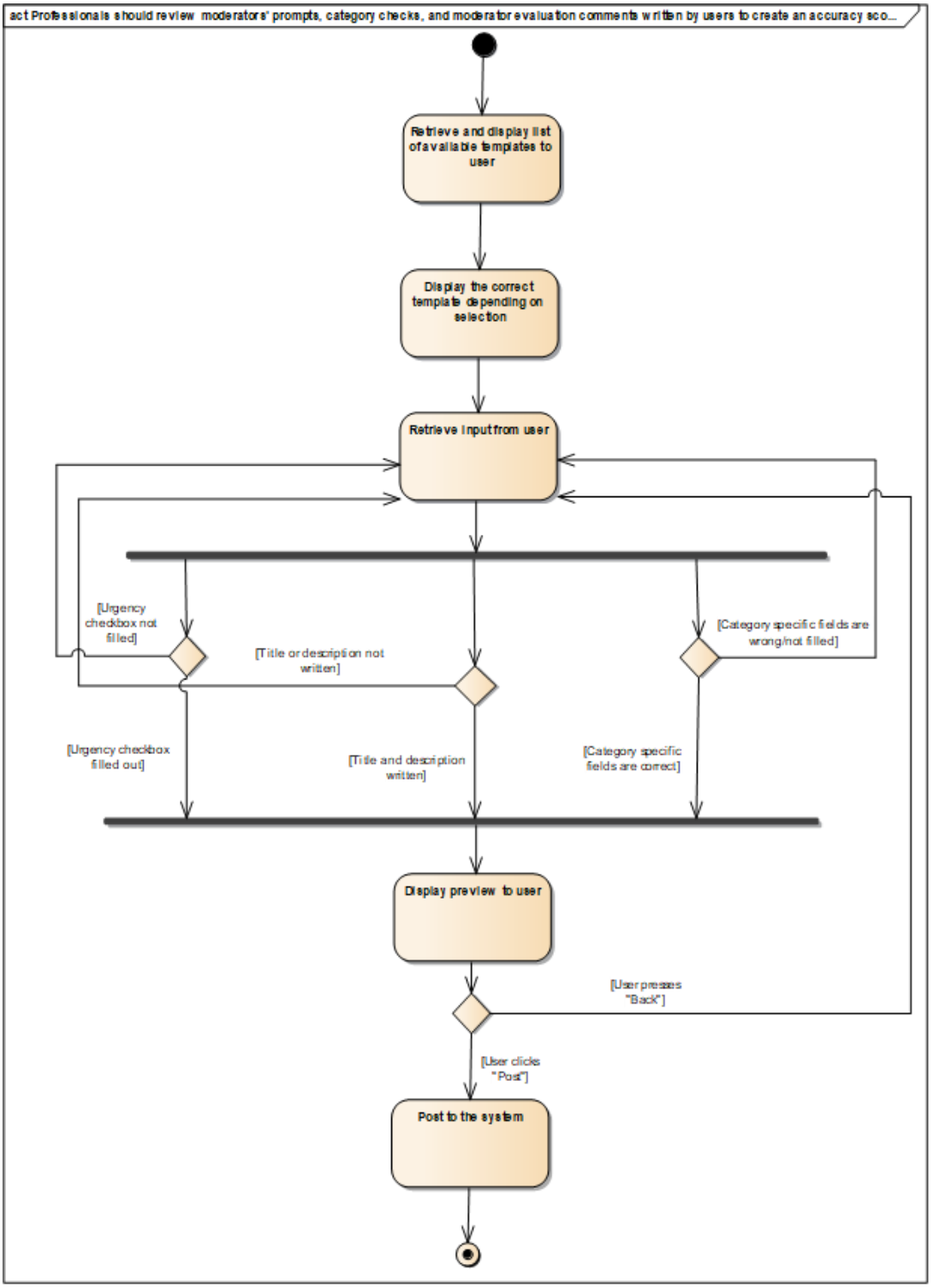
3.2.1. Activity Diagram 1: To create an account, users must enter their personal information (name, age, gender, ID number) and username. Users' personal information will be stored anonymously.



3.2.2. Activity Diagram 2: Users should be able to create posts with message/attachment contents to the system.



3.2.3. Activity Diagram 3: When a user wants to create a post, the system should provide a template by category. This template should include category-specific fields as well as a date element, a check box indicating the urgency of the situation, and a title/description field.



3.2.4. Activity Diagram 4: The system should be able to store user information and moderator information (login, profile etc.) in AWS DB.

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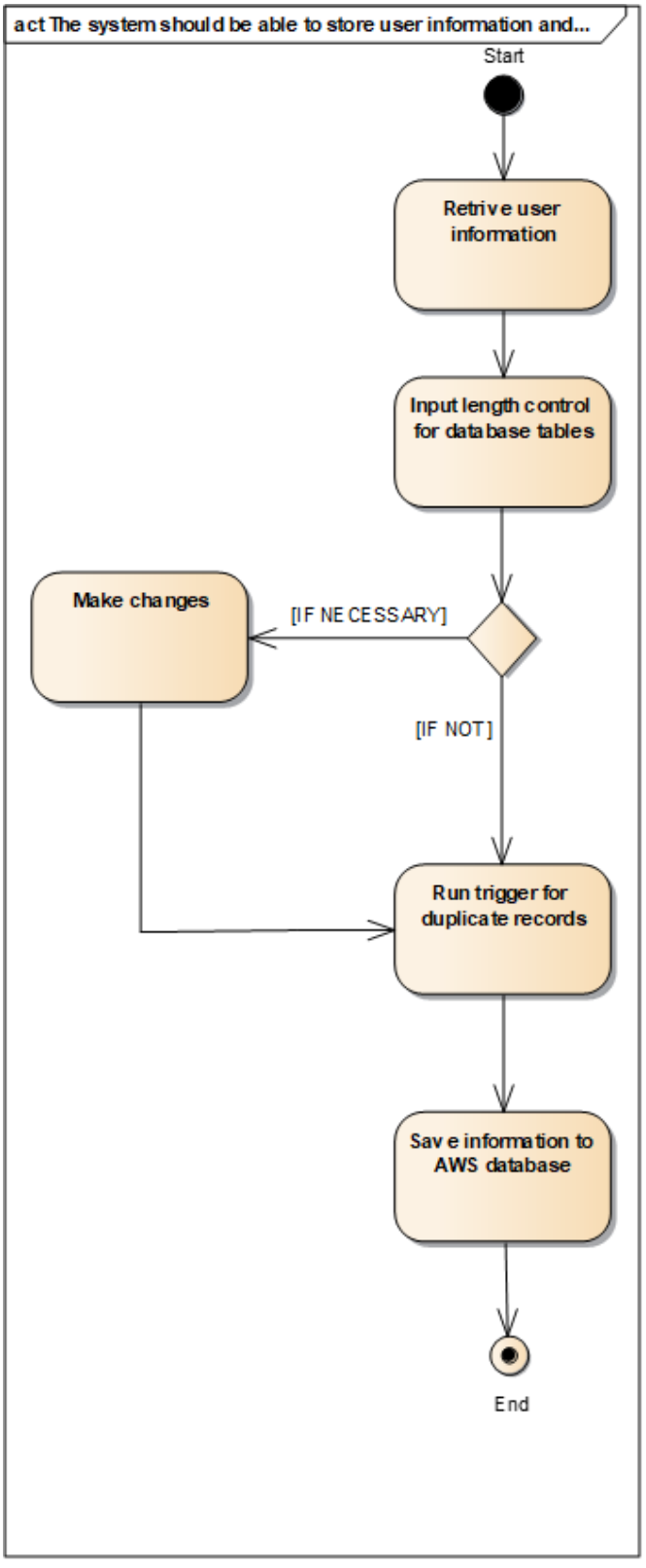
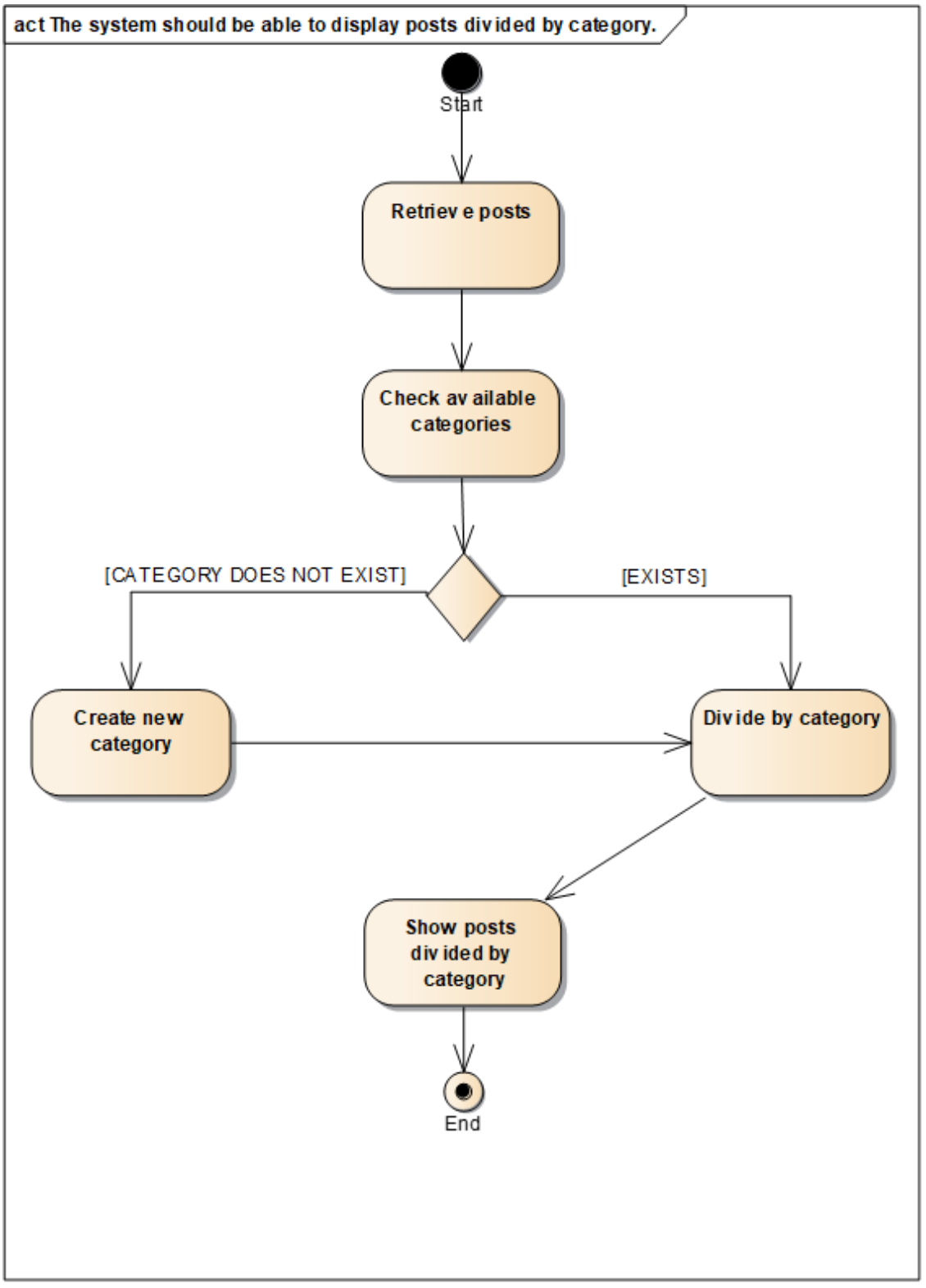
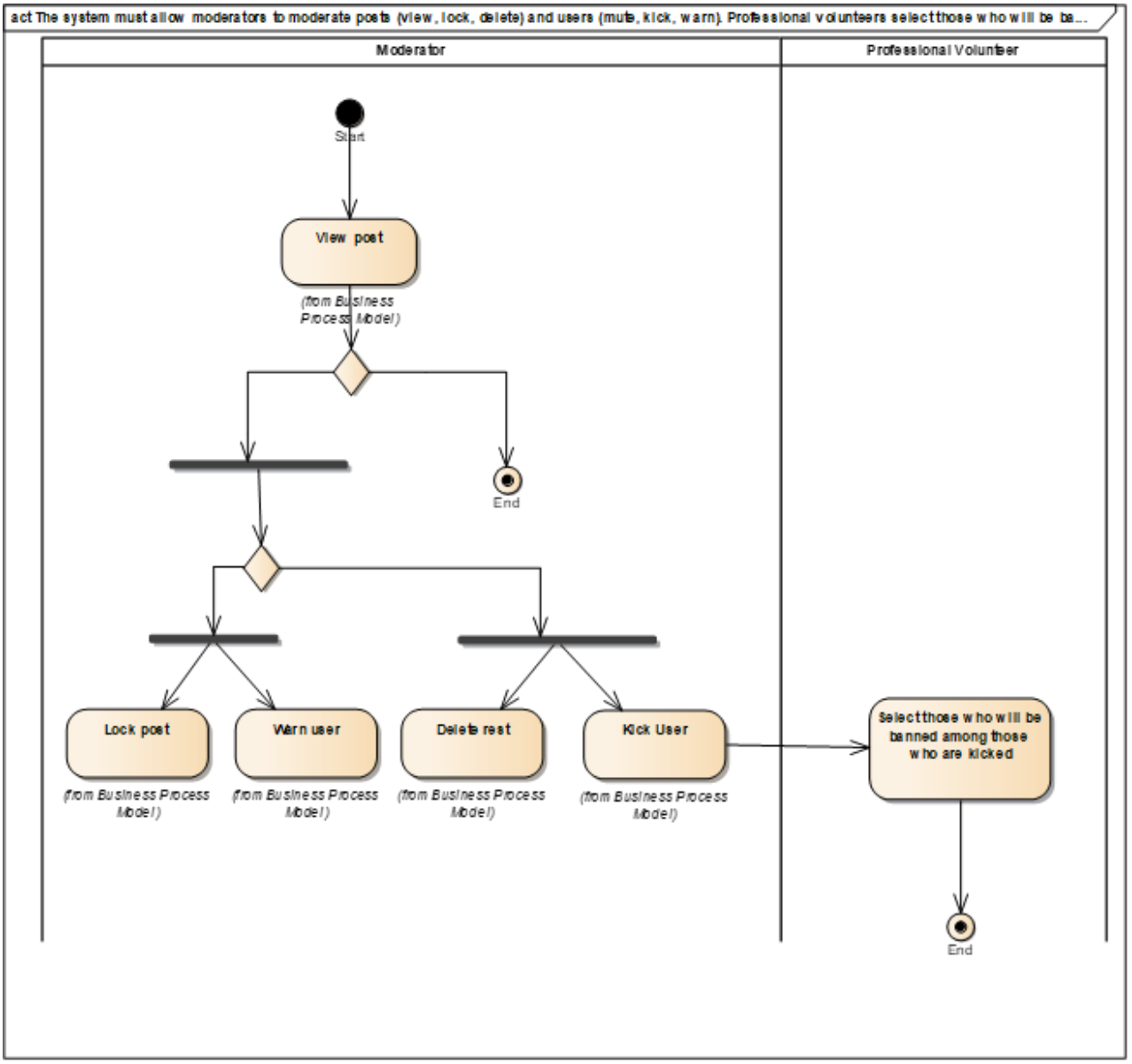


