COS 301 - Mini Project

Functional requirements and application design

Group 1B

2015

Contents

1 Preface

1.1 General Information

We used Github as our version control system. The repository can be accessed at: `https://github.com/thinusn/Mini-Project-Requirements-Group-1B`

1.2 Group members

- 13033922 Elzahn Botha
- 12223426 Estian Rosslee
- 13025105 Jaco-Louis Kruger
- 13073878 Christopher Araujo
- 13093500 Paul Engelke
- 13028741 Frikkie Snyman
- 13019602 Thinus Naude

1.3 Contributions to project

Estian Rosslee (12223426) **did not create any of the diagrams presented in this document.** All other members of the group participated fully towards completing the project.

1.3.1 Who did what

- Planning: Group effort
- Use case prioritization: Group effort
- Services contracts: Jaco-Louis Kruger(1), Daniel Araujo (2), Thinus Naude (4), Paul Engelke(1) and Elzahn Botha(1)
- Required functionality: Jaco-Louis Kruger(6) and Thinus Naude(3)
- Process specifcations: Elzahn Botha(10), Daniel **Araujo**(6) and Paul Engelke(4)
- Domain Model: Frikkie Snyman(everything)
- LaTex: Thinus Naude(everything)
- Modification and 'Error' Checks: Jaco-Louis Kruger, Daniel Araujo, Thinus Naude, Paul Engelke and Elzahn Botha

2 Functional requirements and application design

2.1 Use case prioritization

2.1.1 Critical

A use case which is absolutely essential

- Create, Read/View/Get, Delete and Update of BuzzSpace
- Create, Read/View/Get, Delete and Update of Thread
- Create, Read/View/Get, Delete and Update of Thread Posts
- Authentication

2.1.2 Important

The system would still be useful without some of the important use cases, but the client would get quantifiably less value from the system.

- User (profiles and actions)
- User Communication (Email Templates)
- Tagging

2.1.3 Nice-To-Have

Its a requirement but the value to the client is insignificant.

- Plagiarism checker
- Netiquette checker

2.2 Services contracts

2.2.1 Analytics

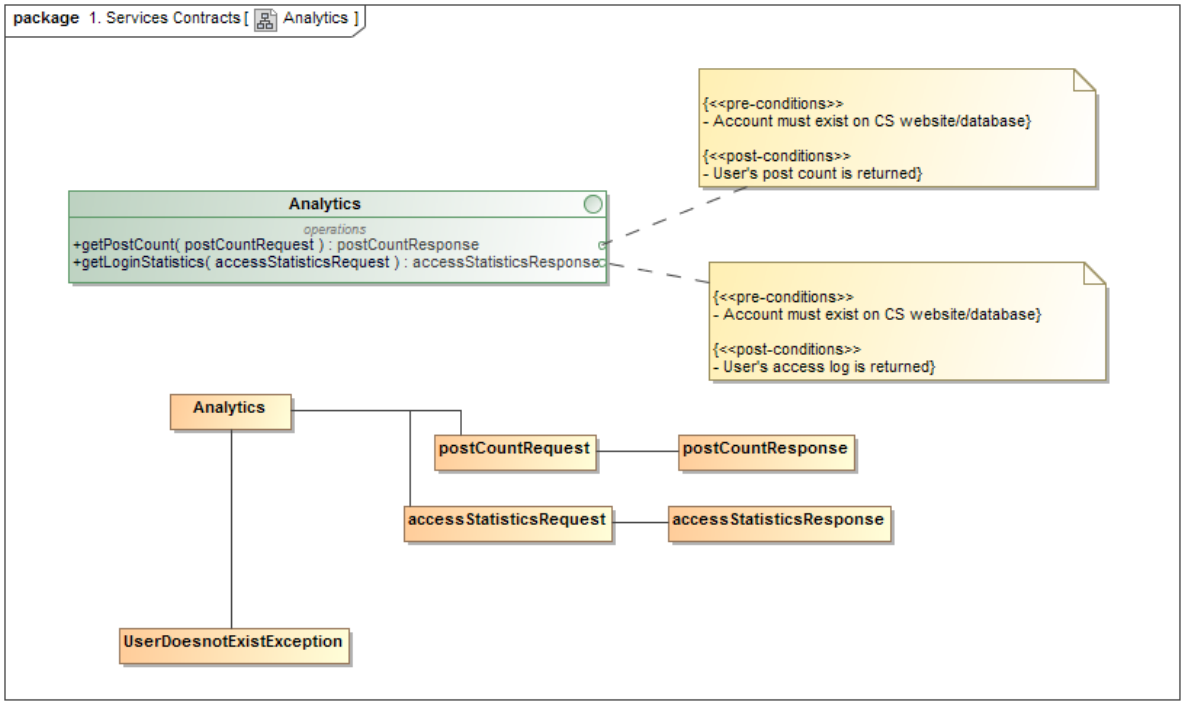

Figure 1: Analytics services contracts.

2.2.2 Authentication

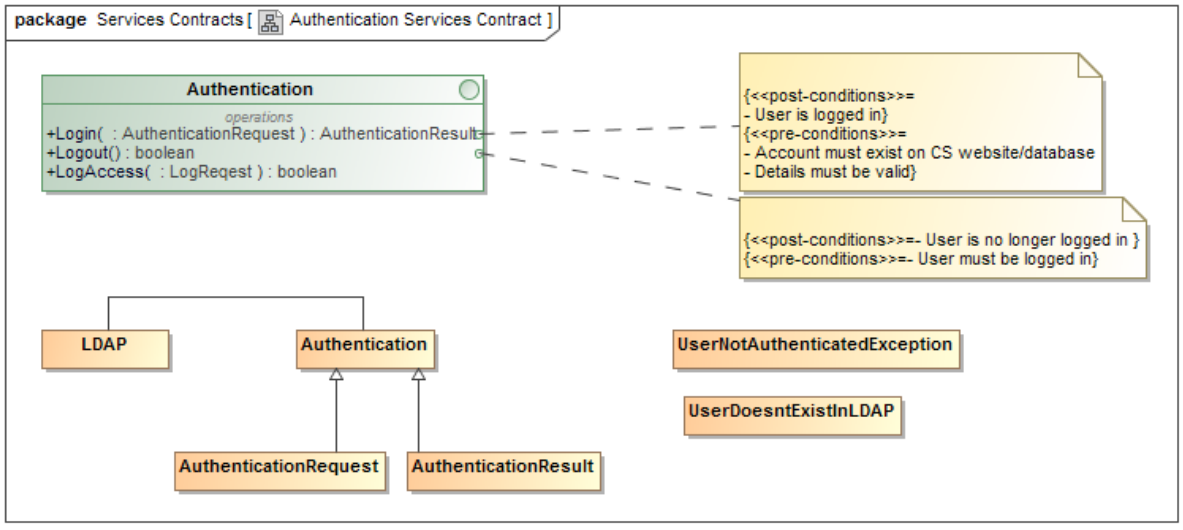

Figure 2: Authentication services contracts.

2.2.3 BuzzSpace

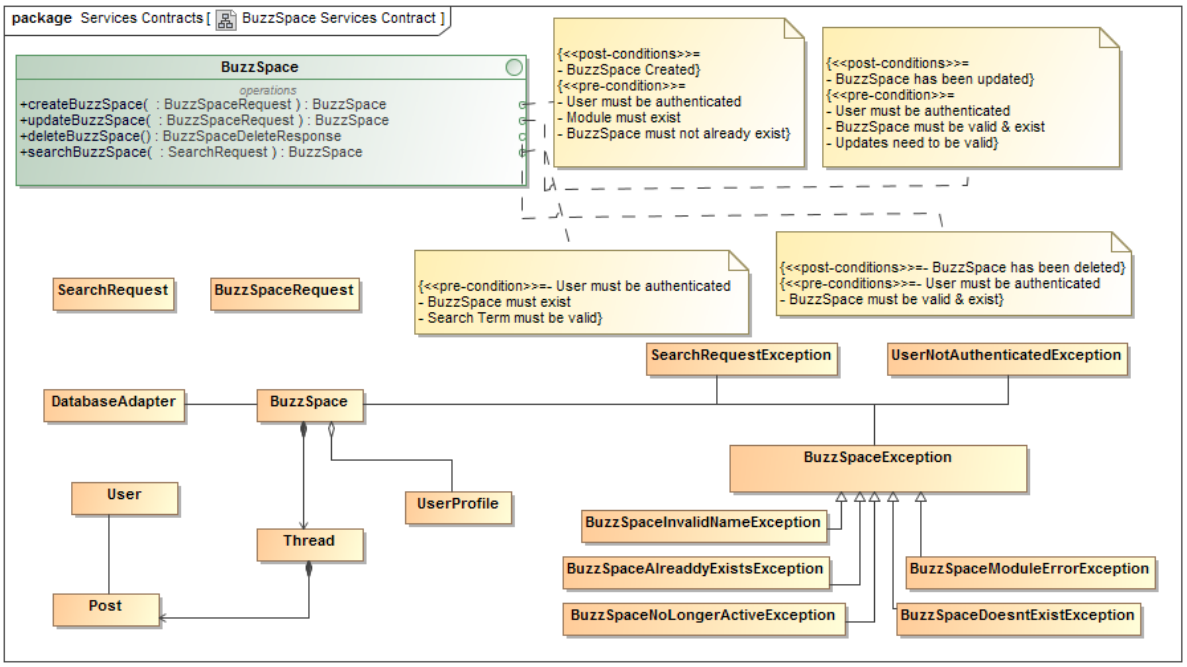

Figure 3: BuzzSpace services contracts.

2.2.4 Communication

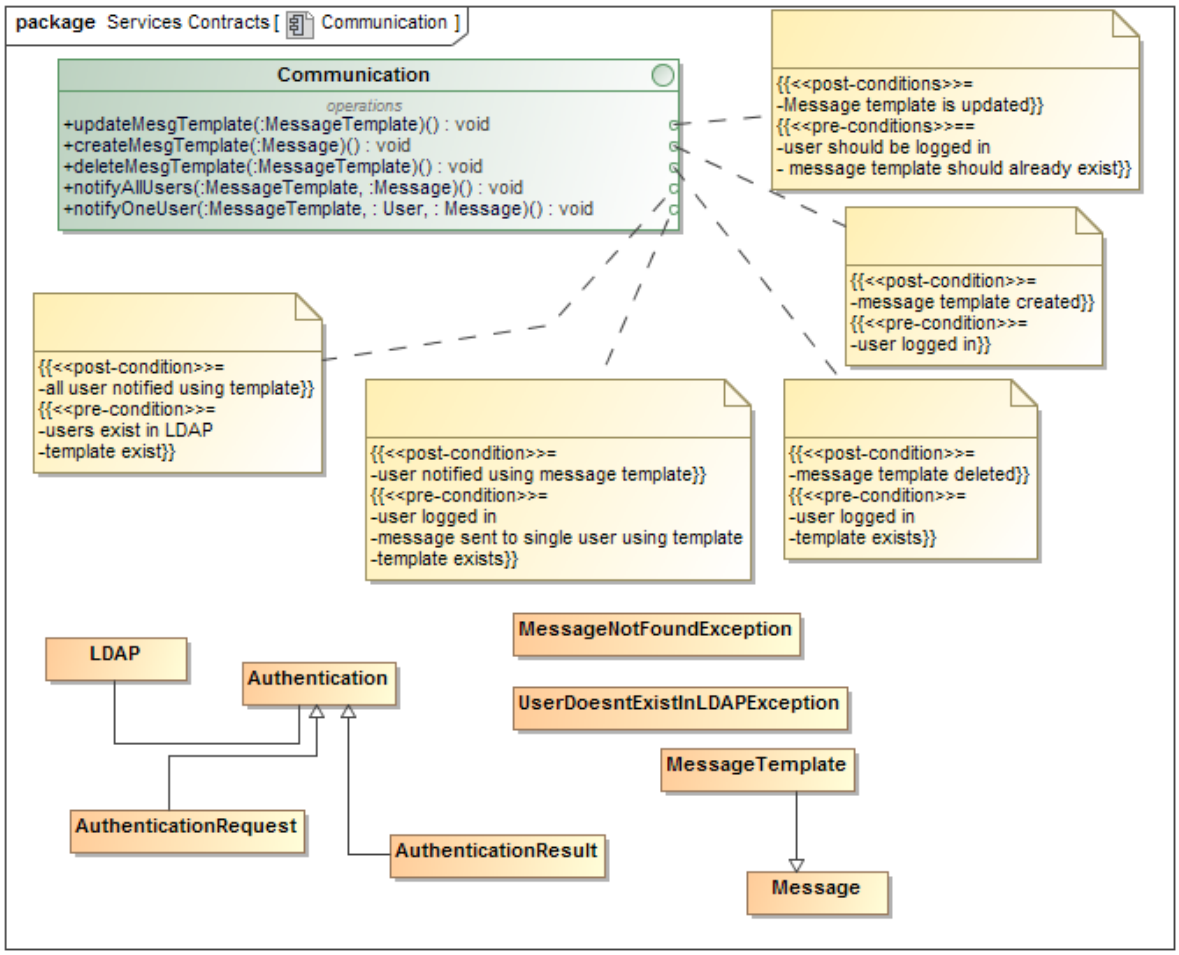

Figure 4: Communication services contracts.

2.2.5 Plagiarism / Netetiquette

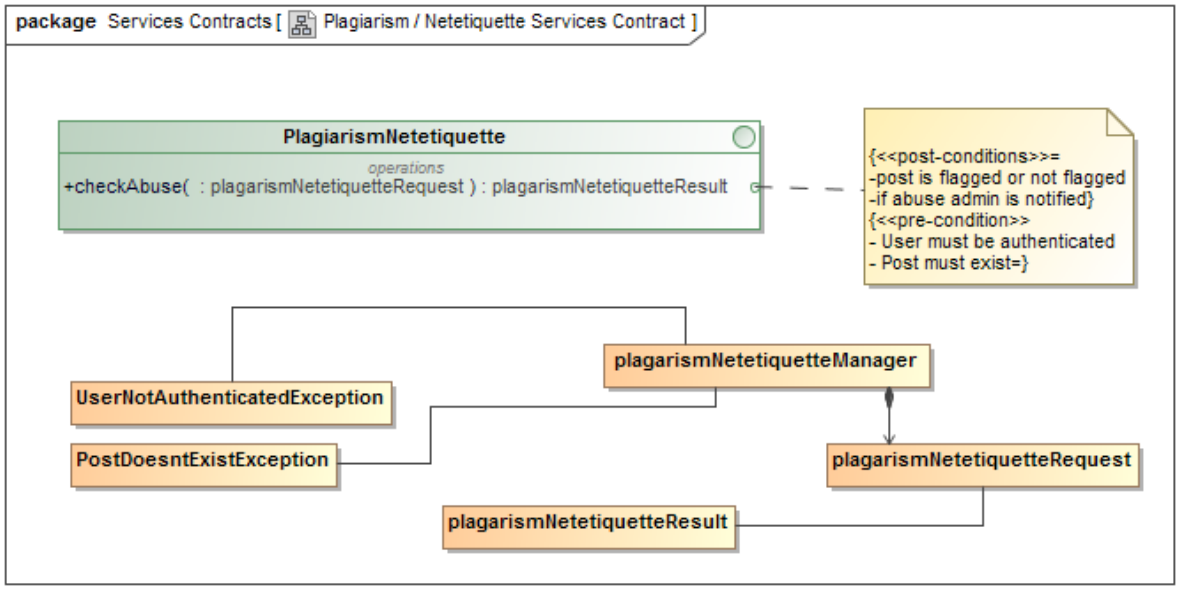

Figure 5: Plagiarism and Netetiquette services contracts.

2.2.6 Tagging

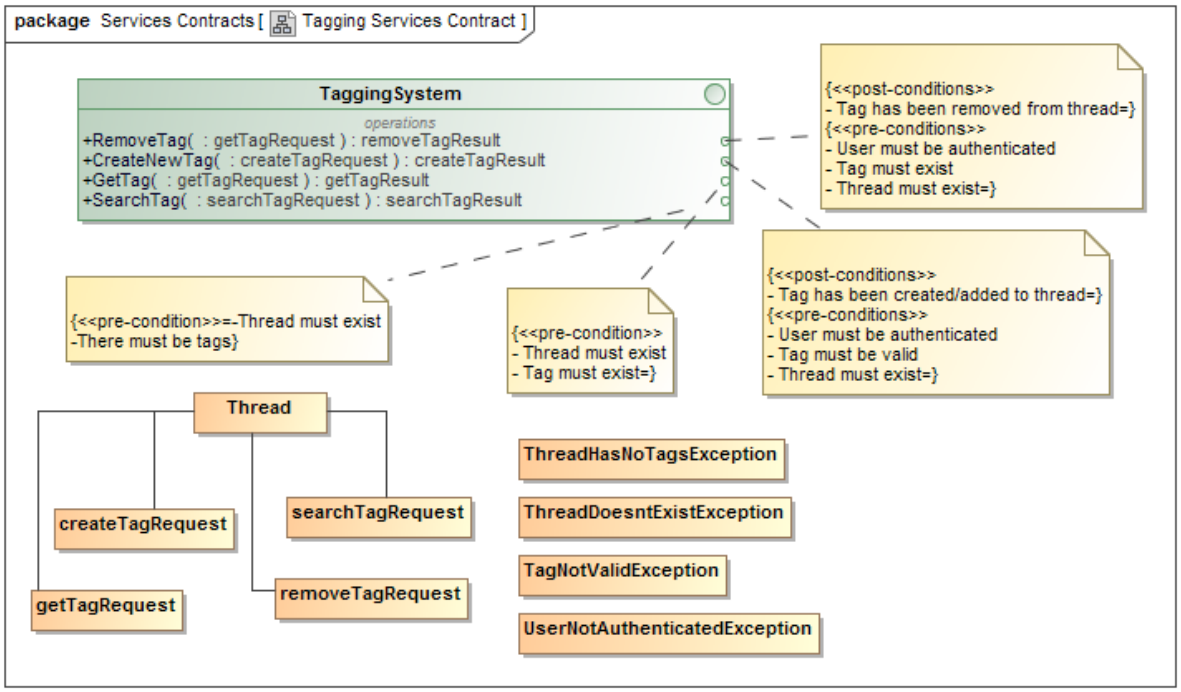

Figure 6: Tagging services contracts.

2.2.7 Thread

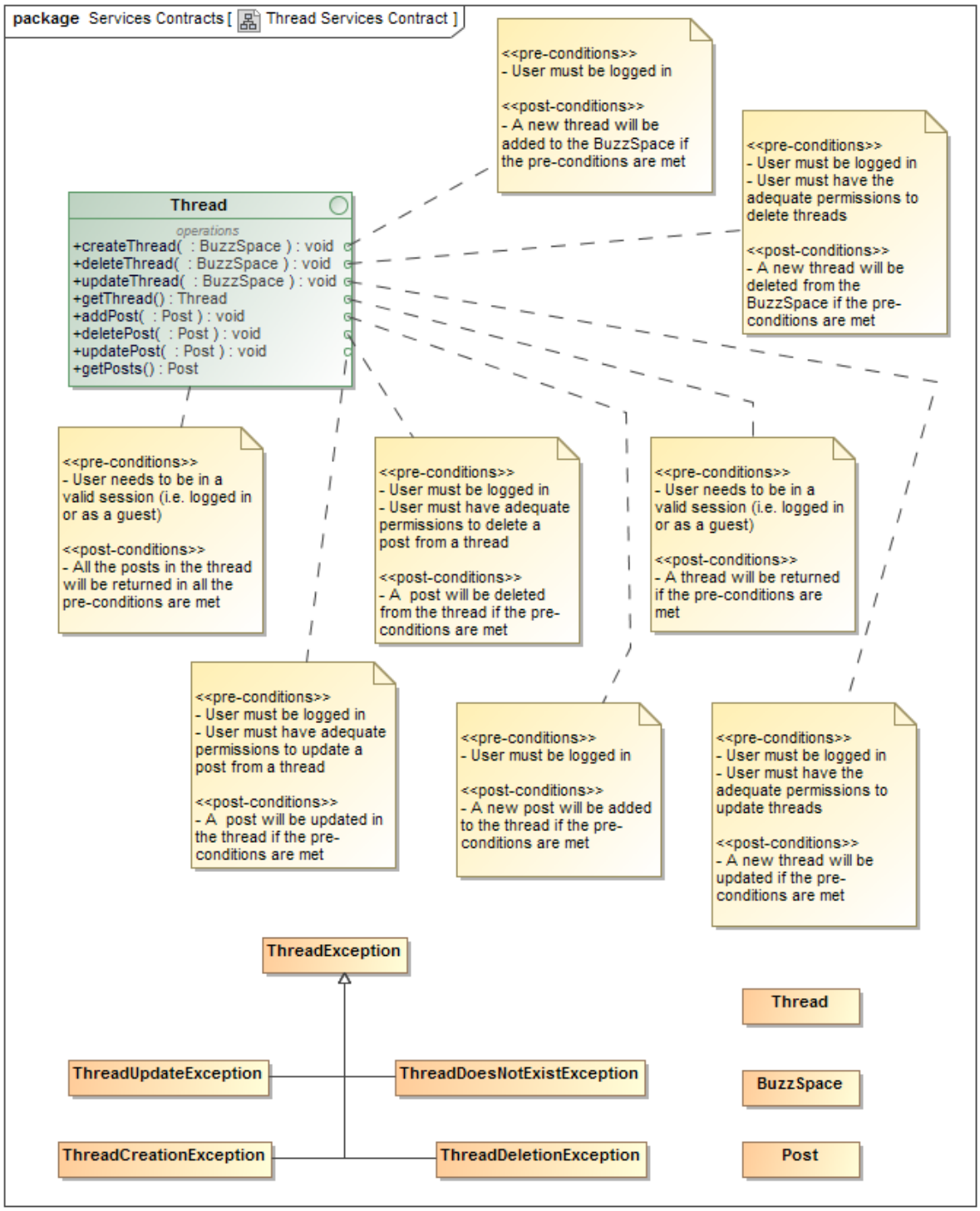

Figure 7: Thread services contracts.

2.2.8 Thread Posts

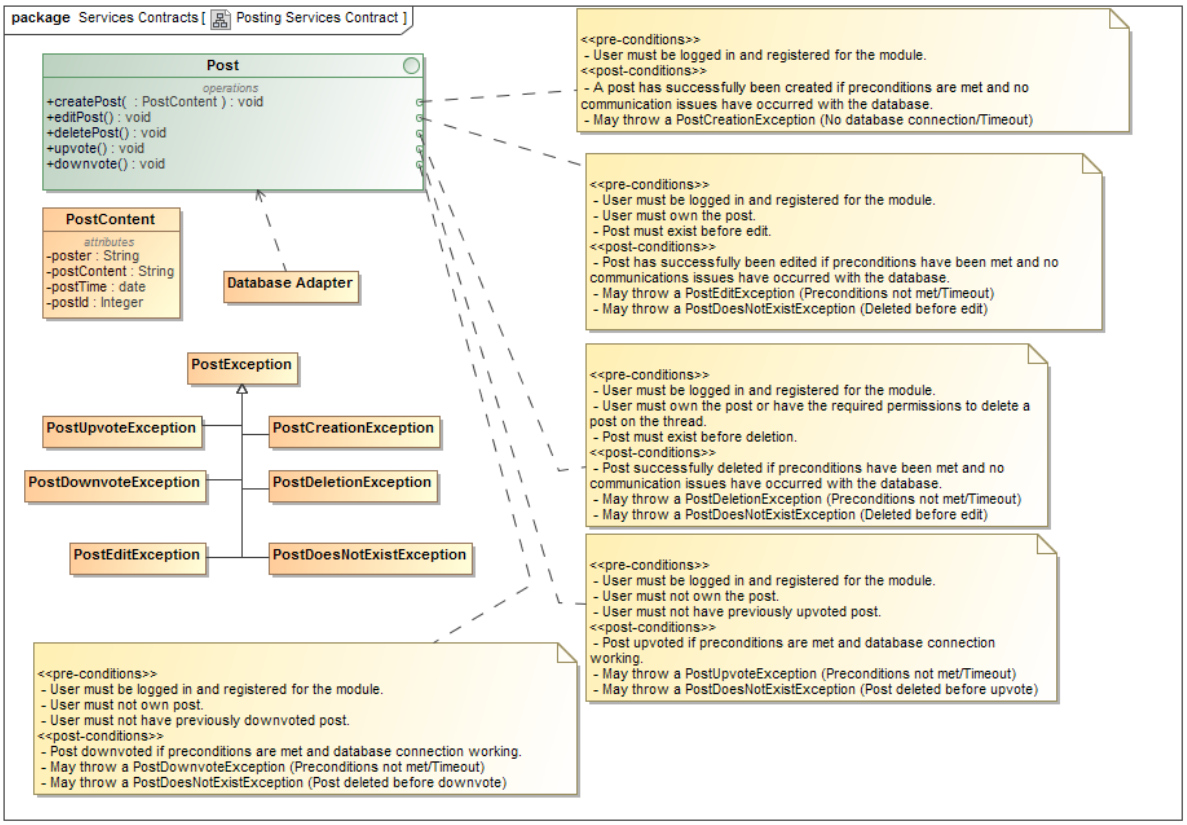

Figure 8: Thread Posts services contracts.