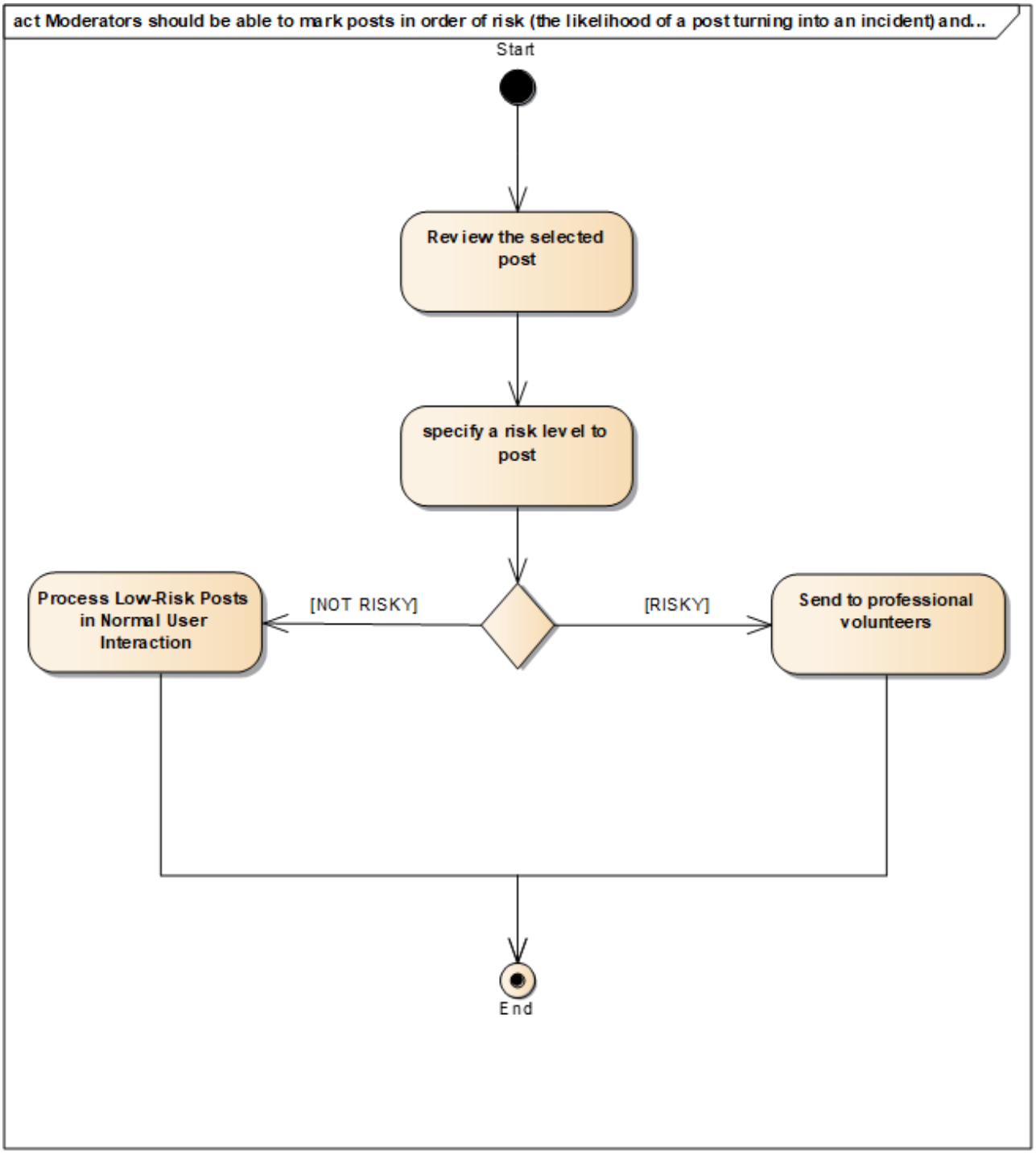
3.2.5. Activity Diagram 5: The system should be able to display posts divided by category.



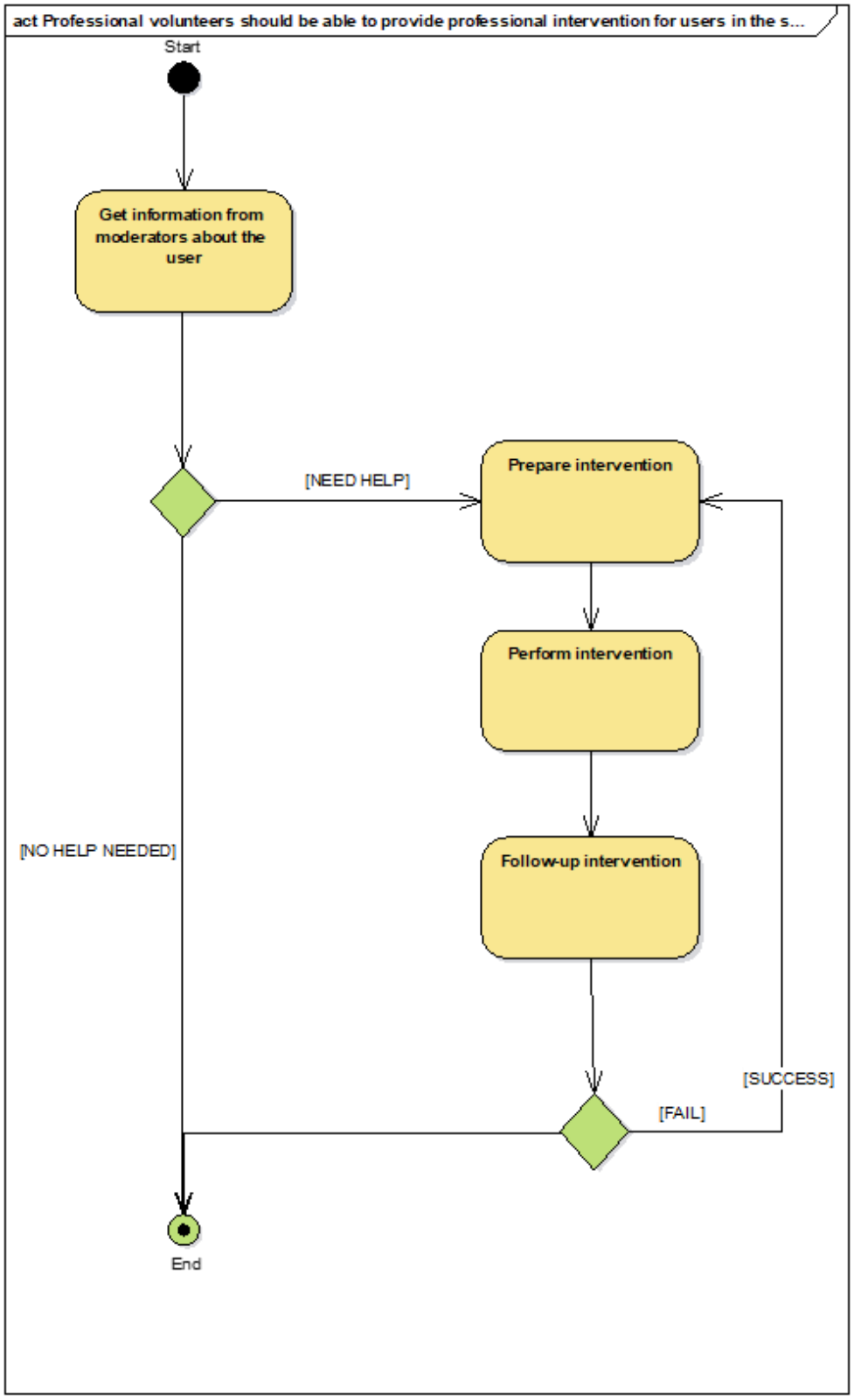
3.2.6. Activity Diagram 6: The system must allow moderators to moderate posts (view, lock, delete) and users (mute, kick, warn). Professional volunteers select those who will be banned among those who are kicked.



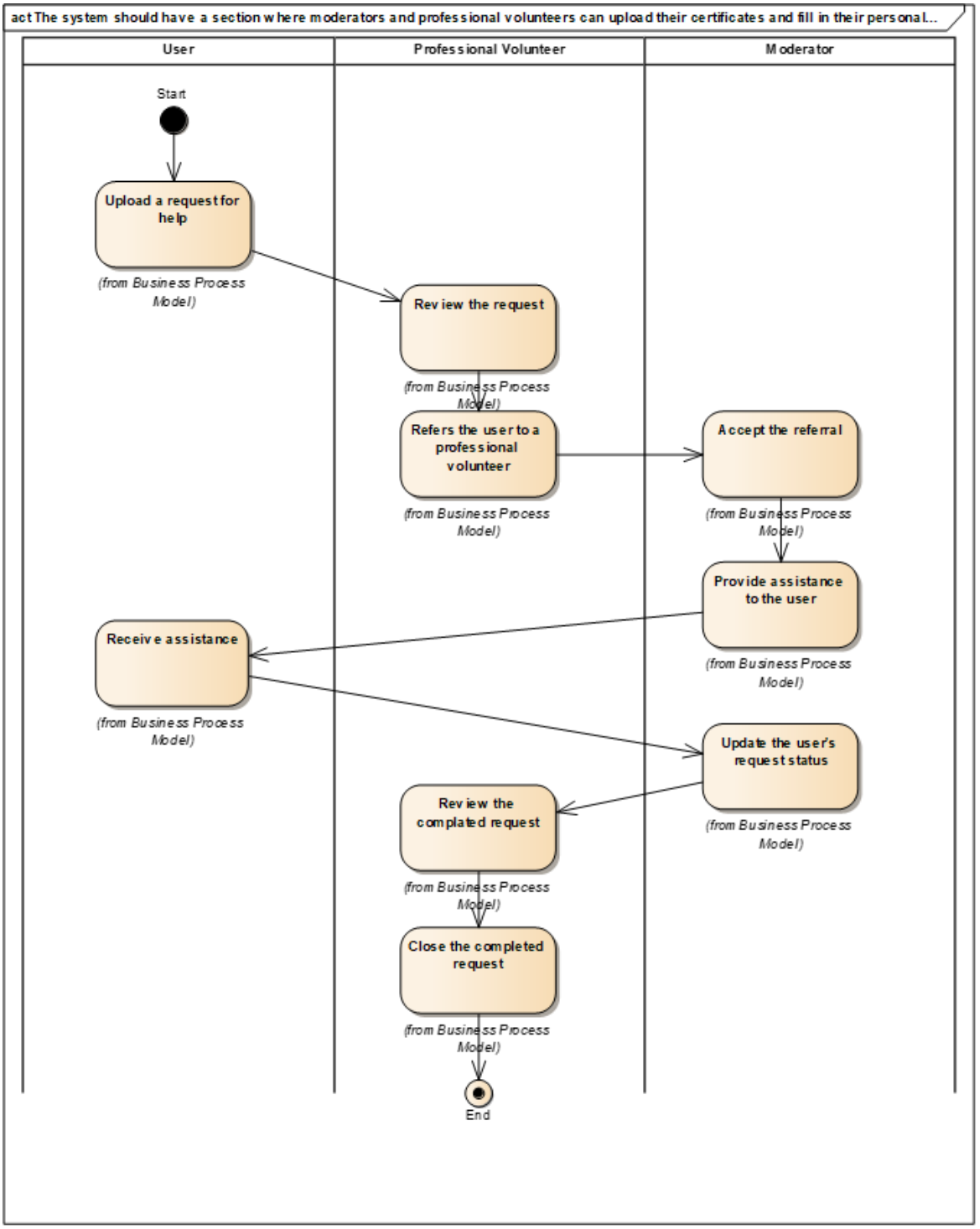
3.2.7. Activity Diagram 7: Moderators should be able to mark posts in order of risk (the likelihood of a post turning into an incident) and refer them to professional volunteers.



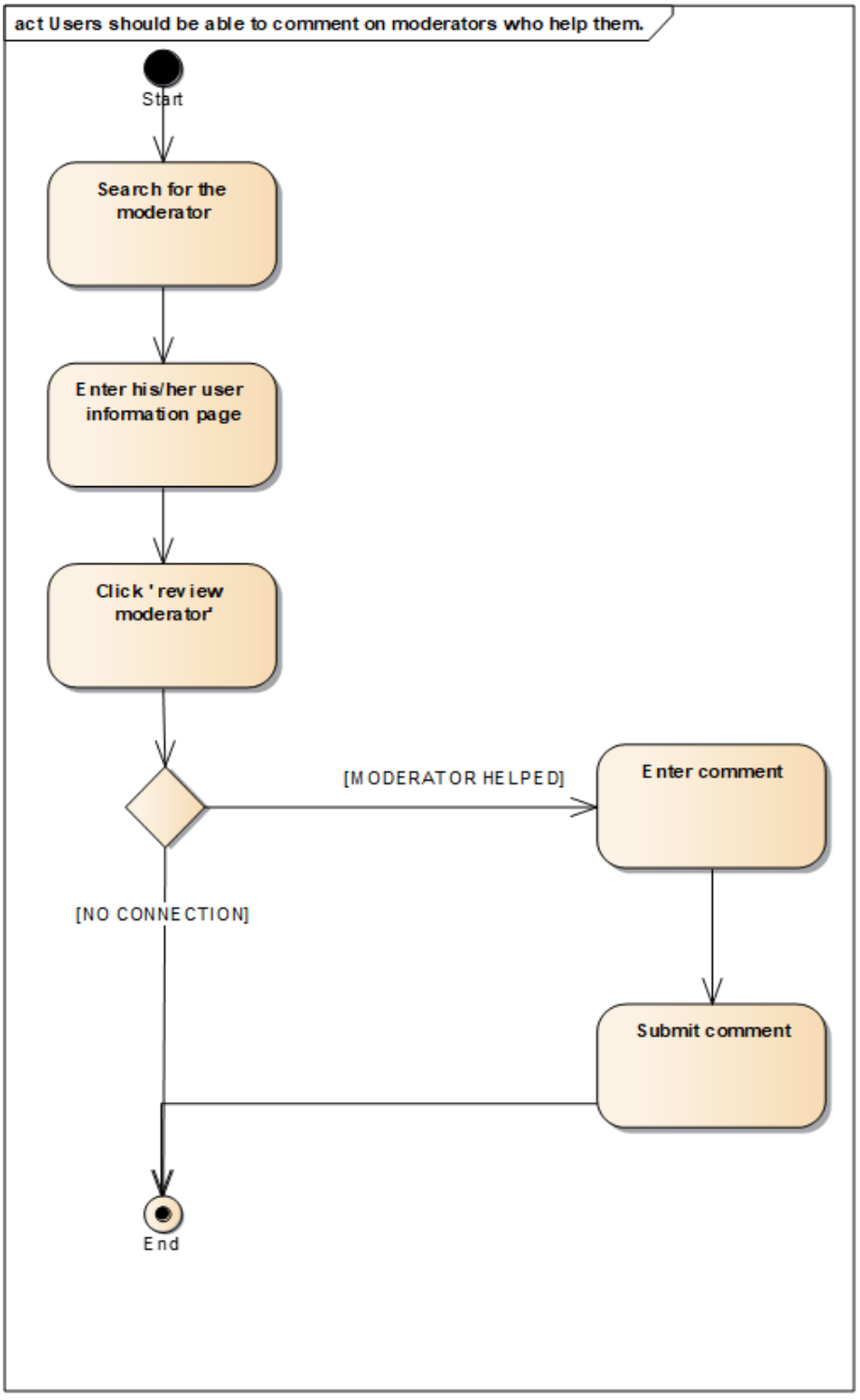
3.2.8. Activity Diagram 8: Professional volunteers should be able to provide professional intervention for users in the system.



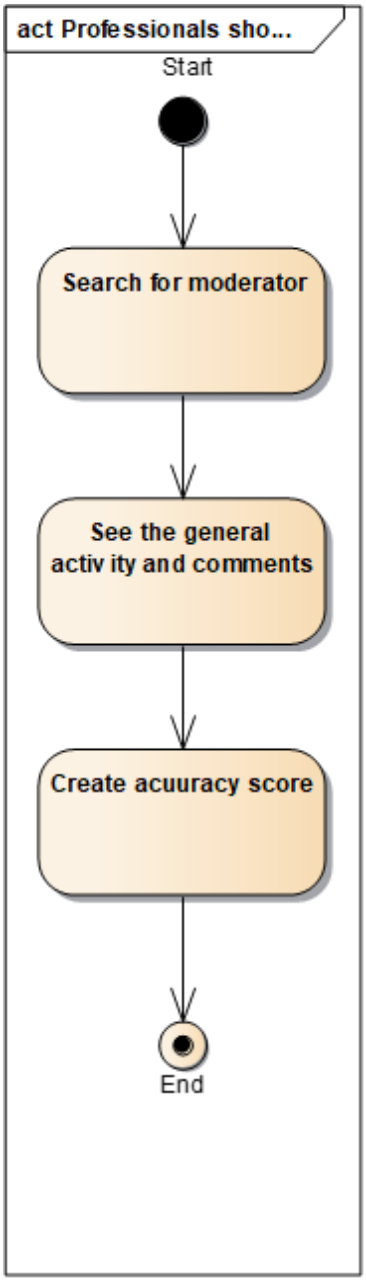
3.2.9. Activity Diagram 9: The system should have a section where moderators and professional volunteers can upload their certificates and fill in their personal skills. Users should be able to see the information of the moderators and professional volunteers who helped them.



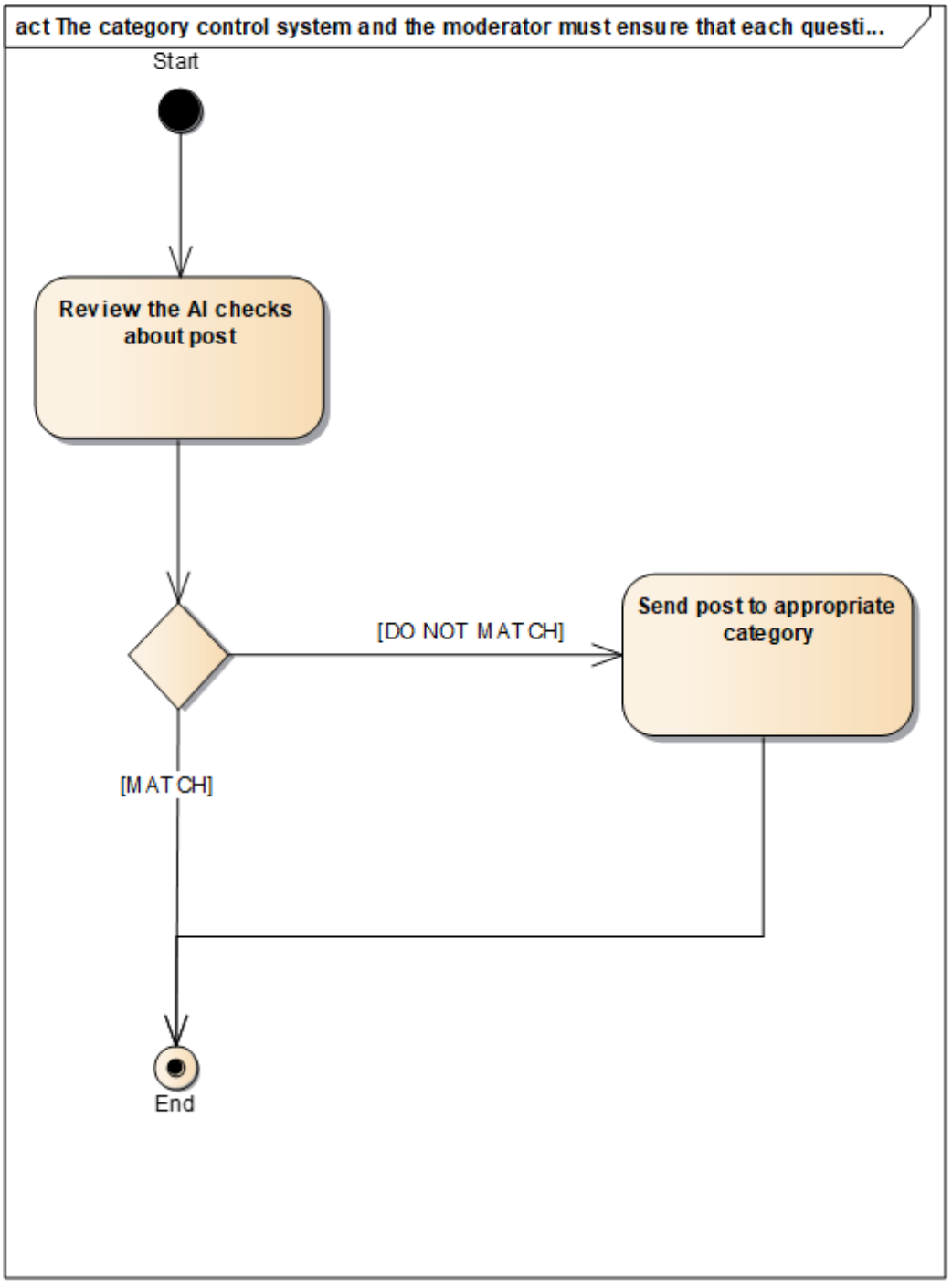
3.2.10. Activity Diagram 10: Users should be able to comment on moderators who help them.



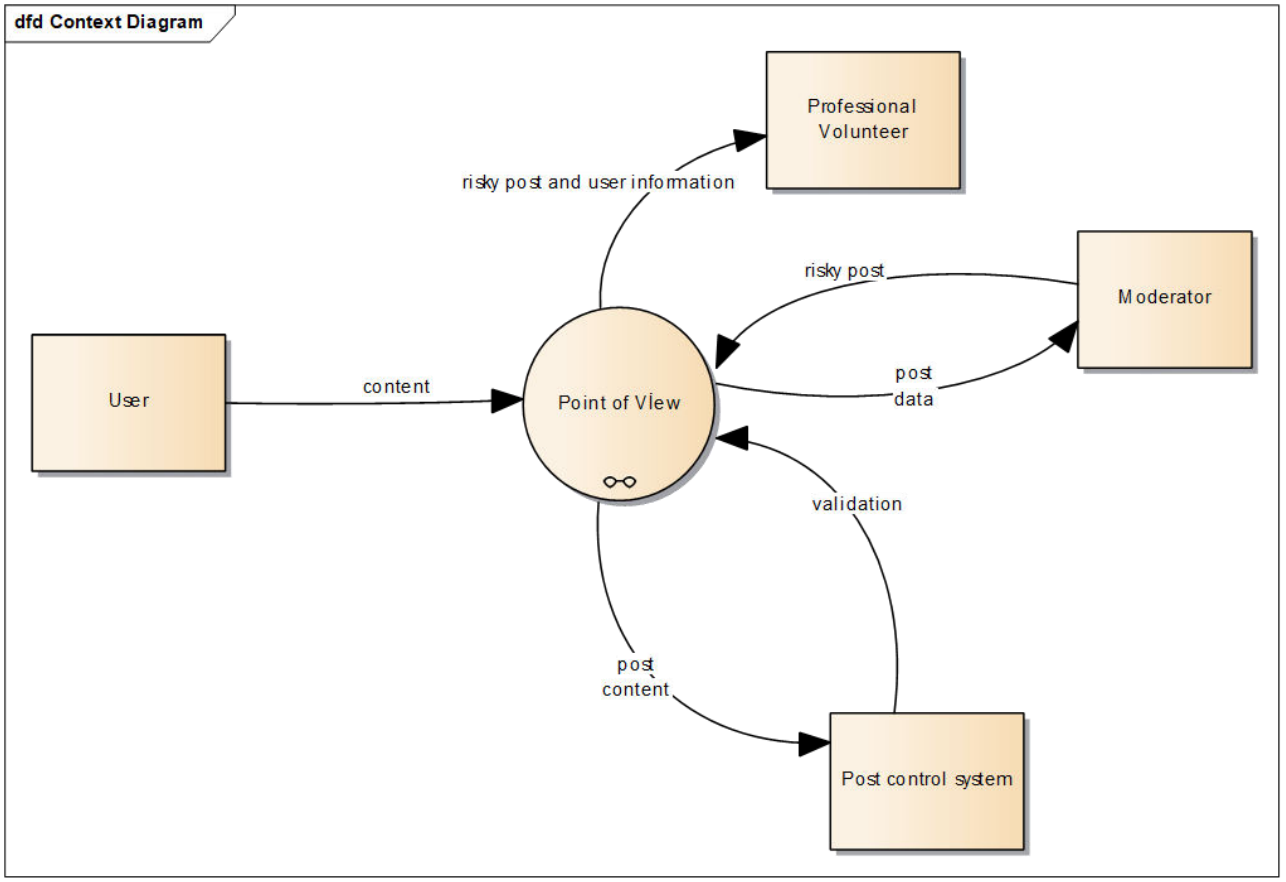
3.2.11. Activity Diagram 11: Professionals should review moderators' prompts, category checks, and moderator evaluation comments written by users to create an accuracy score about moderators.