2.2.9 User

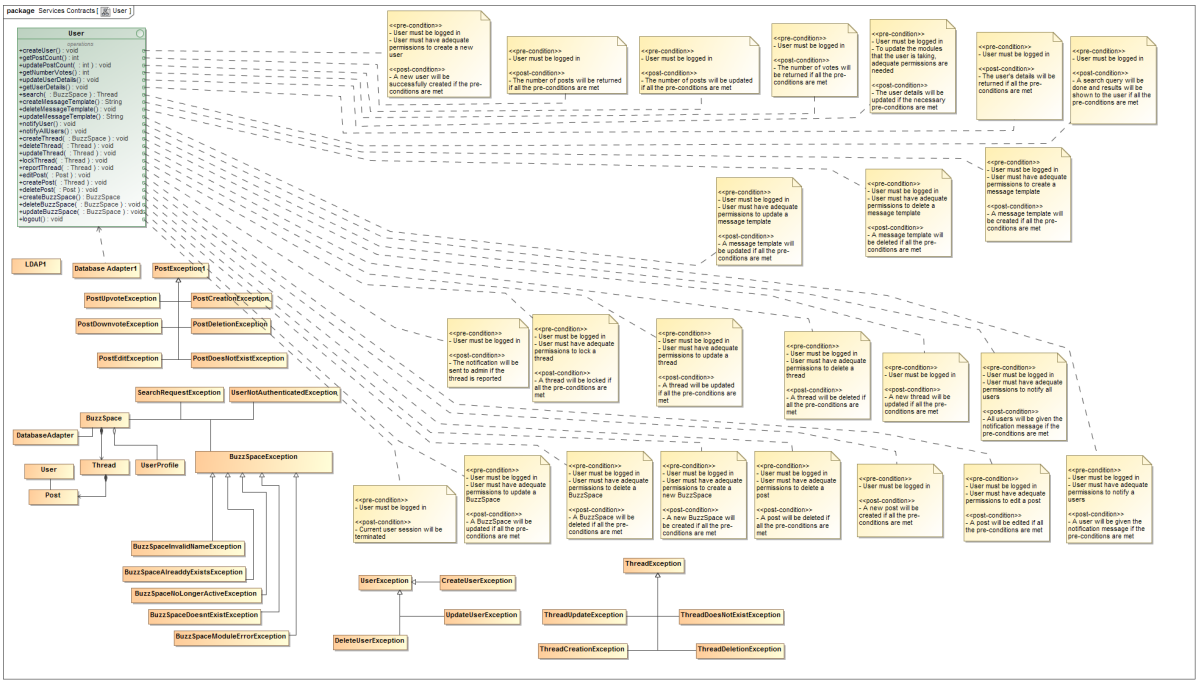

Figure 9: User actions services contracts.

2.3 Required functionality

2.3.1 Analytics

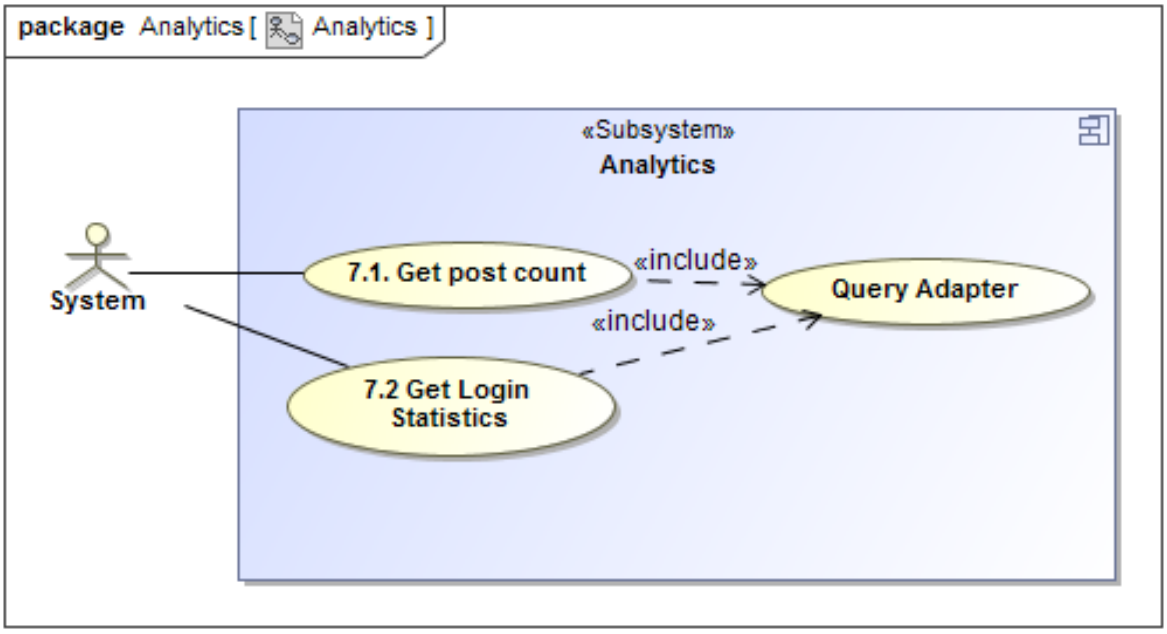

Figure 10: Analytics sub system use case diagram.

2.3.2 Authentication

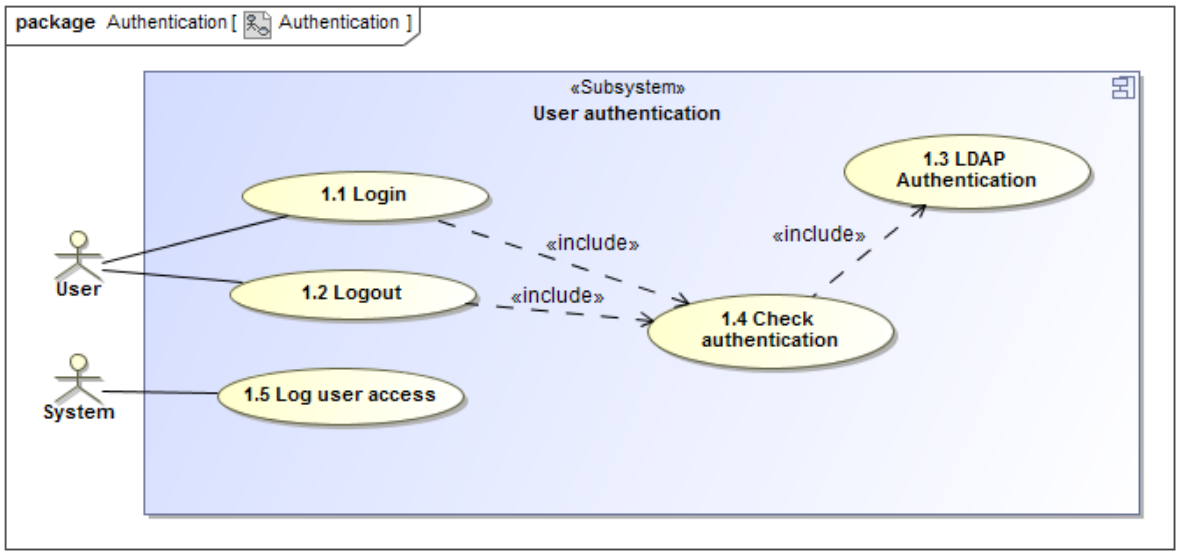

Figure 11: Authentication sub system use case diagram.

2.3.3 BuzzSpace

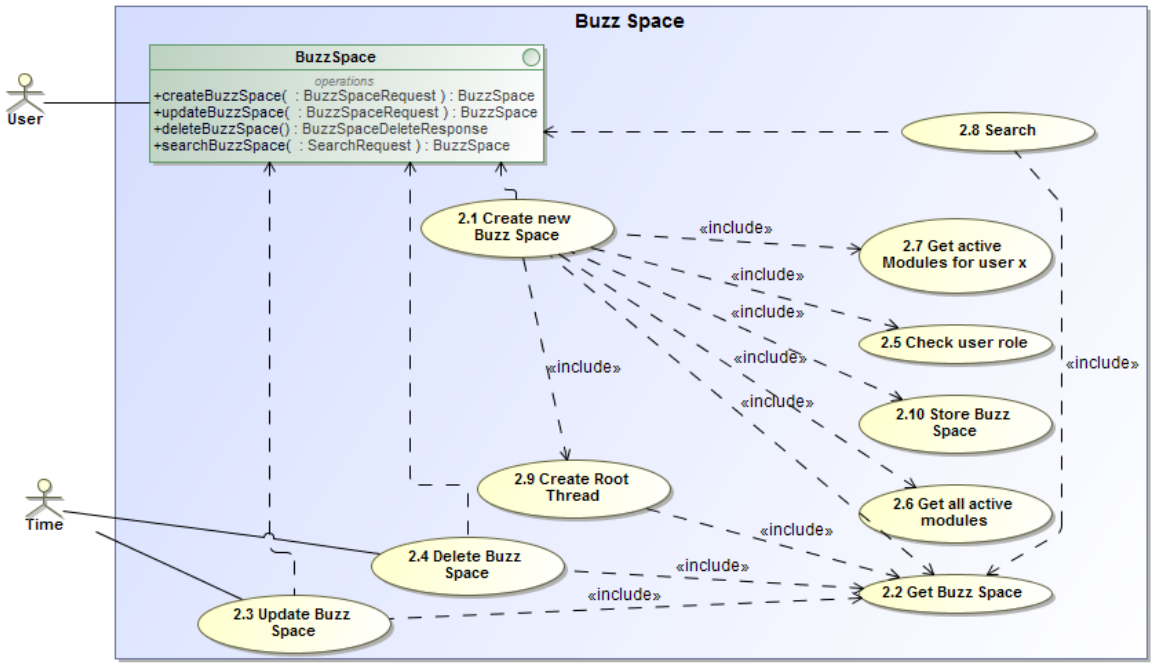

Figure 12: BuzzSpace sub system use case diagram.

2.3.4 Communication

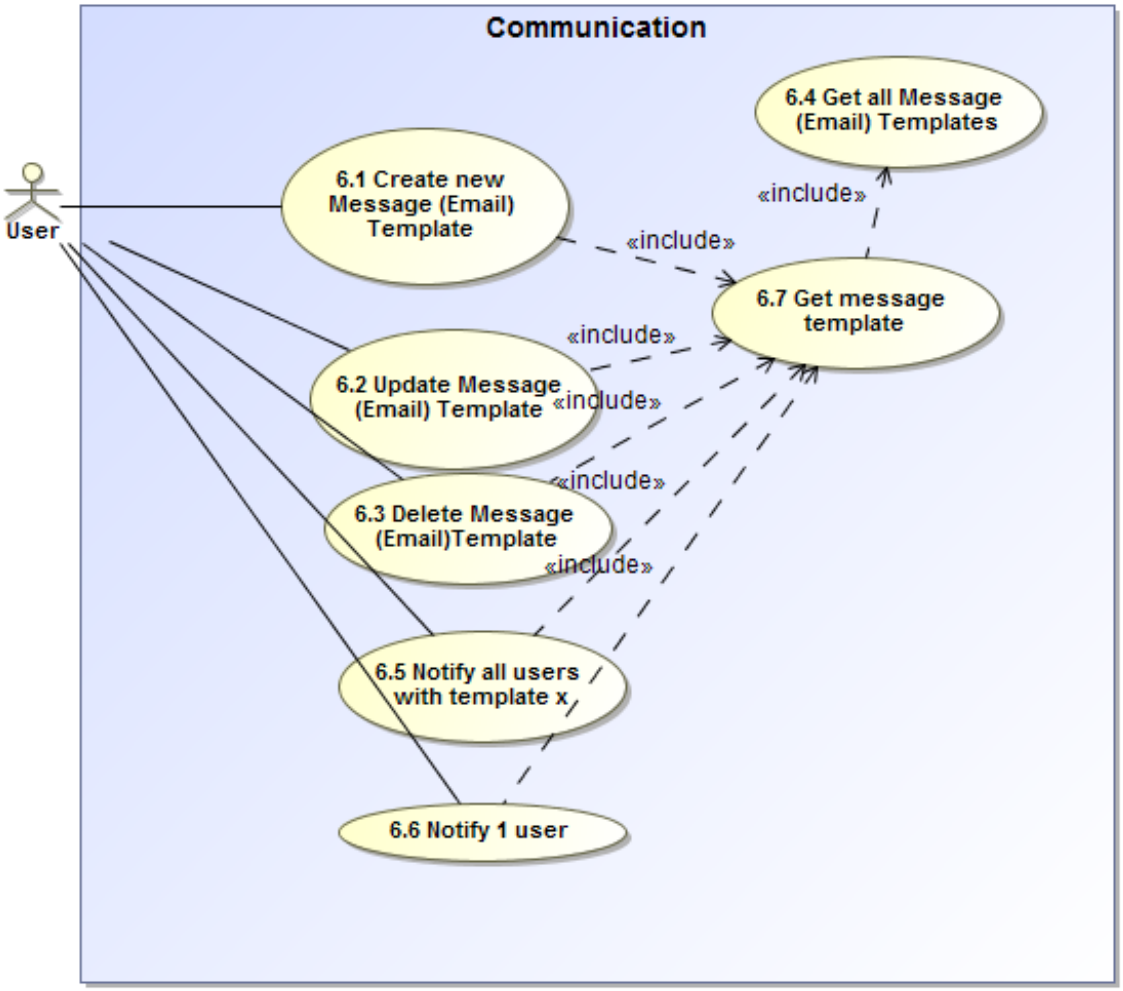

Figure 13: Communication sub system use case diagram.