3.2.12. Activity Diagram 12: The category control system and the moderator must ensure that each question is opened in the correct category.

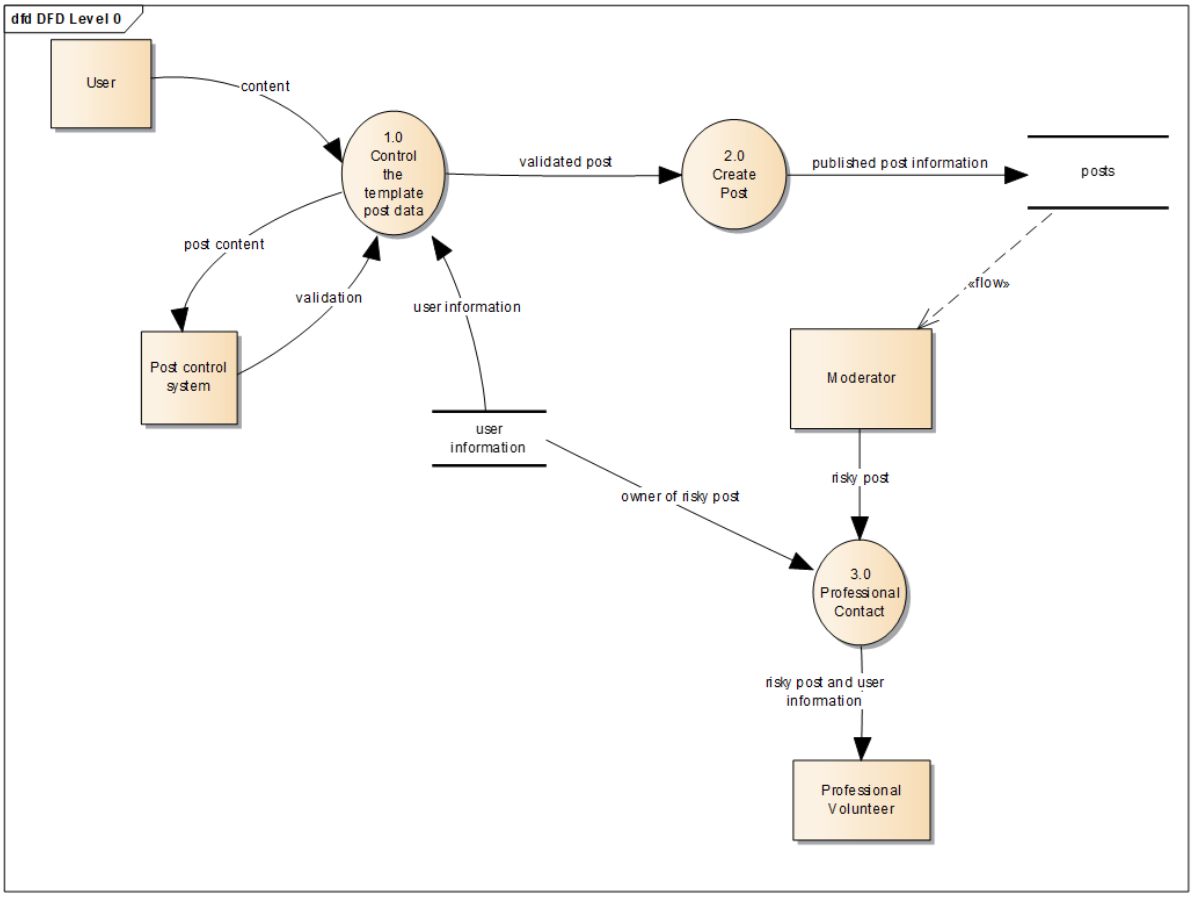


3.3. Context Model

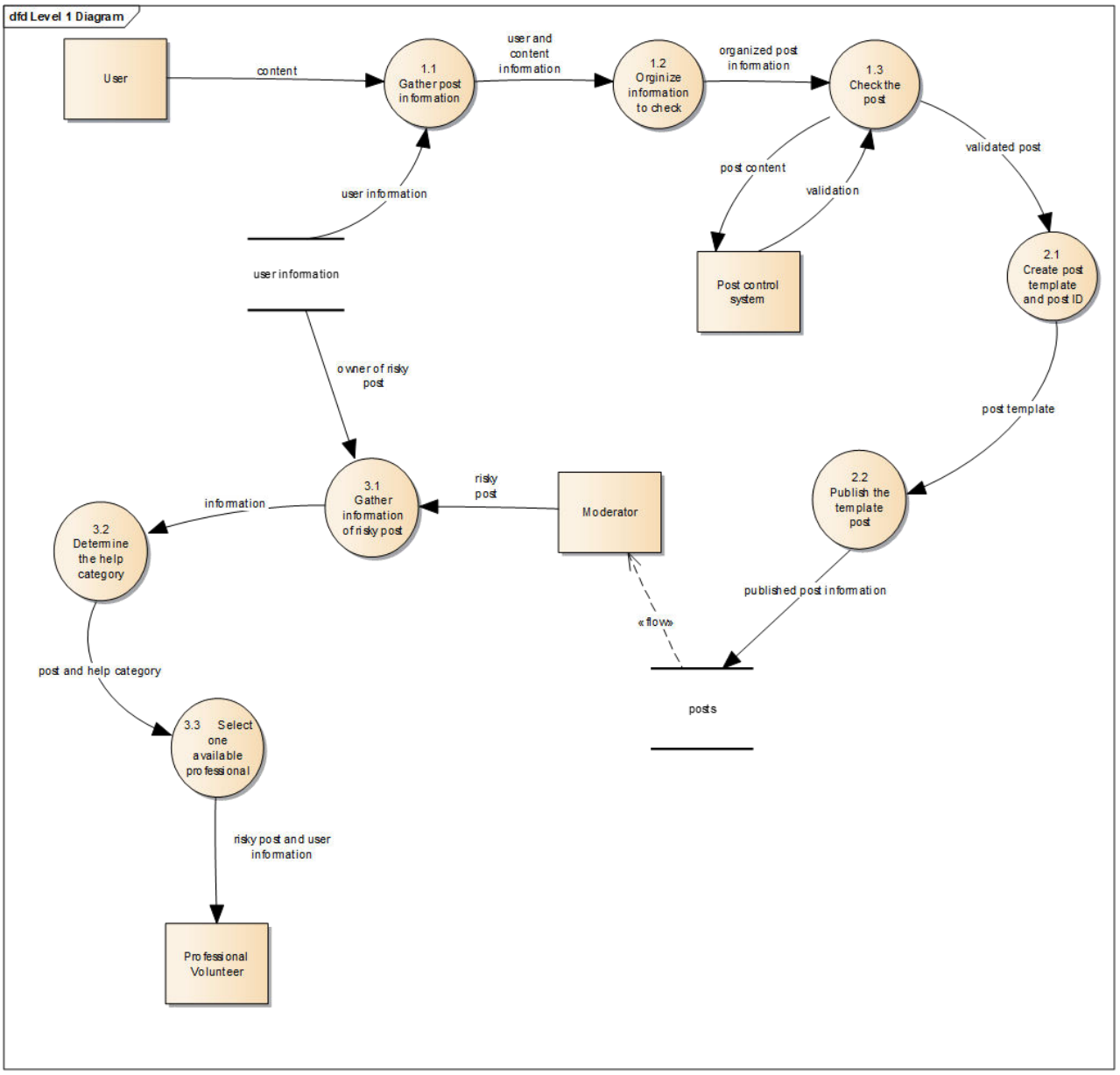


3.4. Data Flow Diagrams

3.4.1. DFD Level 0:

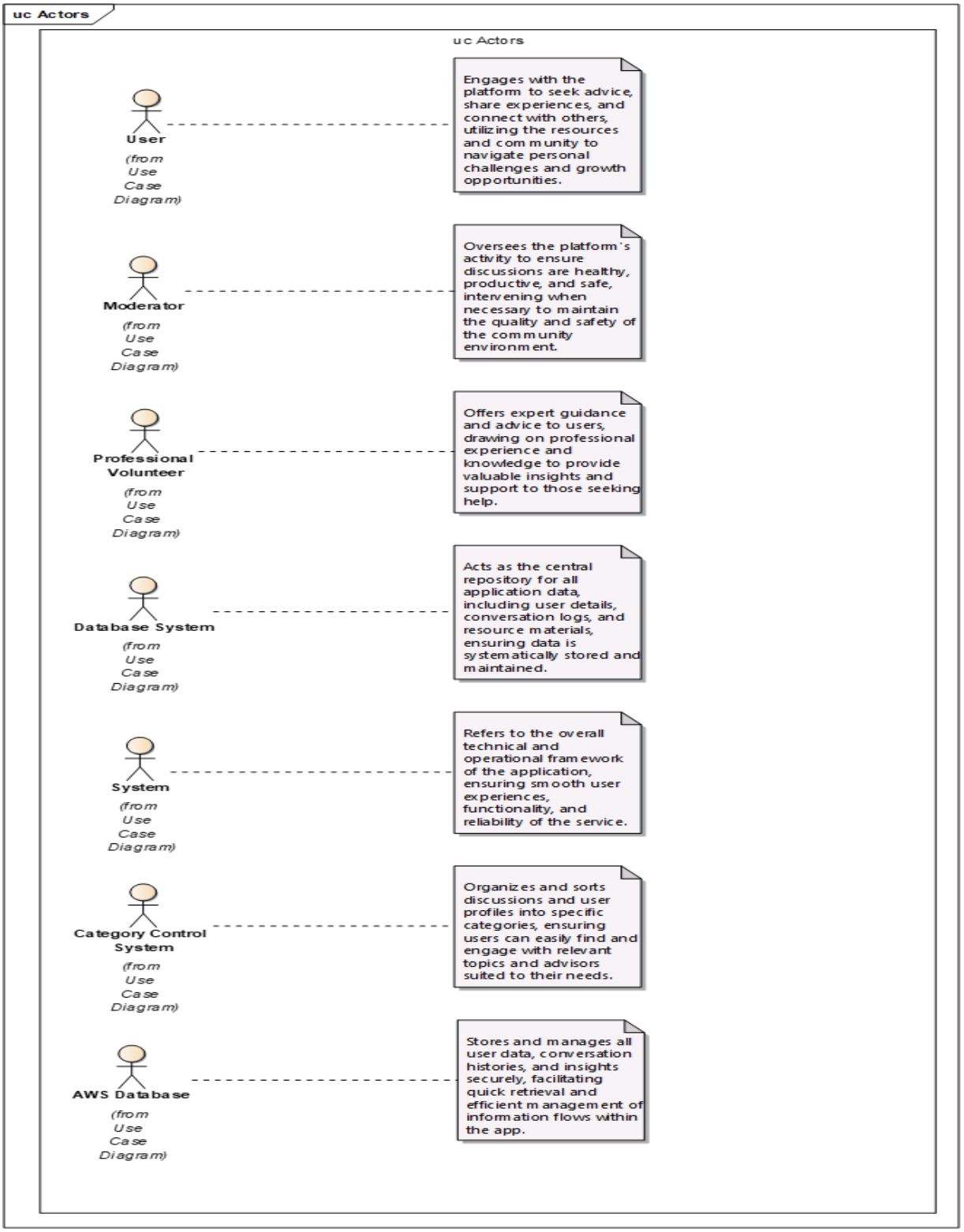


3.4.2. DFD Level 1:

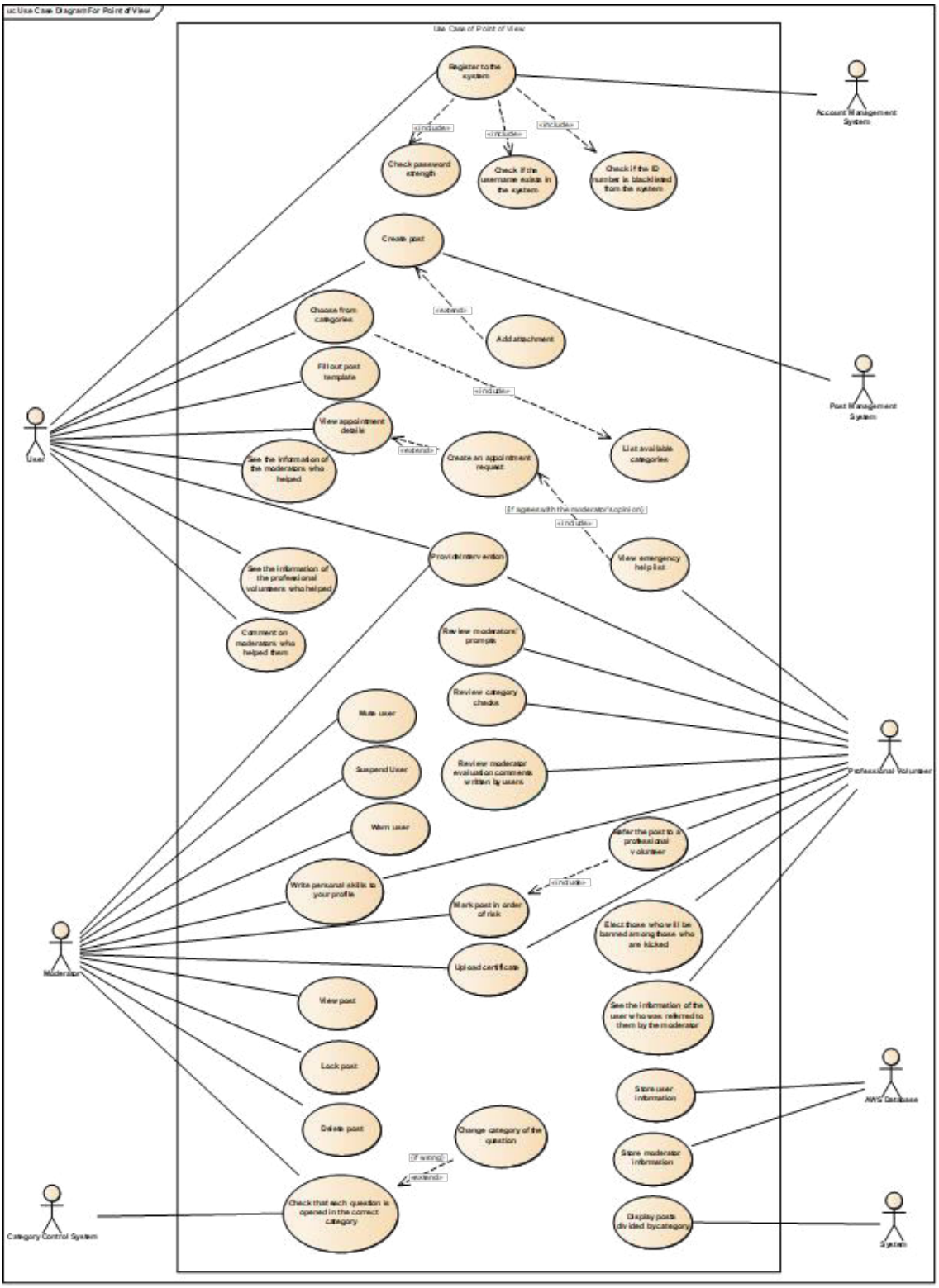


3.5. Use Cases

3.5.1. Actors

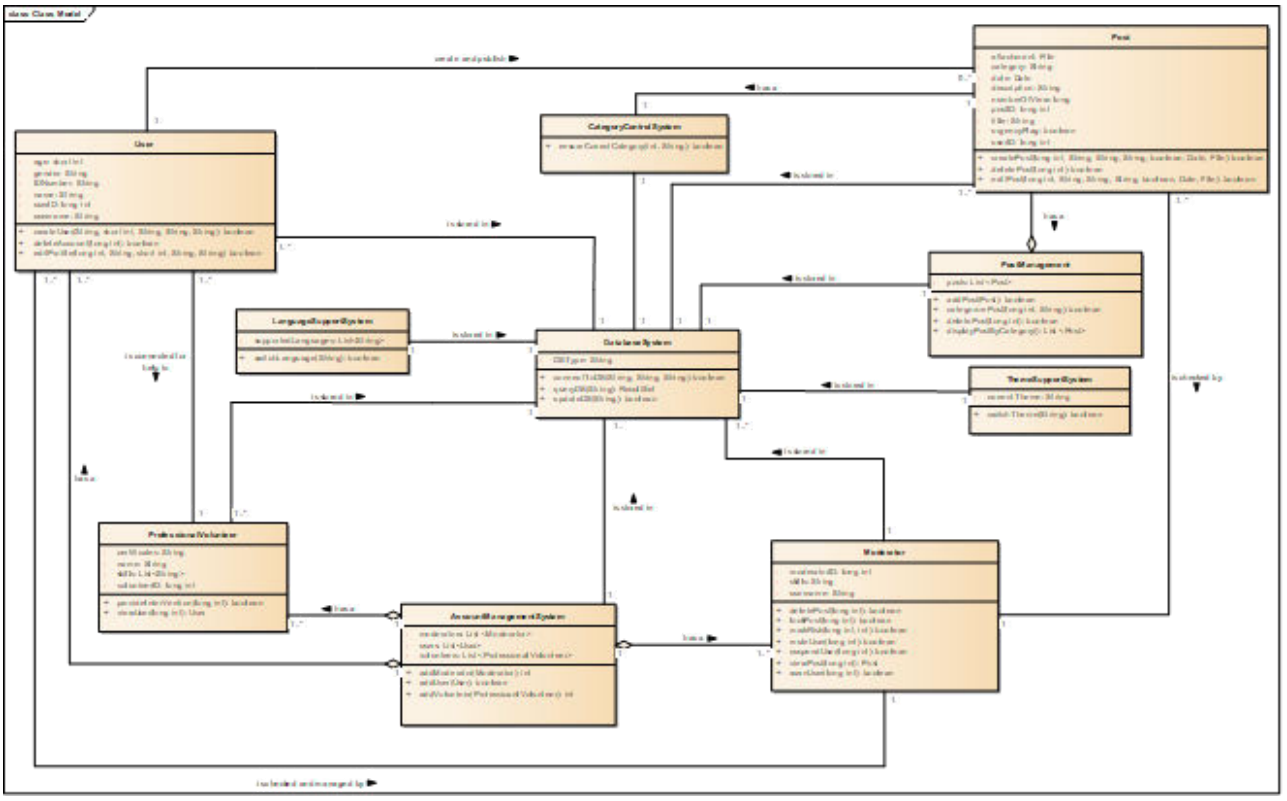


3.5.2. Use Case Diagrams



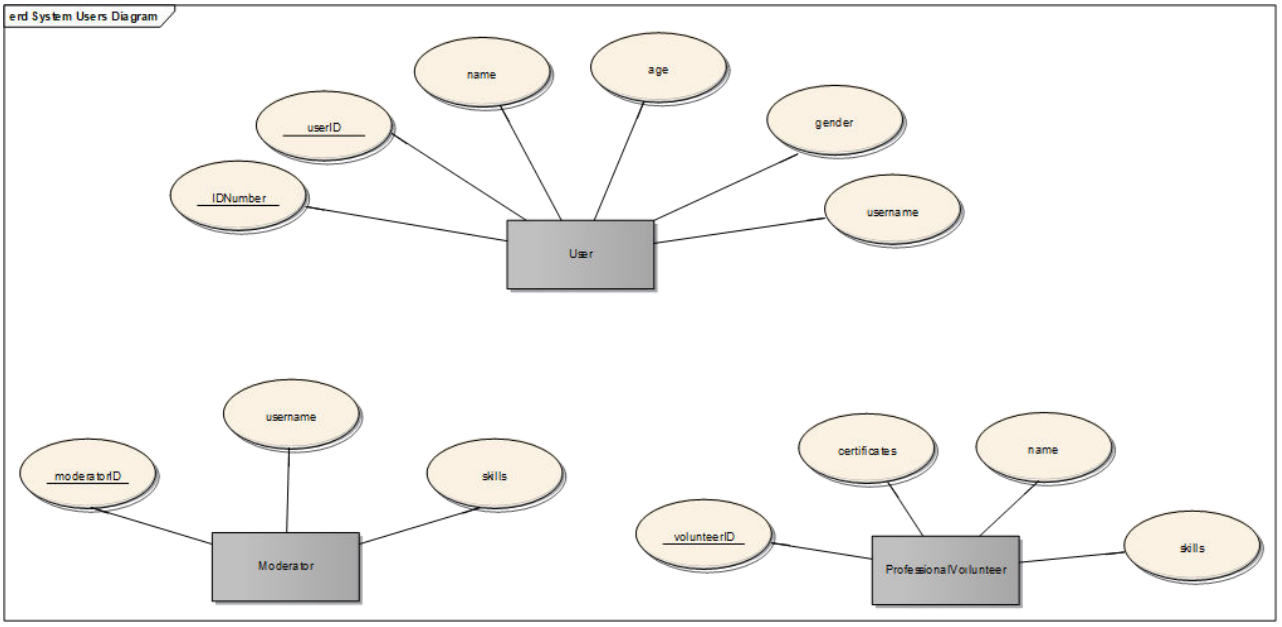
3.6. Class Diagrams

3.6.1. Class Diagram 1: System's Whole Diagram