2.3.5 Plagiarism / Netetiquette

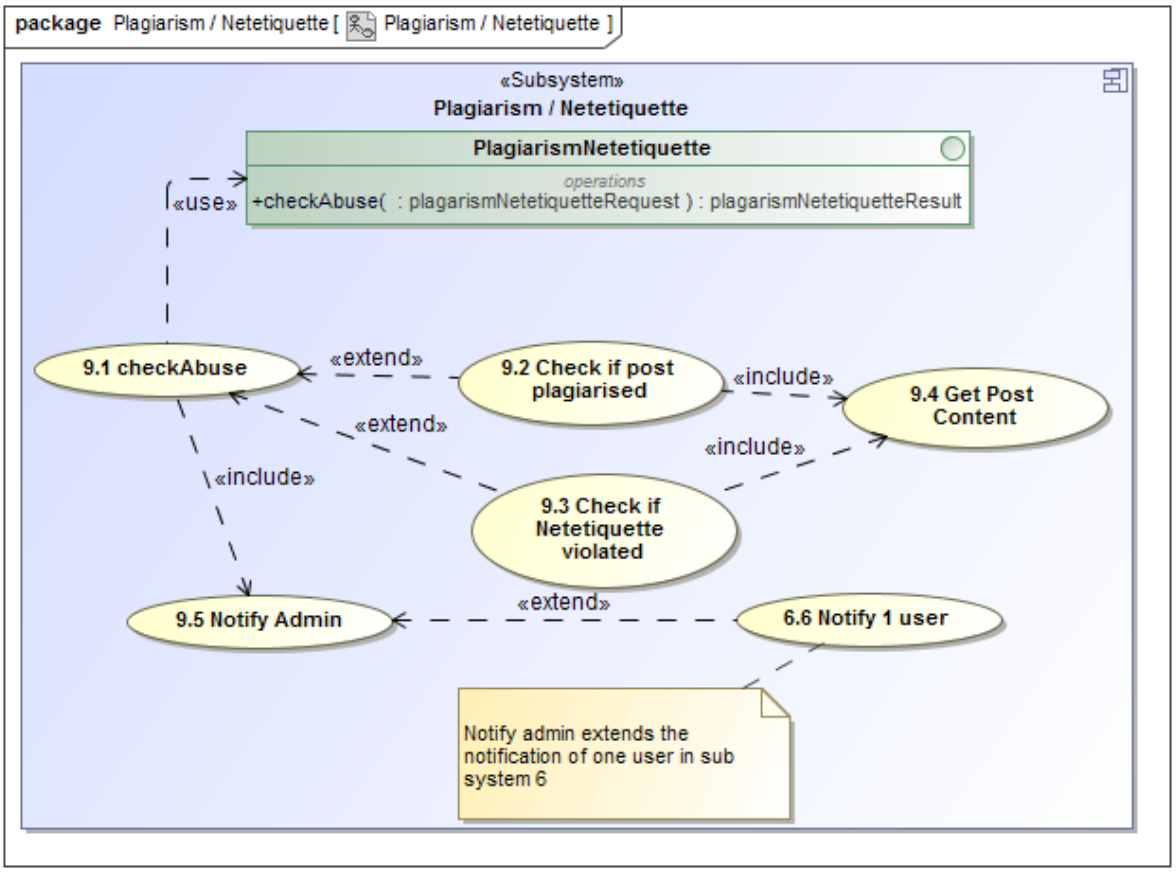

Figure 14: Plagiarism and Netetiquette sub system use case diagram.

2.3.6 Tagging

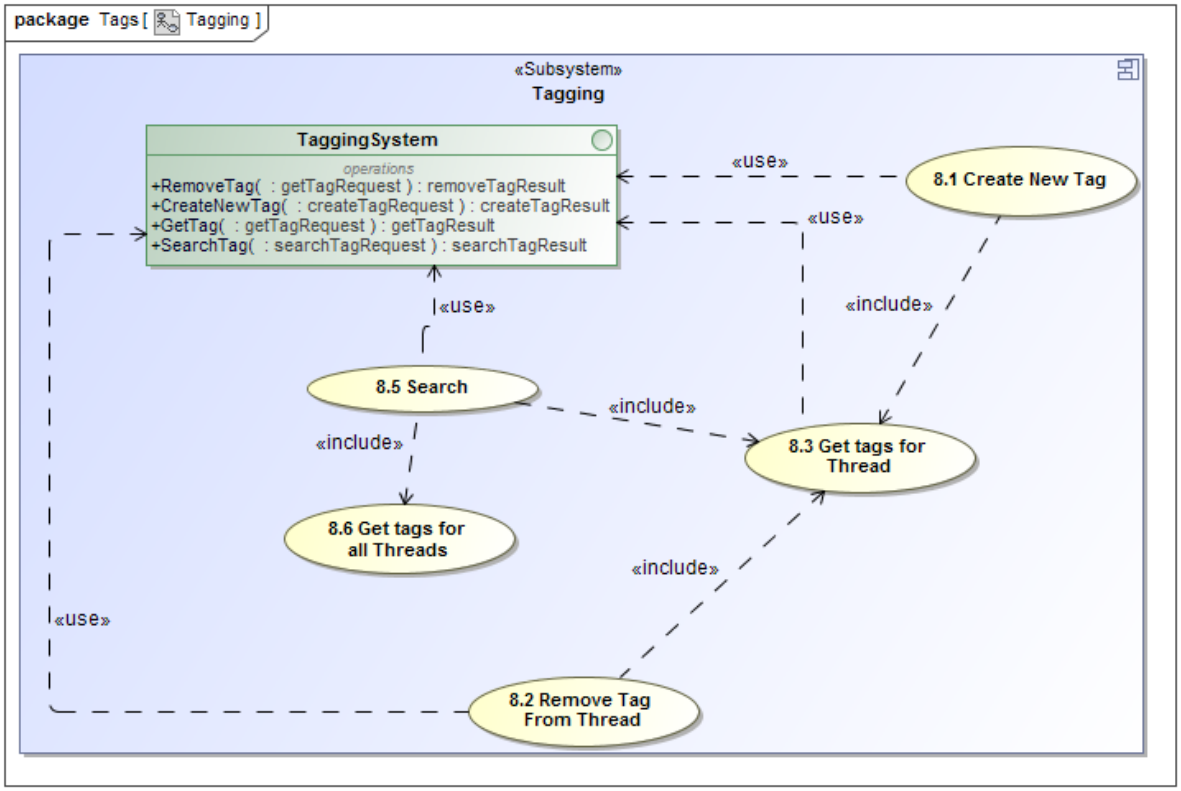

Figure 15: Tagging sub system use case diagram.

2.3.7 Thread

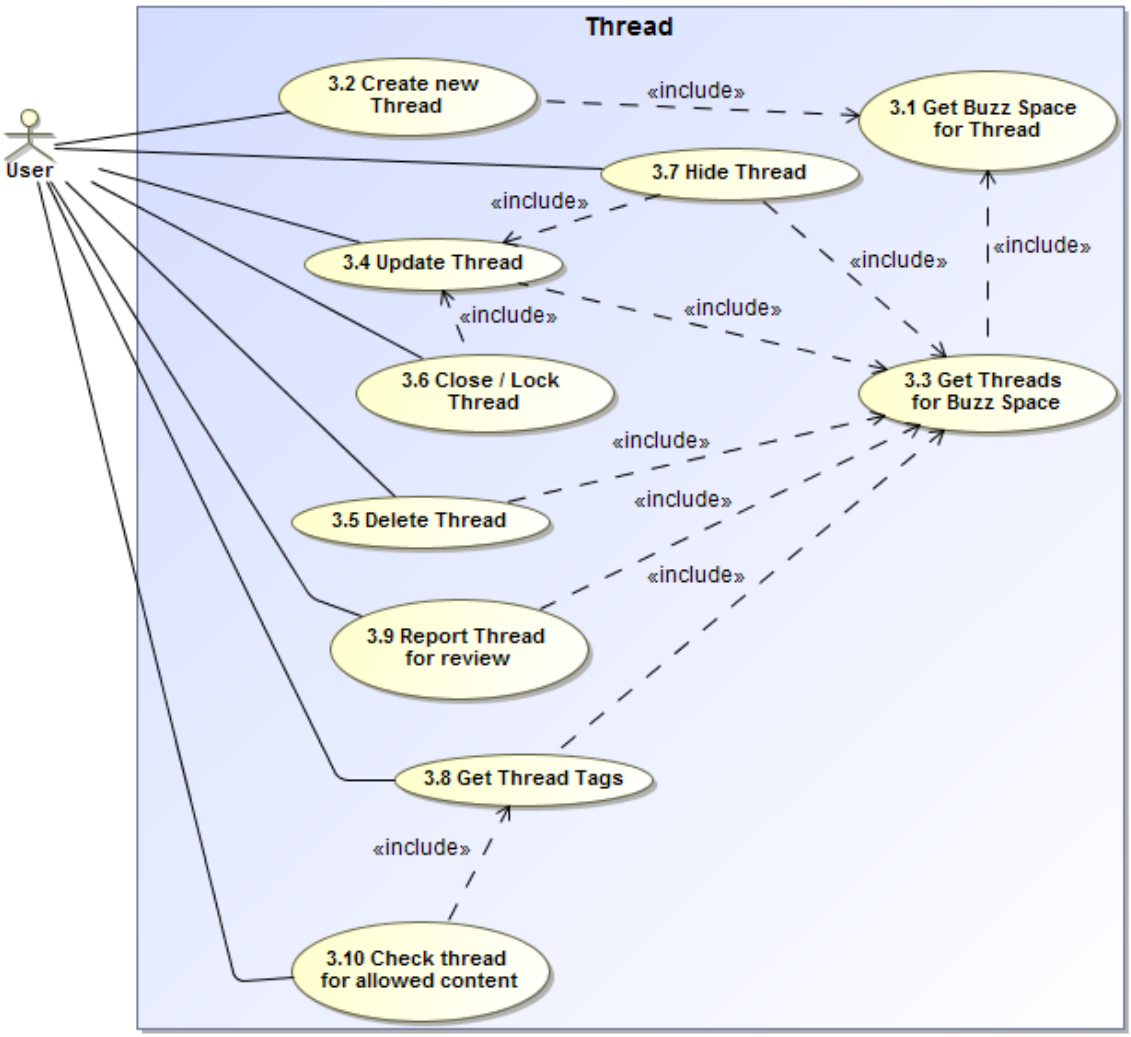

Figure 16: Tagging sub system use case diagram.

2.3.8 Thread Posts

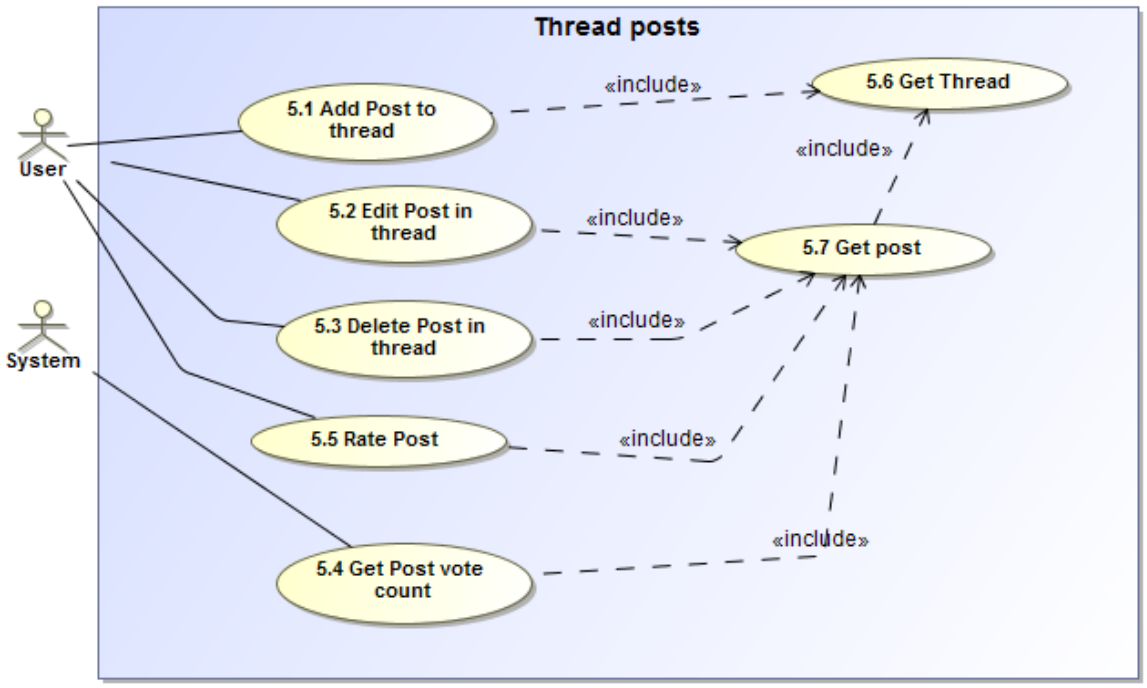

Figure 17: Thread Posts sub system use case diagram.