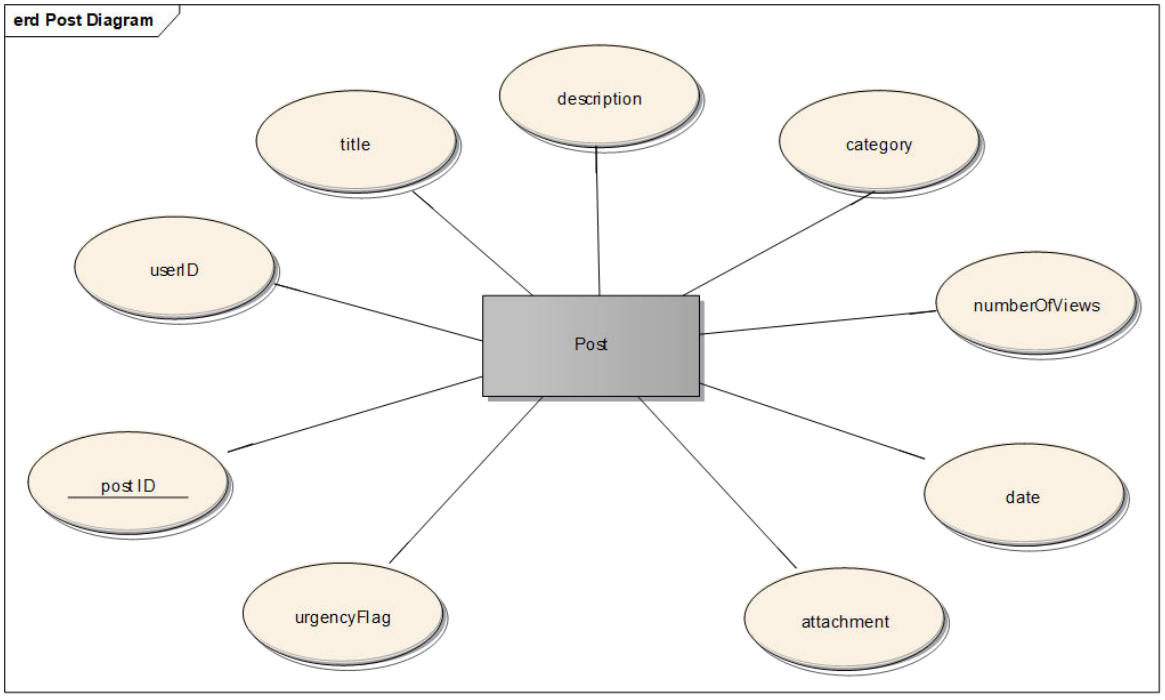


3.7. E/R Diagrams

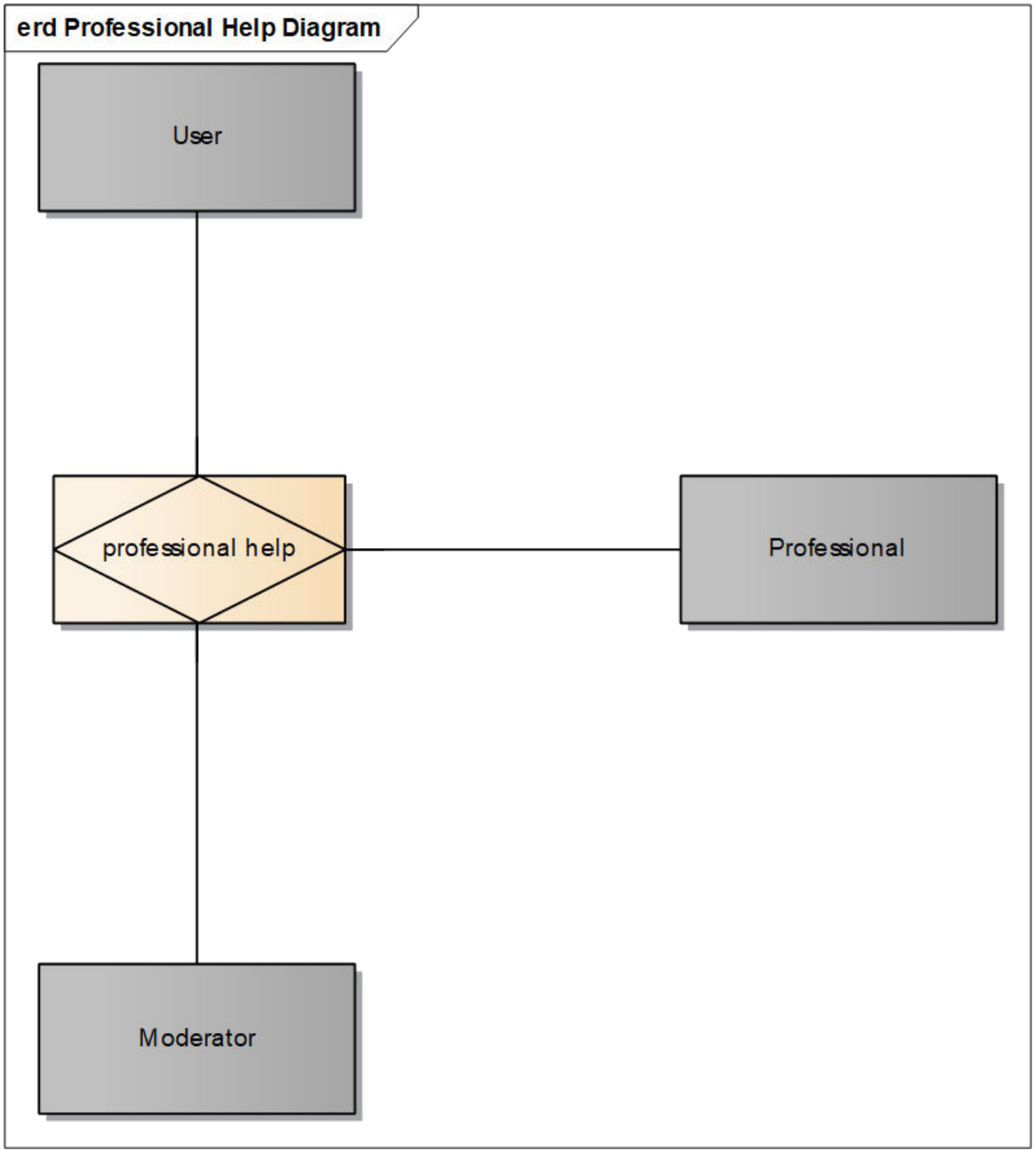
3.7.1. E/R Diagram 1: *System users diagram*



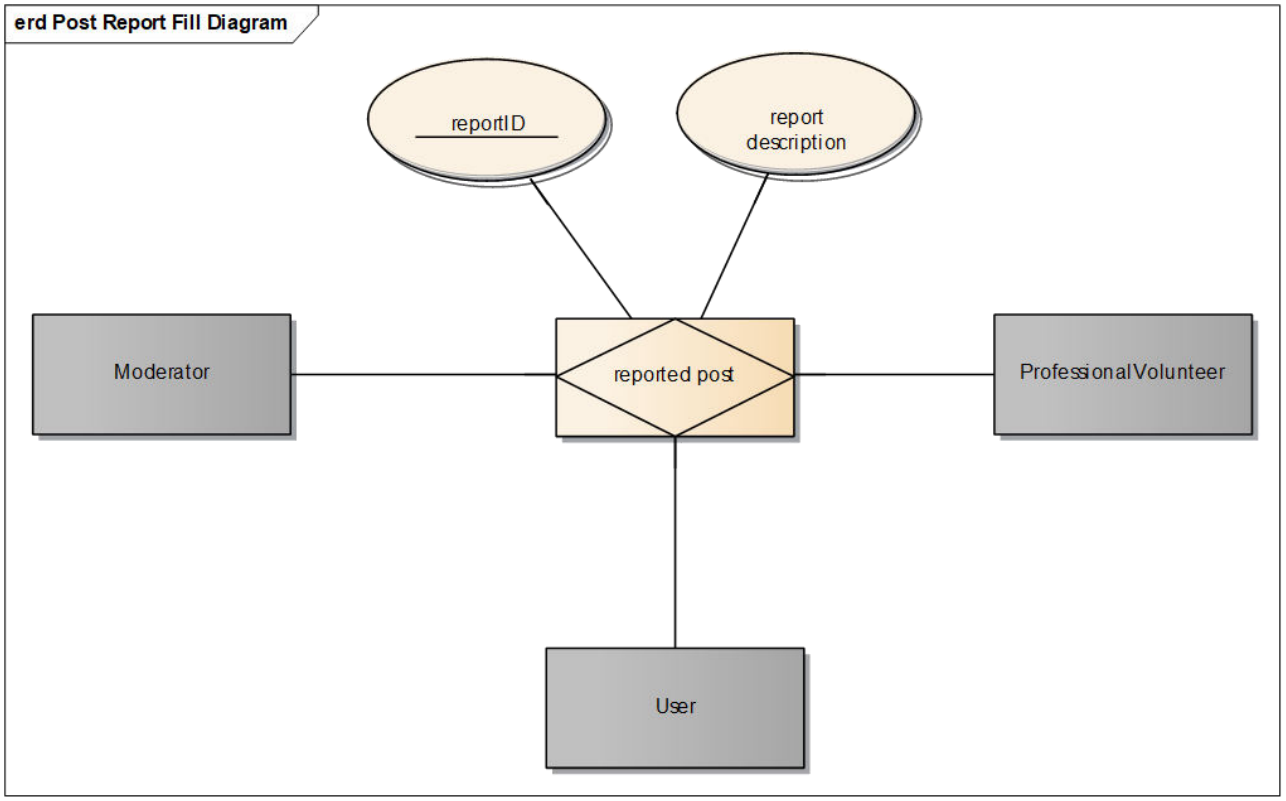
3.7.2. E/R Diagram 2: Post diagram



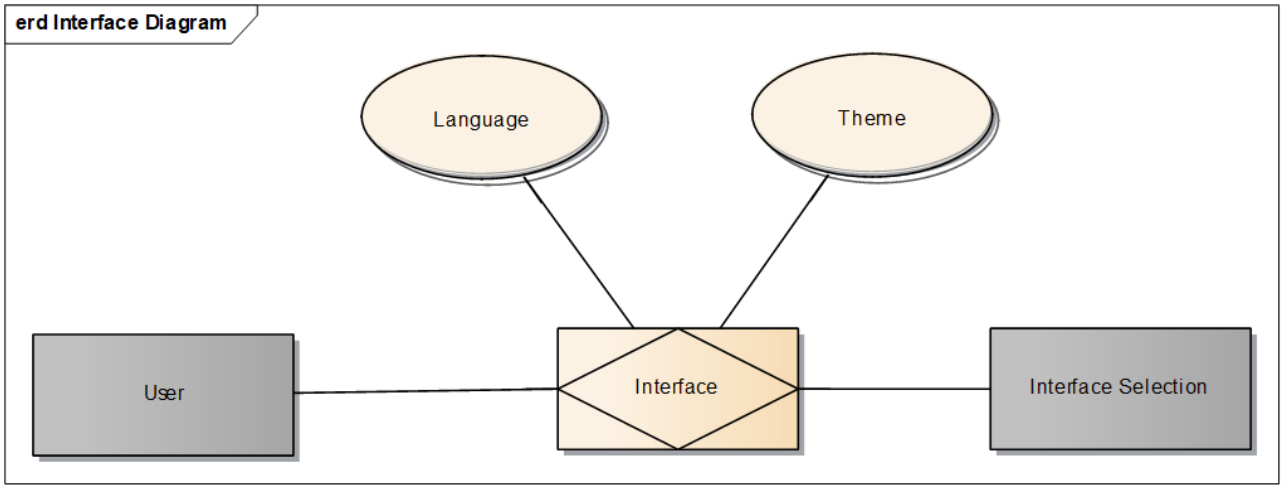
3.7.3. E/R Diagram 3: Professional help diagram