2.3.9 User

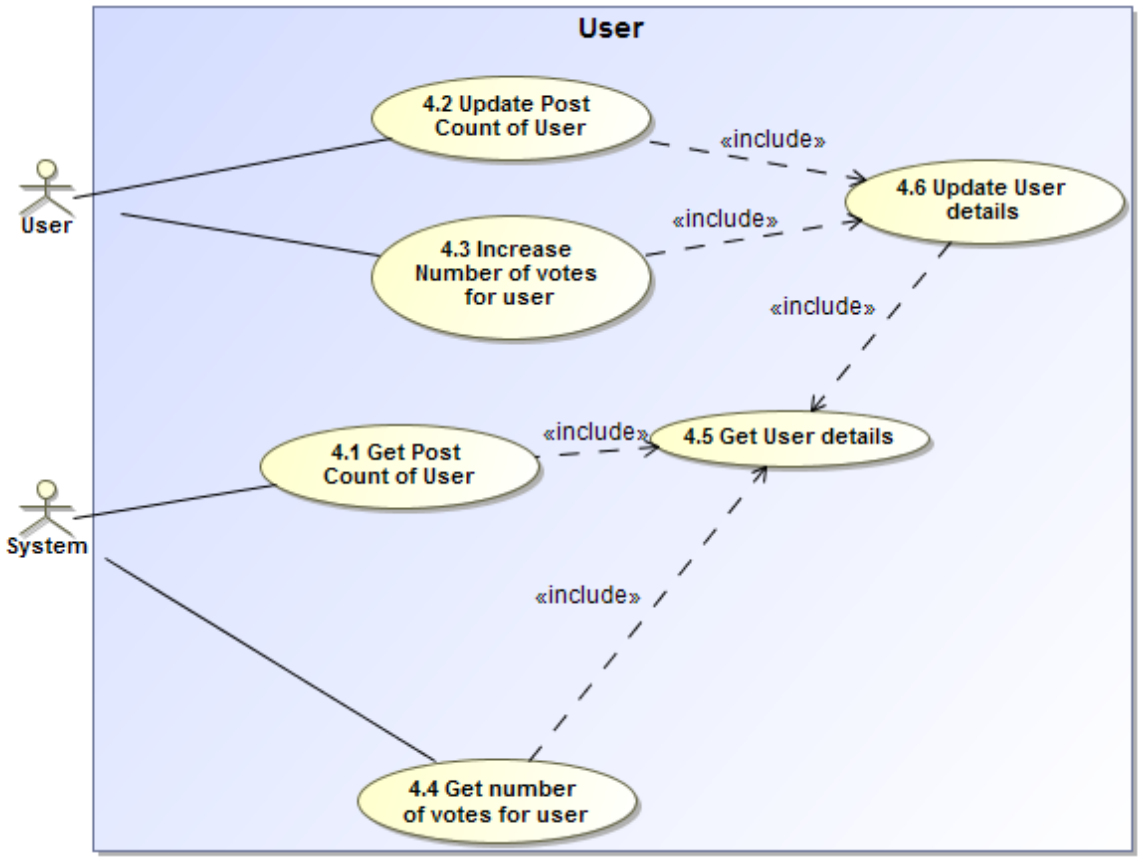

Figure 18: Tagging sub system use case diagram.

2.4 Process specifications

2.4.1 Authentication

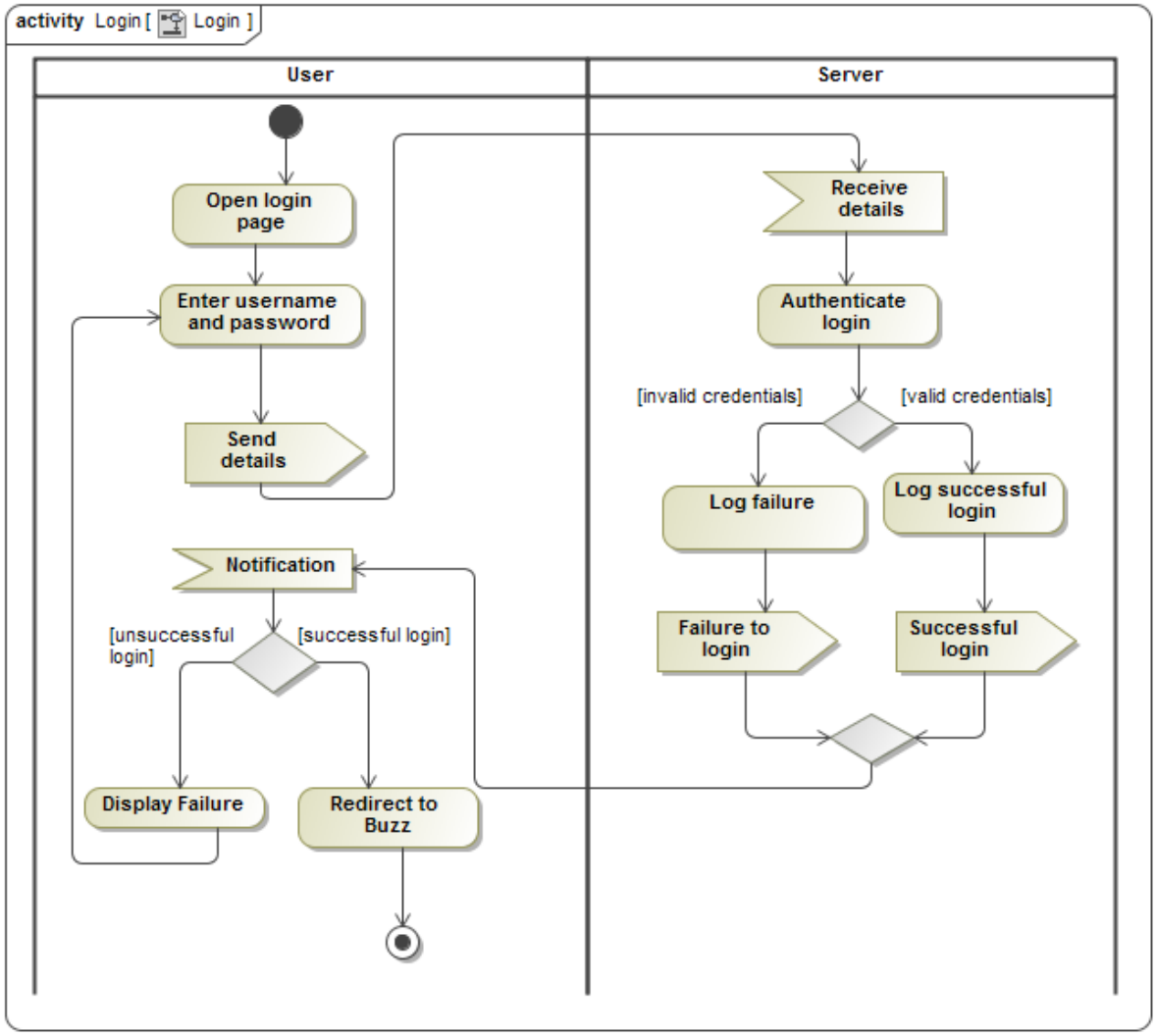

Figure 19: Loign activity diagram.

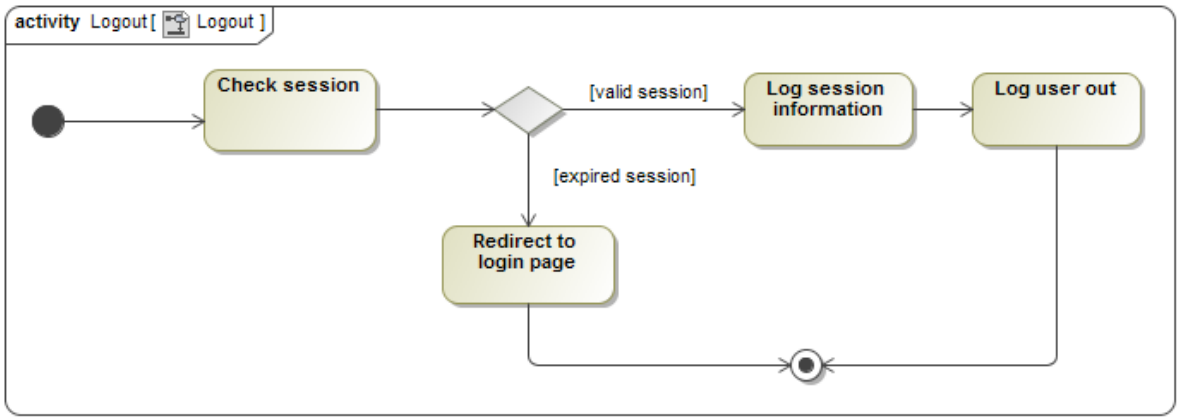

Figure 20: Logout activity diagram.

2.4.2 BuzzSpace

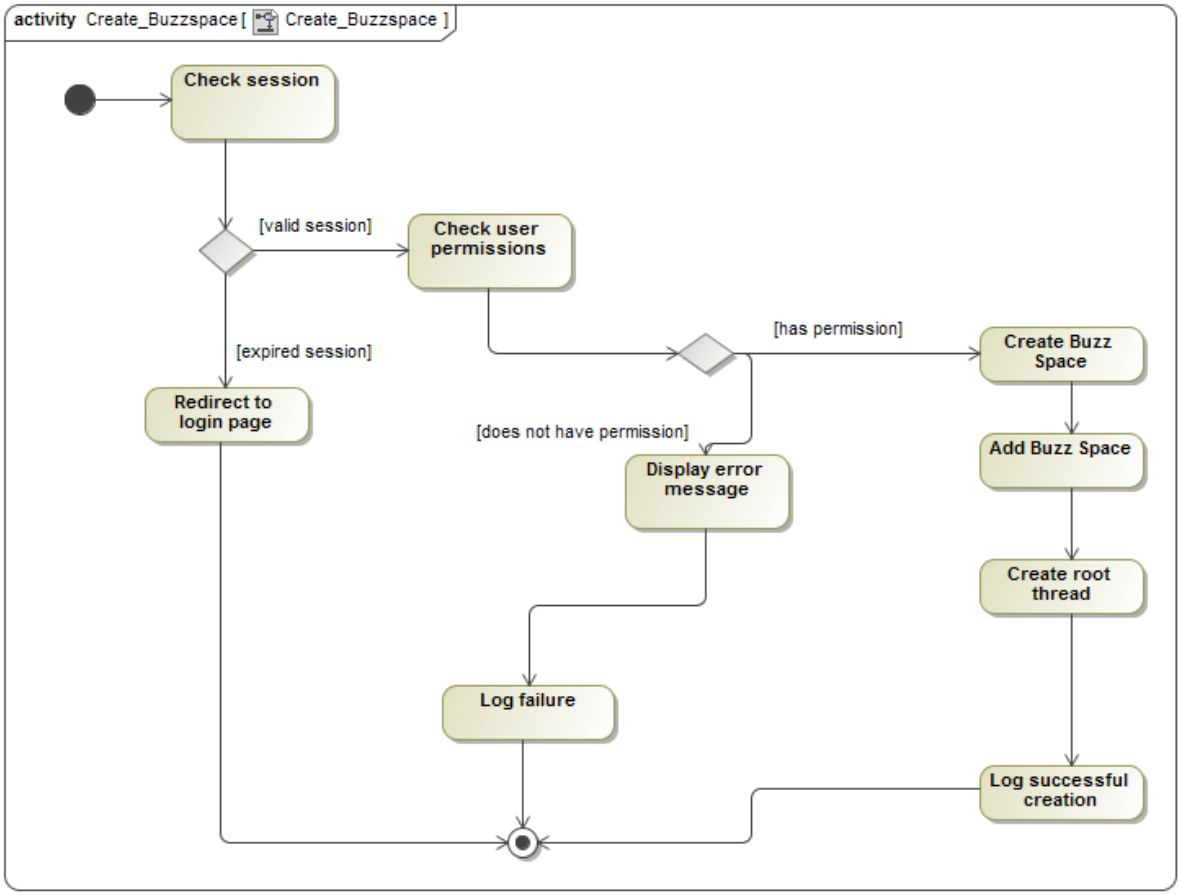

Figure 21: Create Buzzspace activity diagram.