3.7.4. E/R Diagram 4: Post report fill diagram

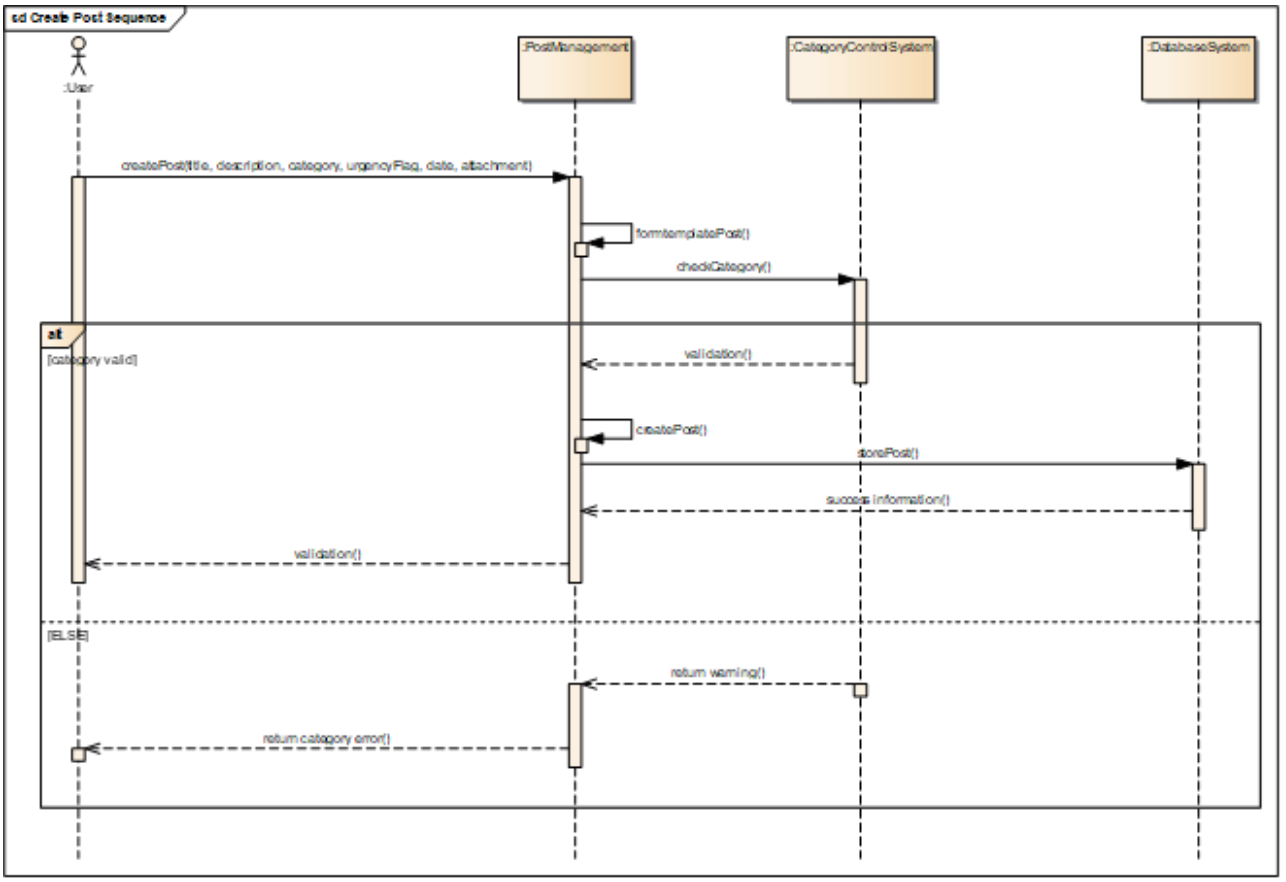


3.7.5. E/R Diagram 5: Interface diagram

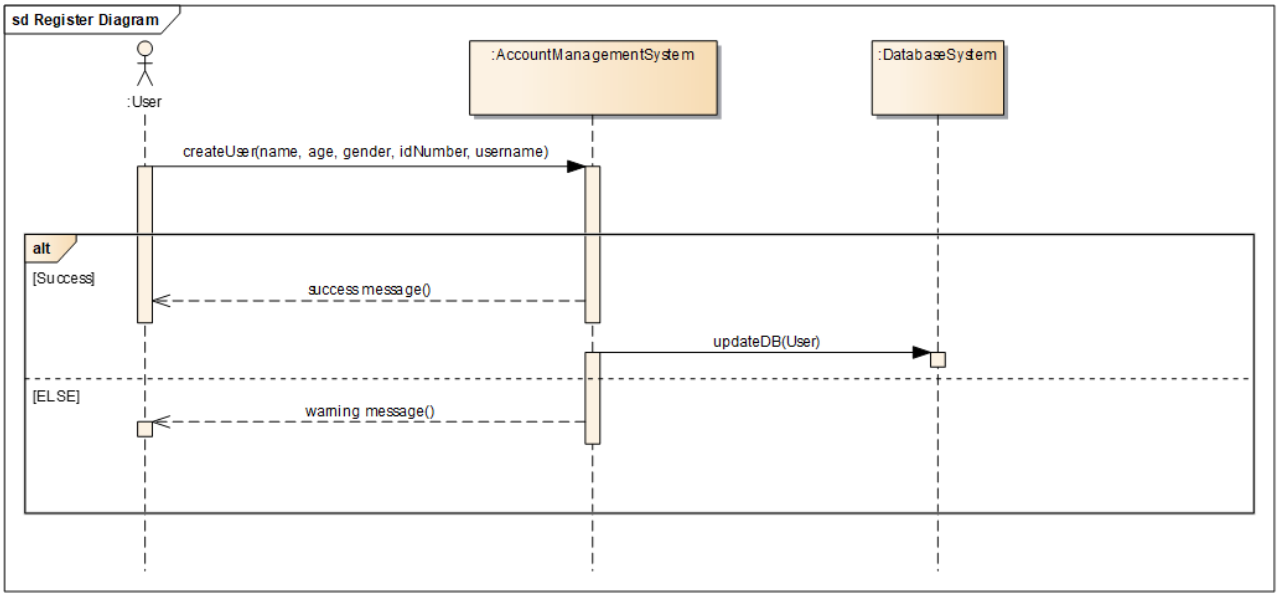


3.8. Sequence Diagrams

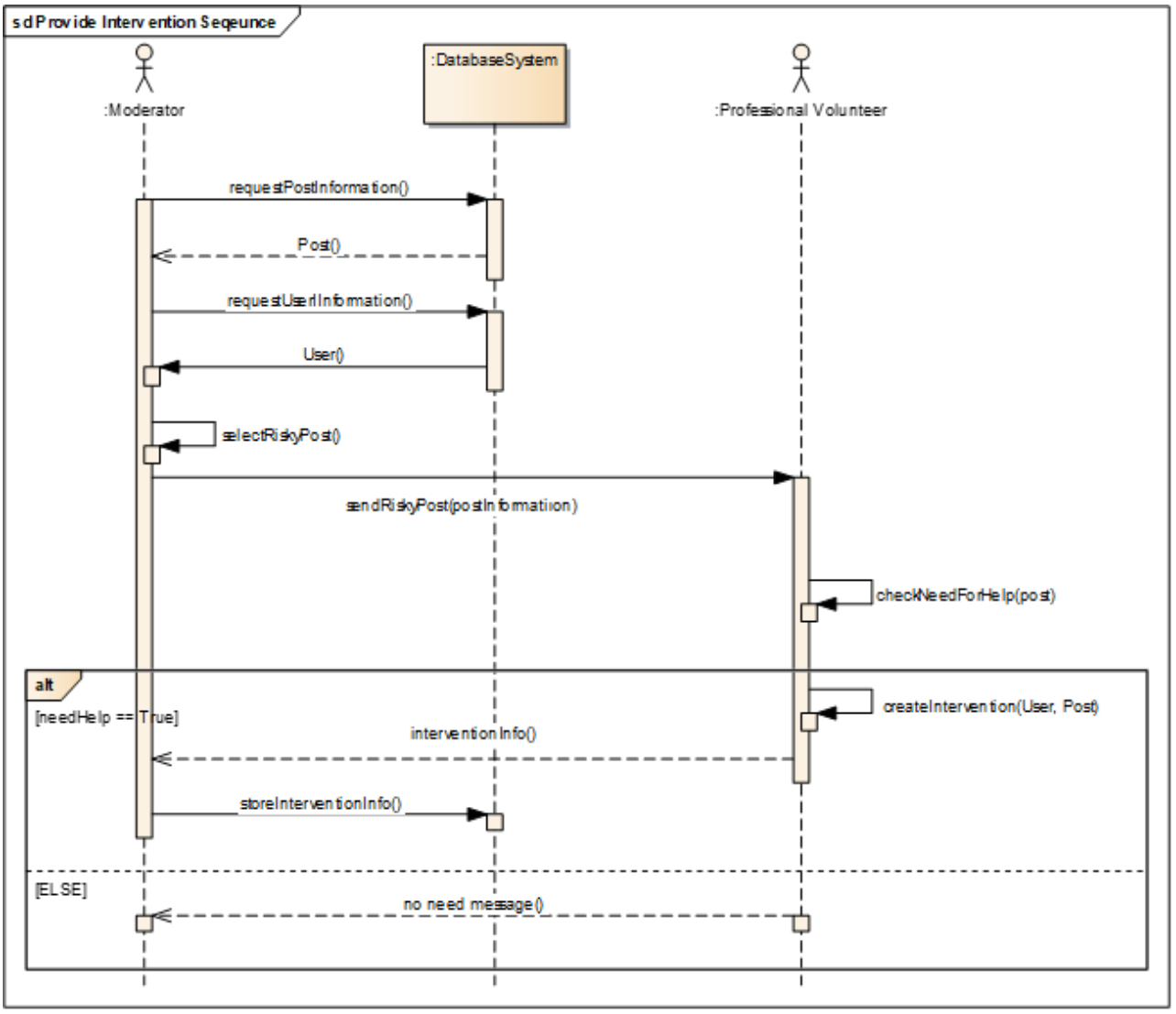
3.8.1. Sequence Diagram 1: *Create Post Sequence*



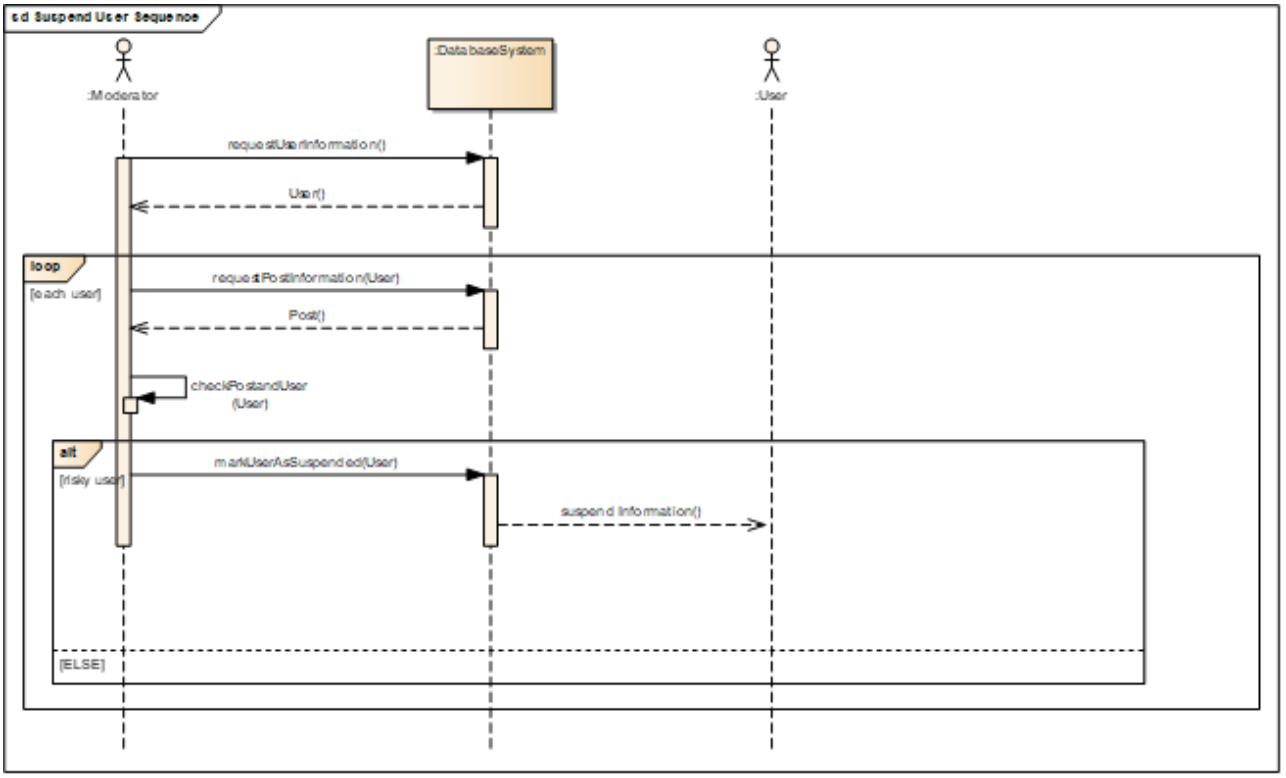
3.8.2. Sequence Diagram 2: *Register to the system*



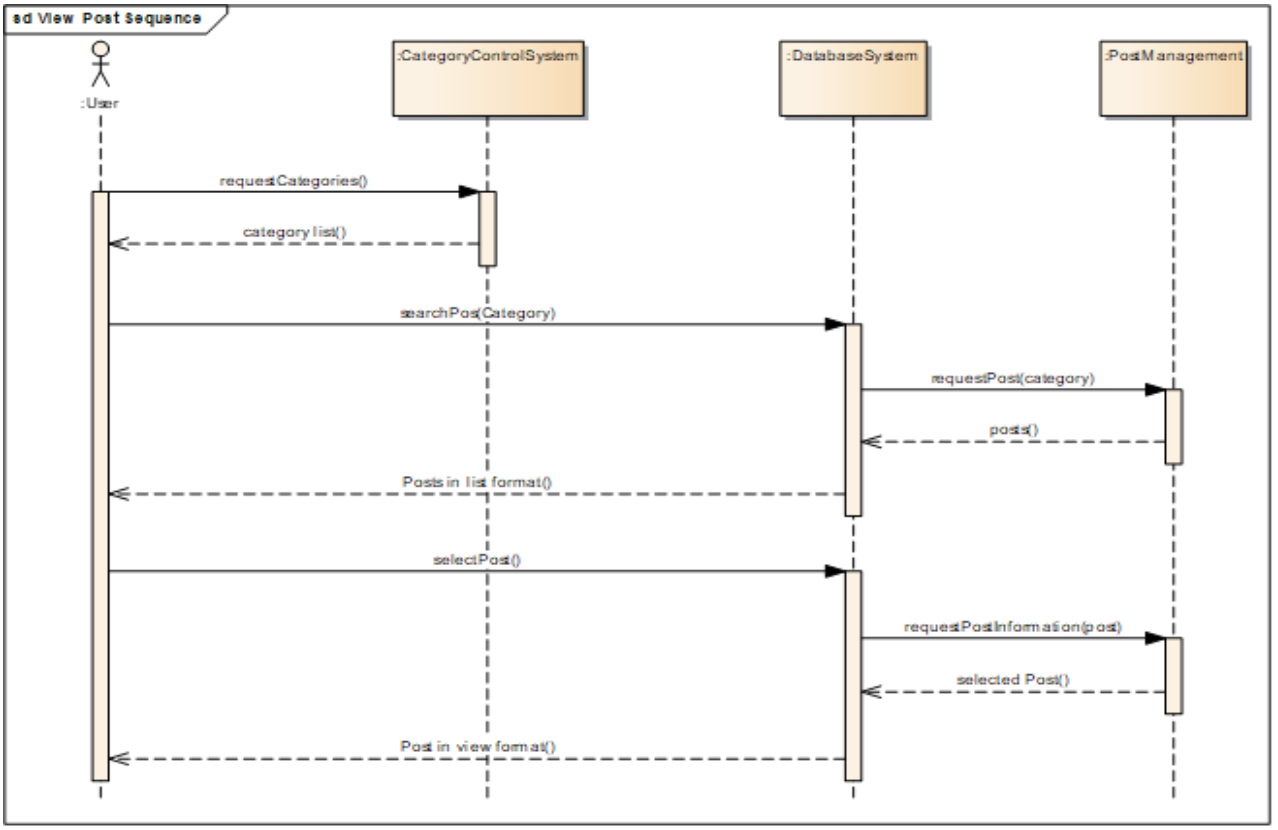
3.8.3. Sequence Diagram 3: *Provide intervention sequence*