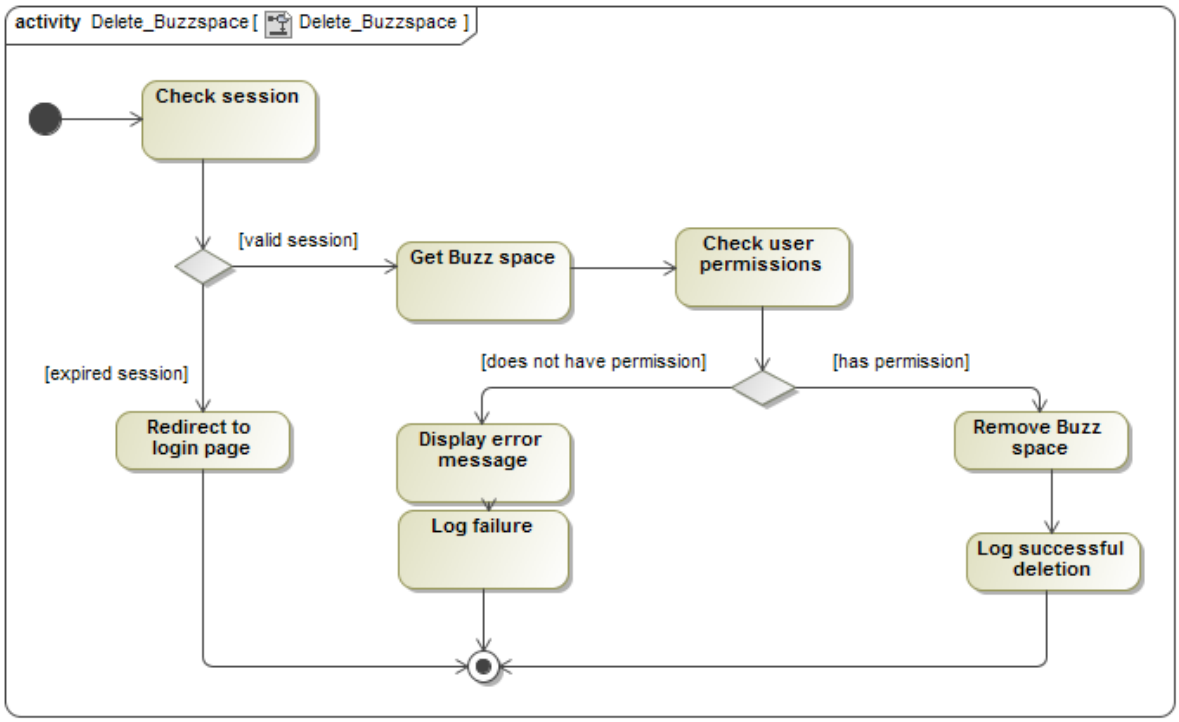

Figure 22: Delete Buzzspace activity diagram.

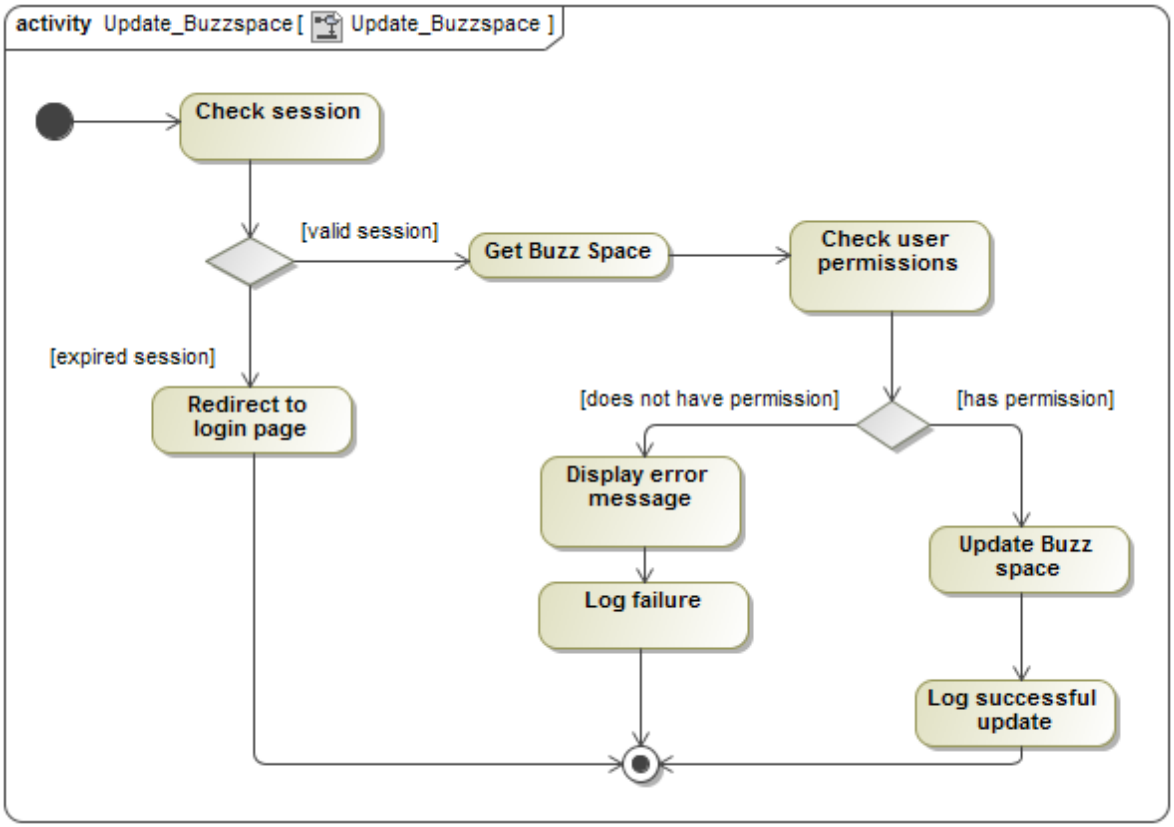

Figure 23: Update Buzzspace activity diagram.

2.4.3 Communication

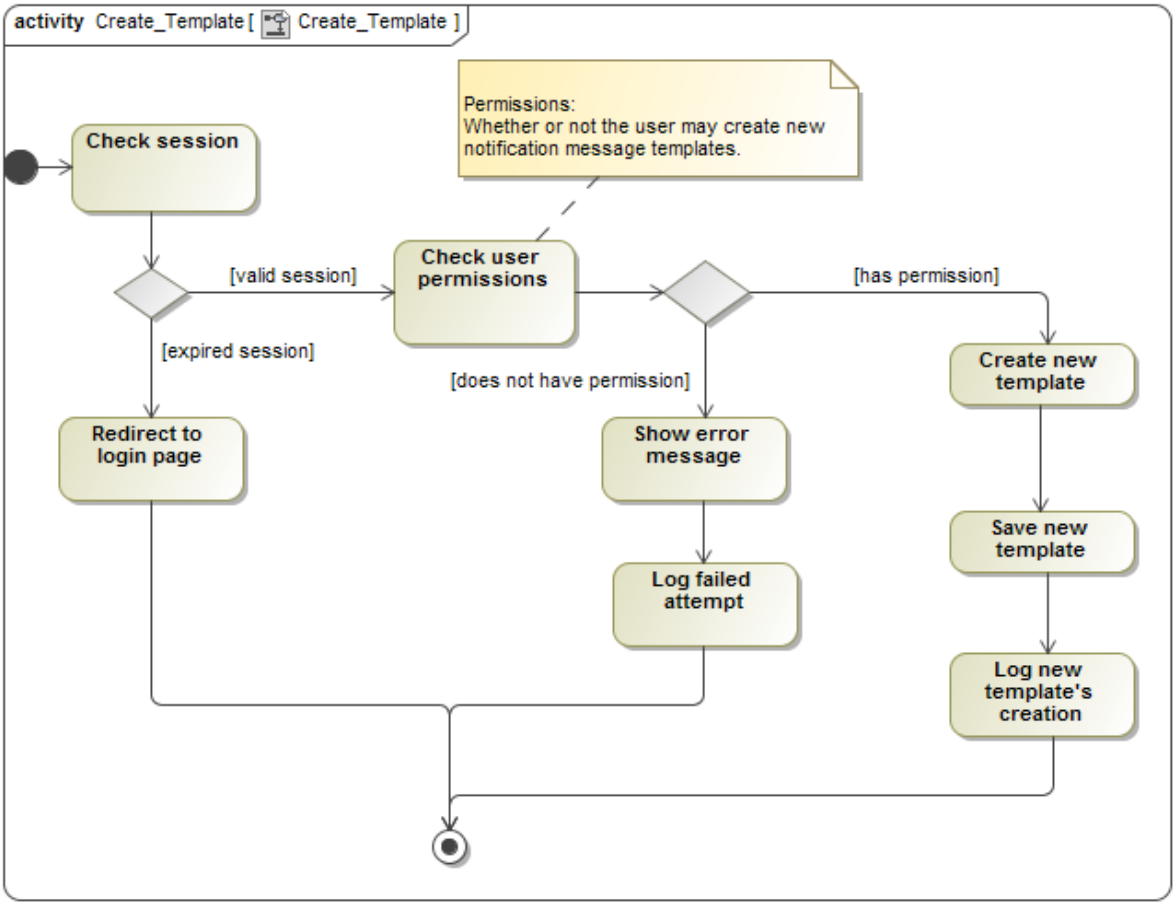

Figure 24: Create Template activity diagram.

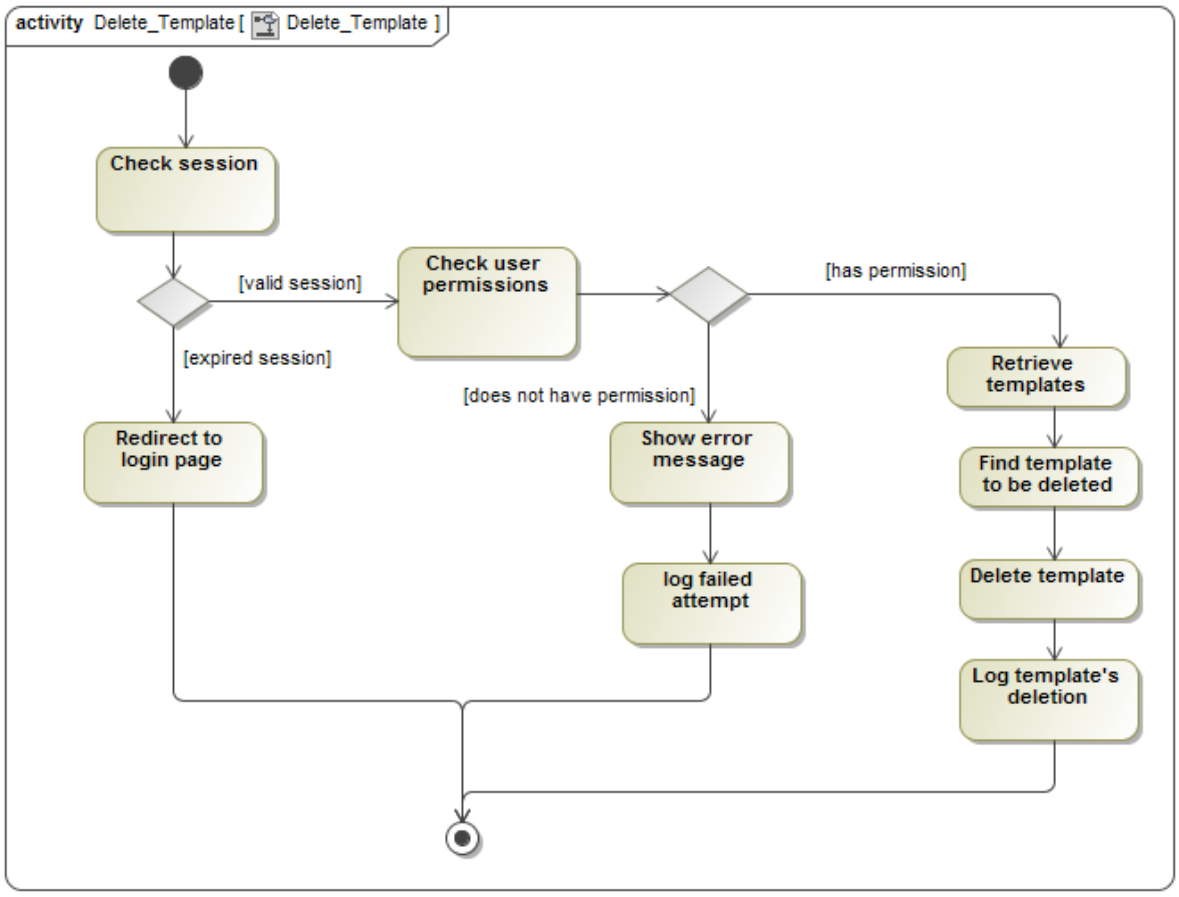

Figure 25: Delete Template activity diagram.