3.8.4. Sequence Diagram 4: *Suspend user sequence*

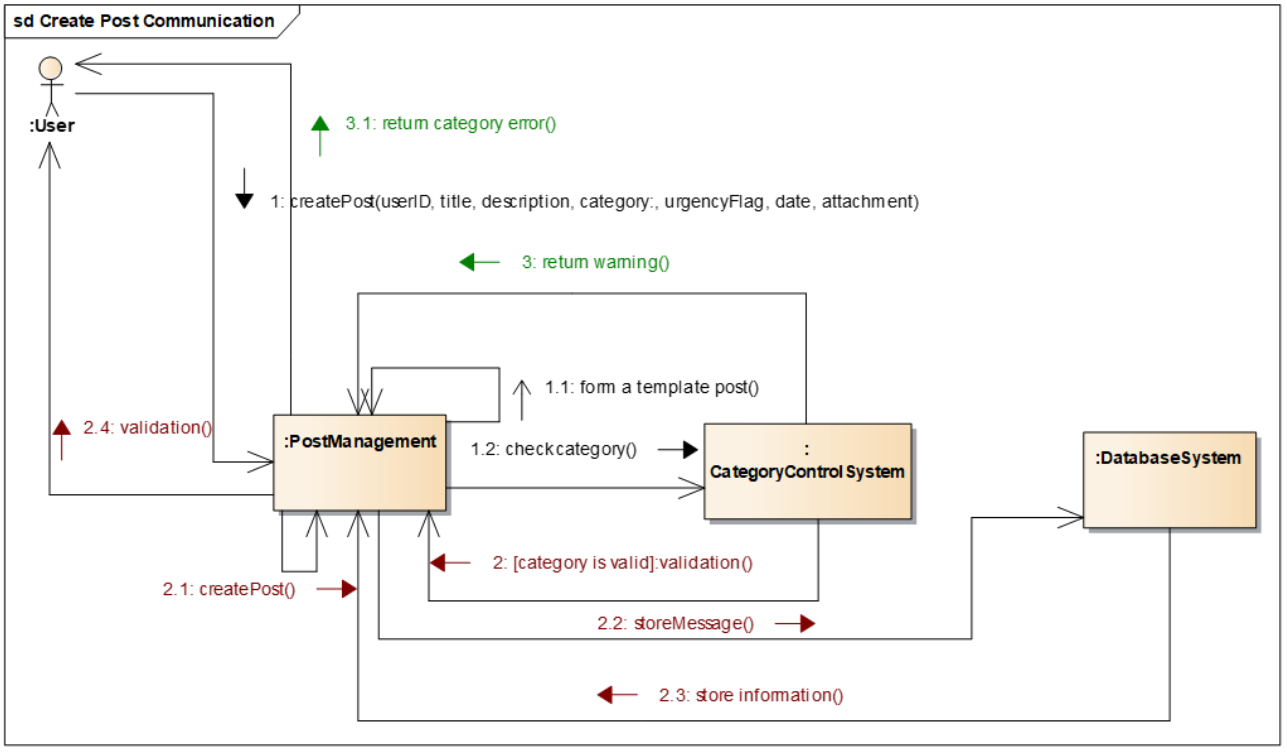


3.8.5. Sequence Diagram 5: *View post sequence*

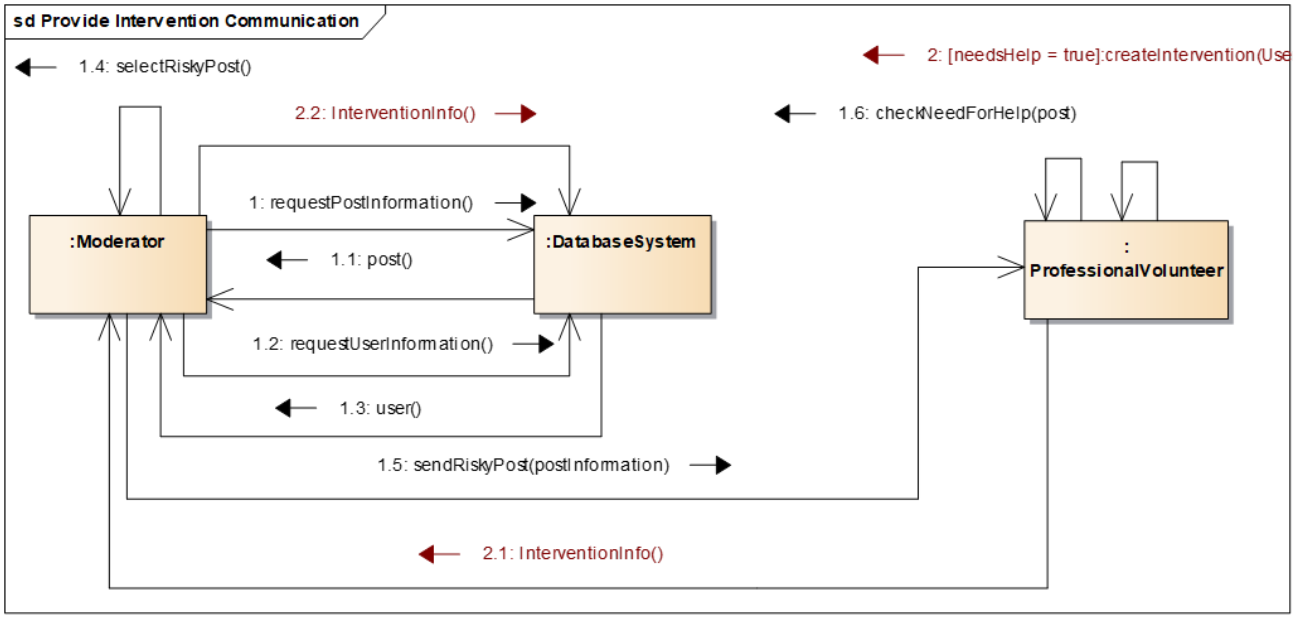


3.9. Communication Diagrams

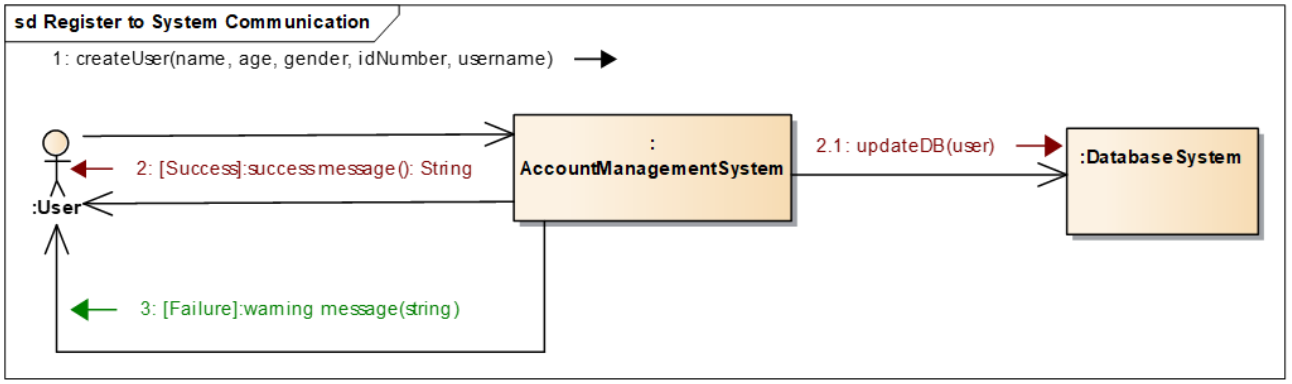
3.9.1. Communication Diagram 1: *Create Post Communication*



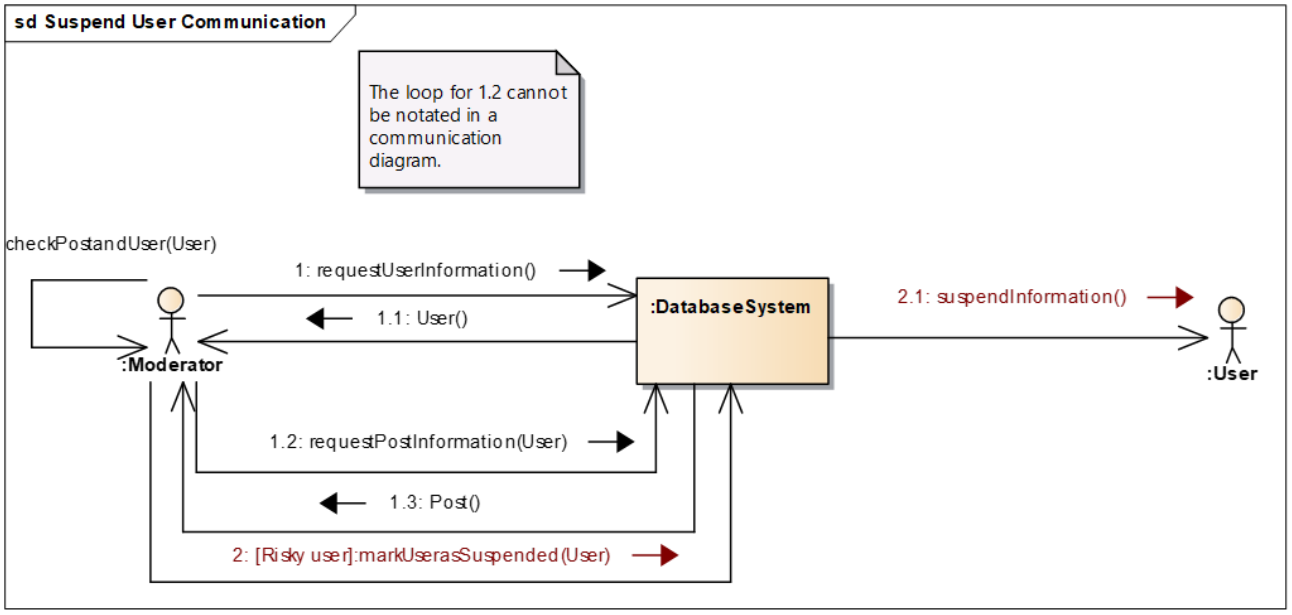
3.9.2. Communication Diagram 2: *Provide Intervention Communication*



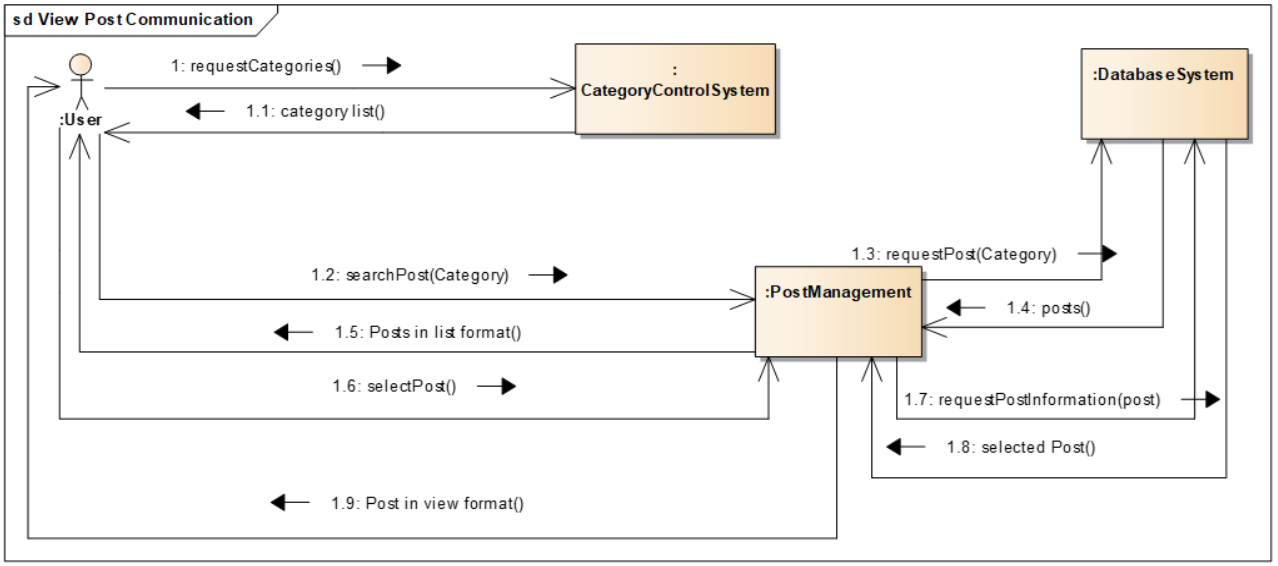
3.9.3. Communication Diagram 3: *Register to the system*



3.9.4. Communication Diagram 4: *Suspend user*



3.9.5. Communication Diagram 5: *View post*



4. Conclusion

In conclusion, the "Point of View" application is designed as a transformative tool to combat social isolation and facilitate the sharing of invaluable life experiences across a diverse user base. Through the integration of various systems like AWS databases, category controls, and moderation, alongside the active participation of users and professional volunteers, it aims to create a safe, supportive, and resource-rich environment for individuals seeking guidance. This project encapsulates a community-driven approach to learning and decision-making, significantly enhancing the way individuals navigate life's challenges by tapping into collective wisdom and experience.