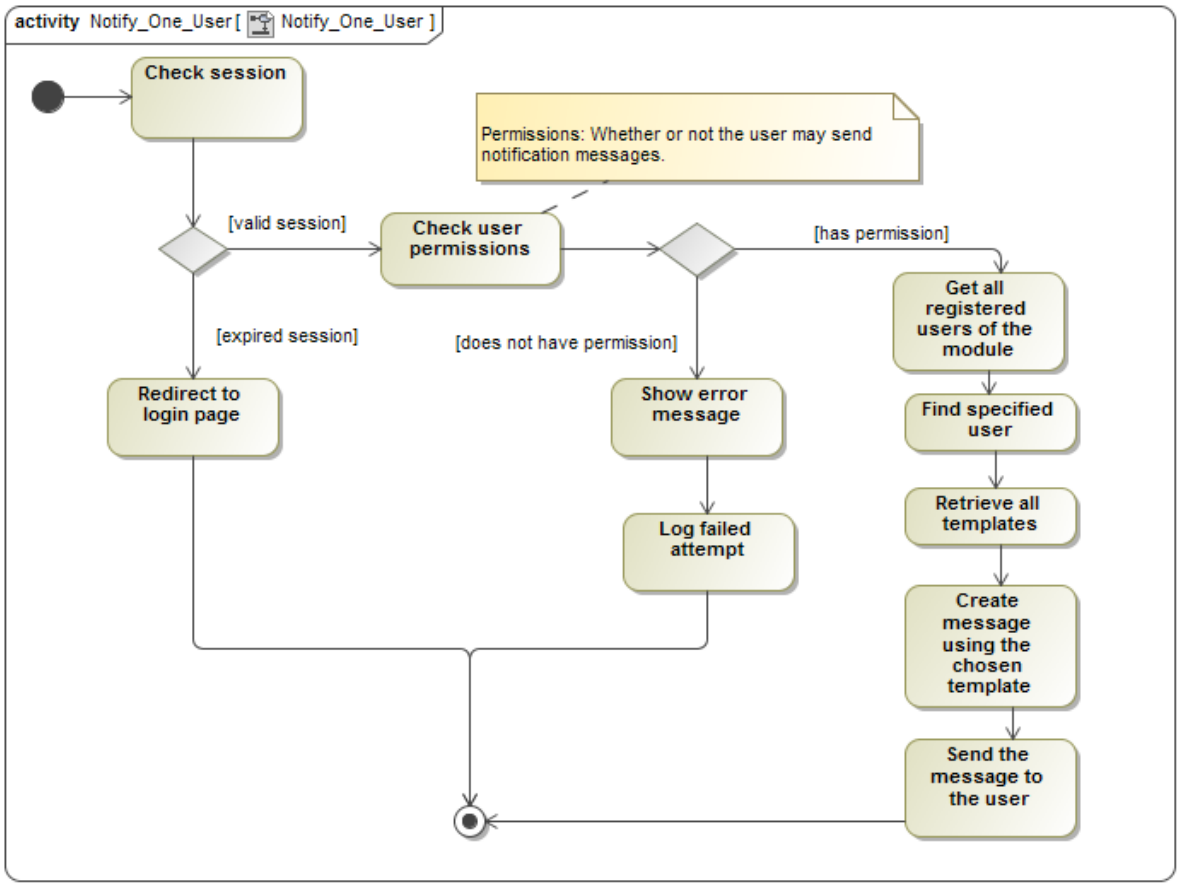

Figure 26: Notify One User activity diagram.

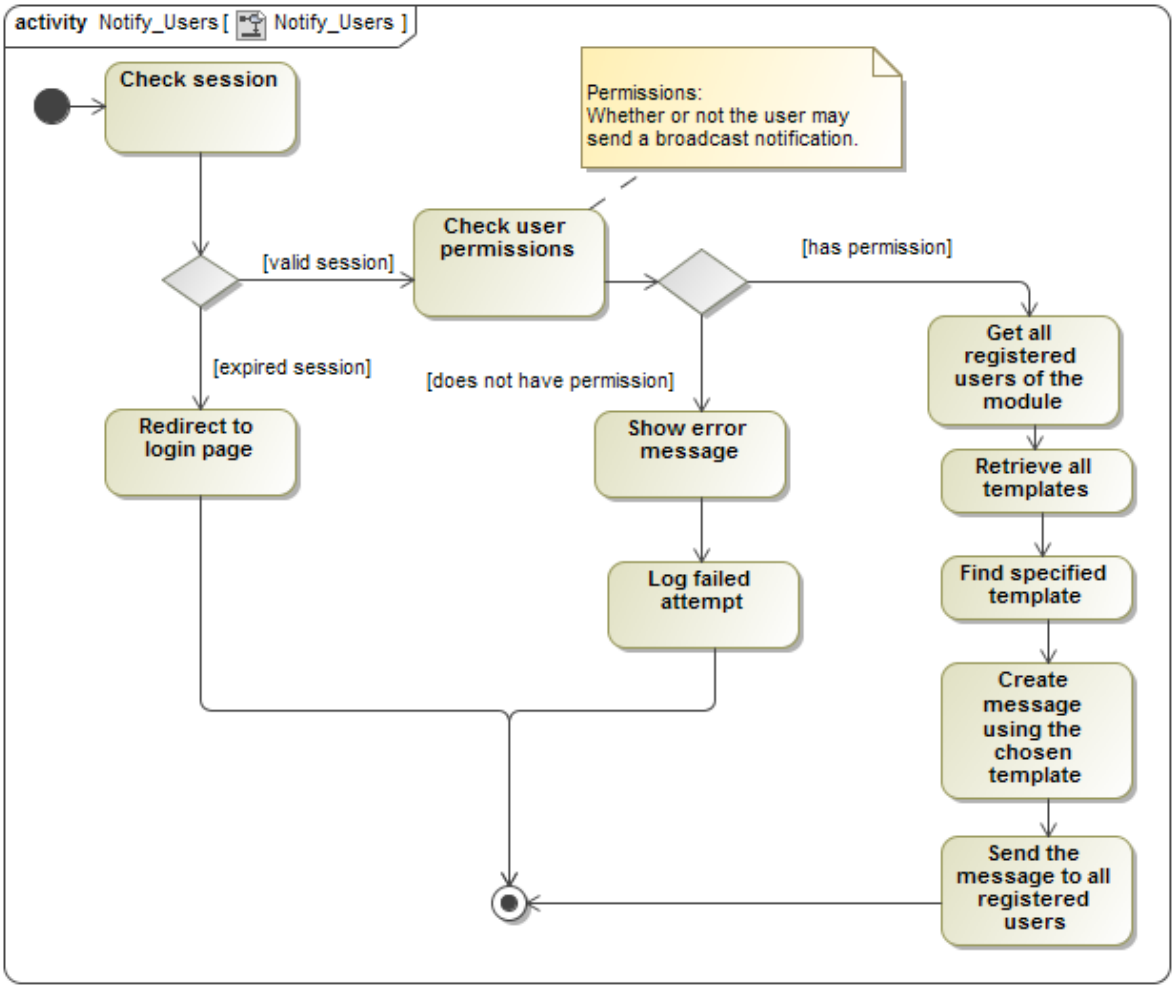

Figure 27: Notify Users activity diagram.

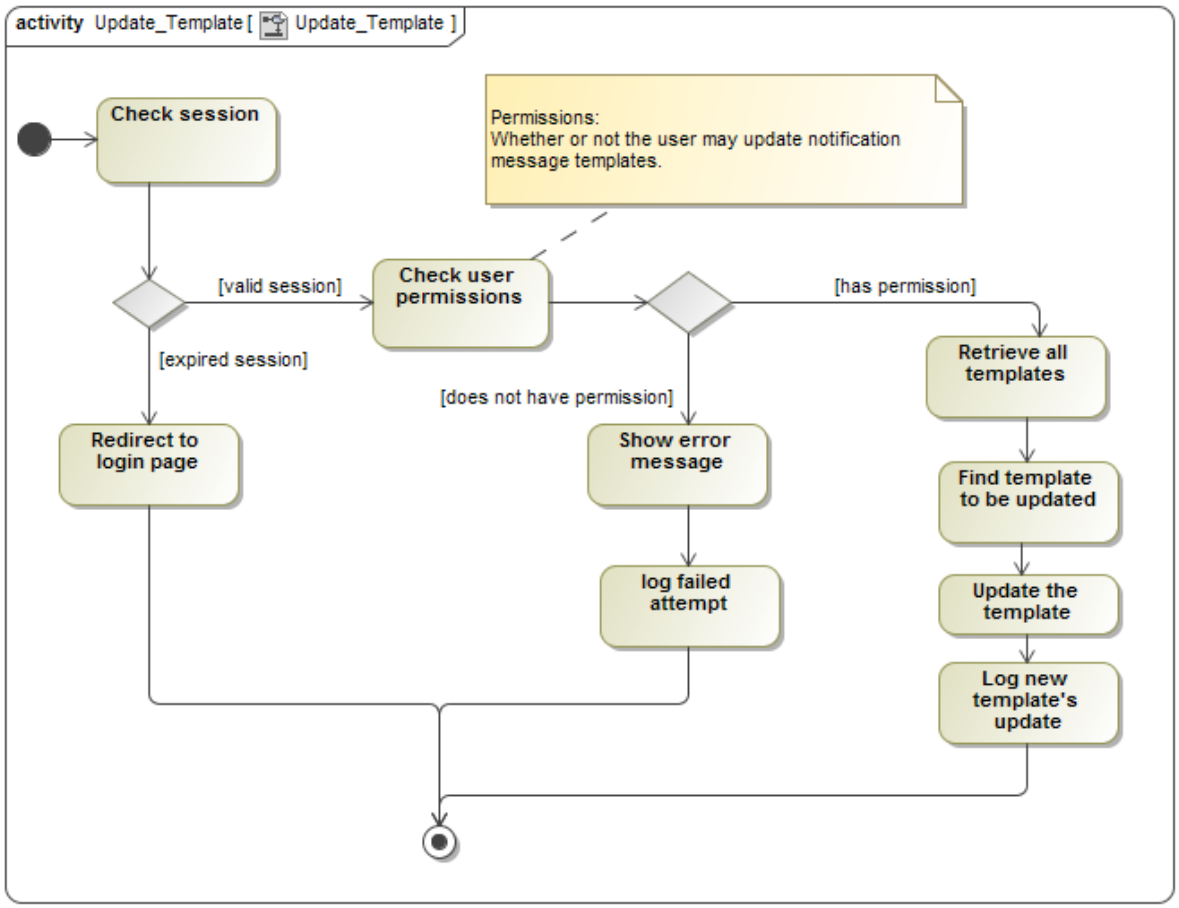

Figure 28: Update Template activity diagram.

2.4.4 Tagging

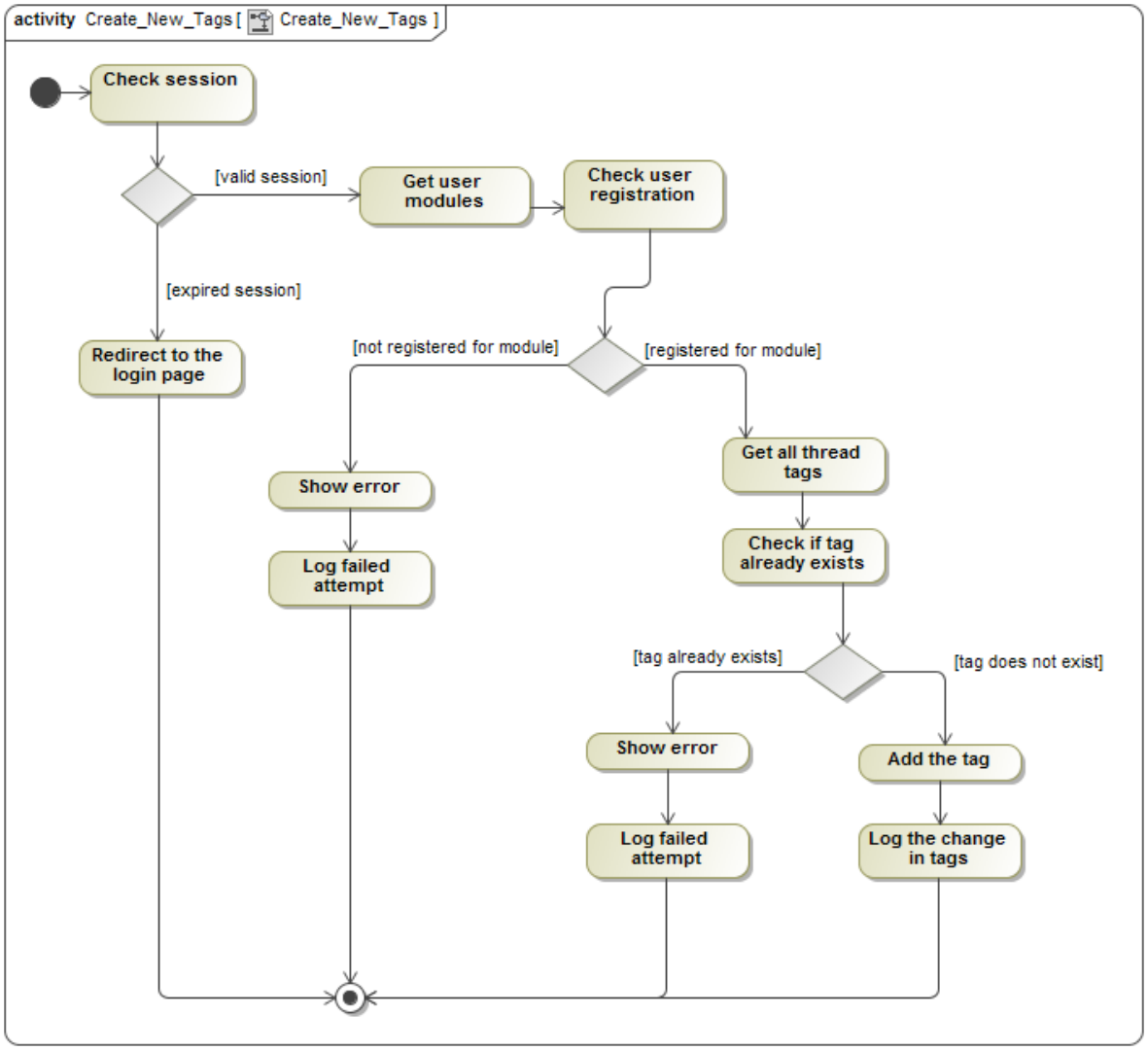

Figure 29: Create New Tags activity diagram.

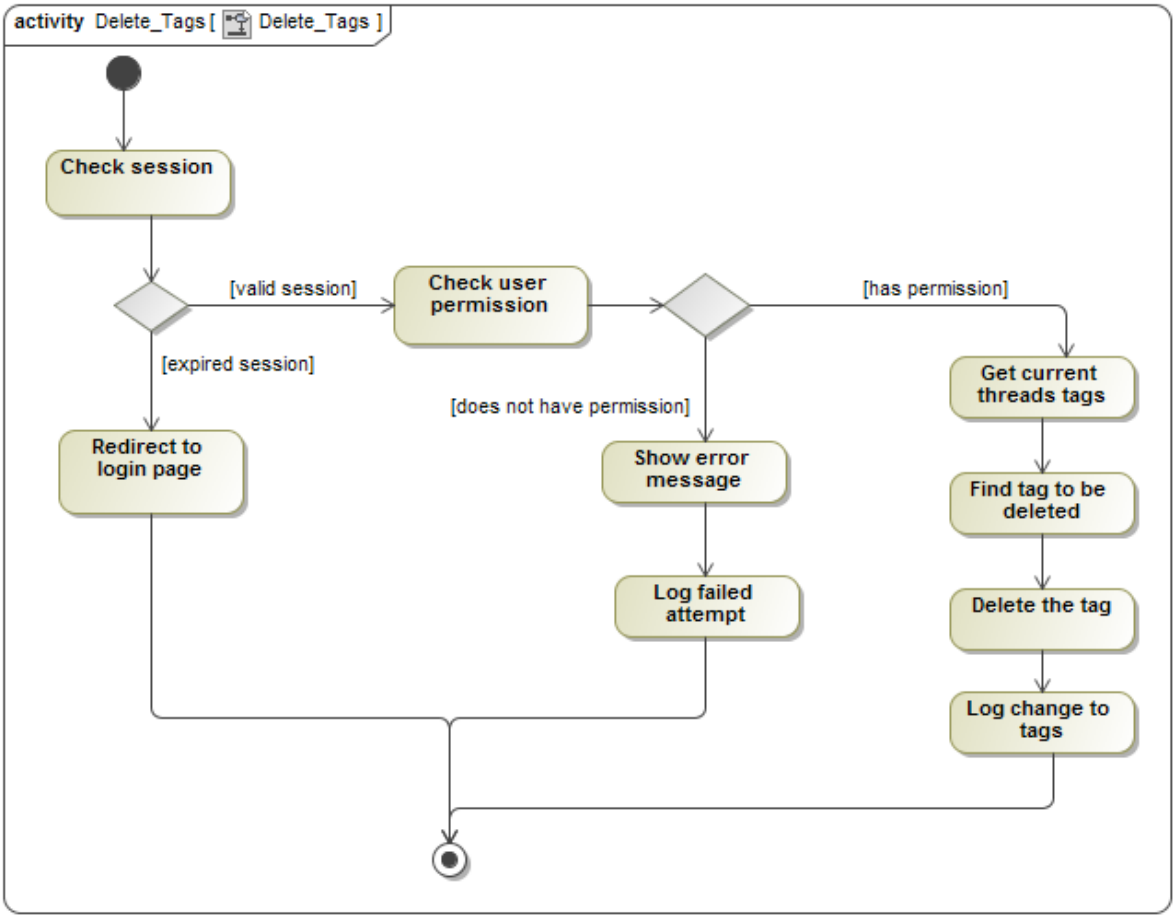

Figure 30: Delete Tags activity diagram.

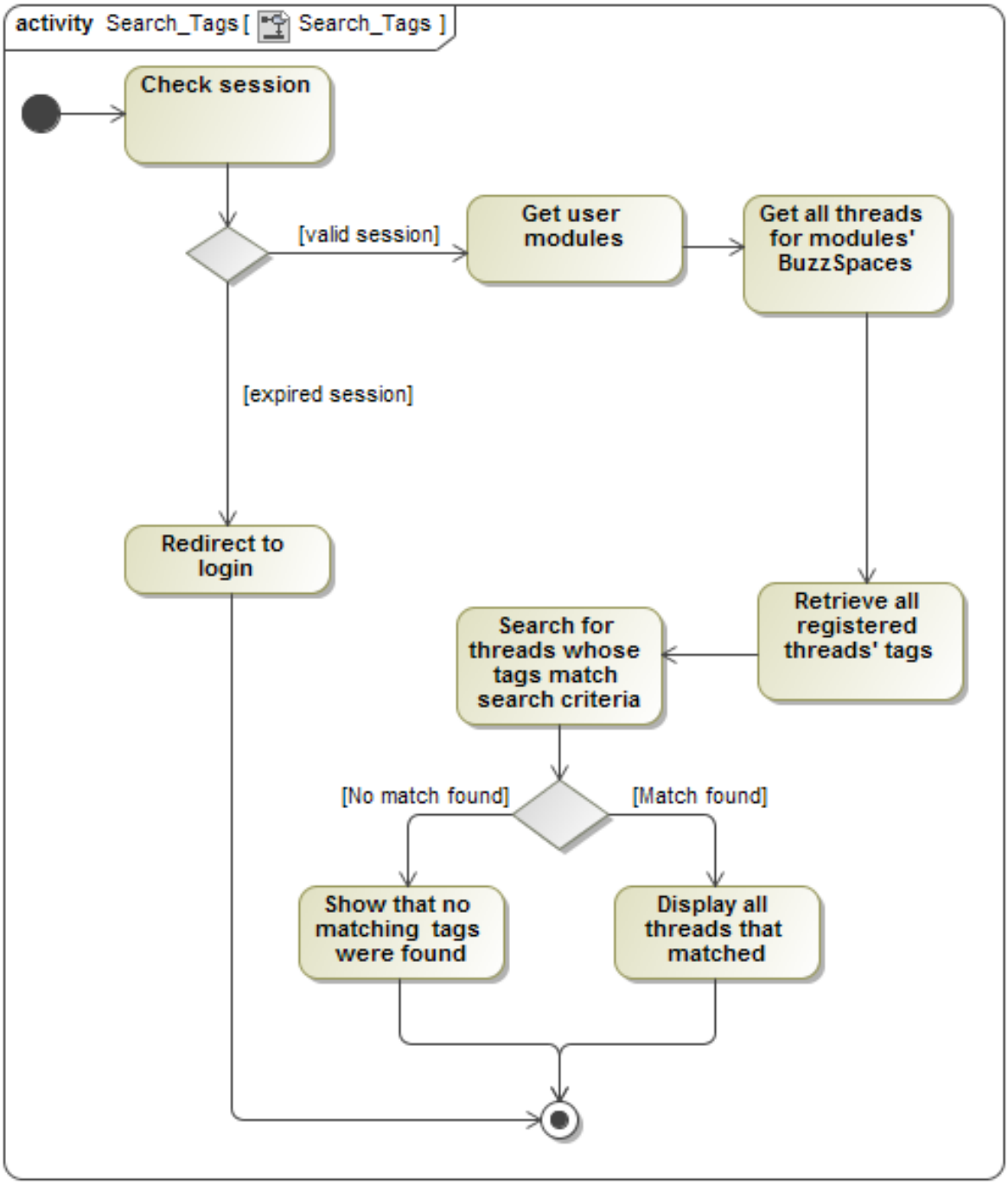

Figure 31: Search Tags activity diagram.

2.4.5 Thread

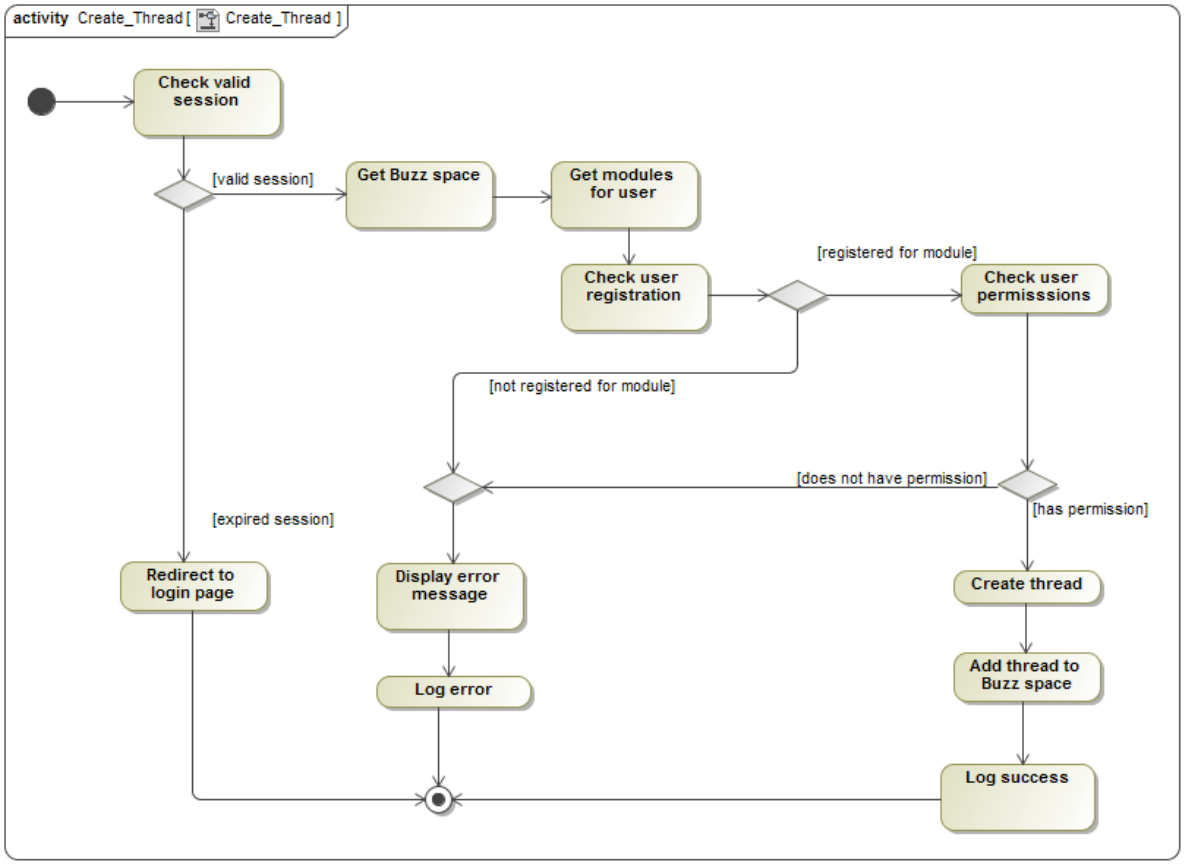

Figure 32: Create thread activity diagram.

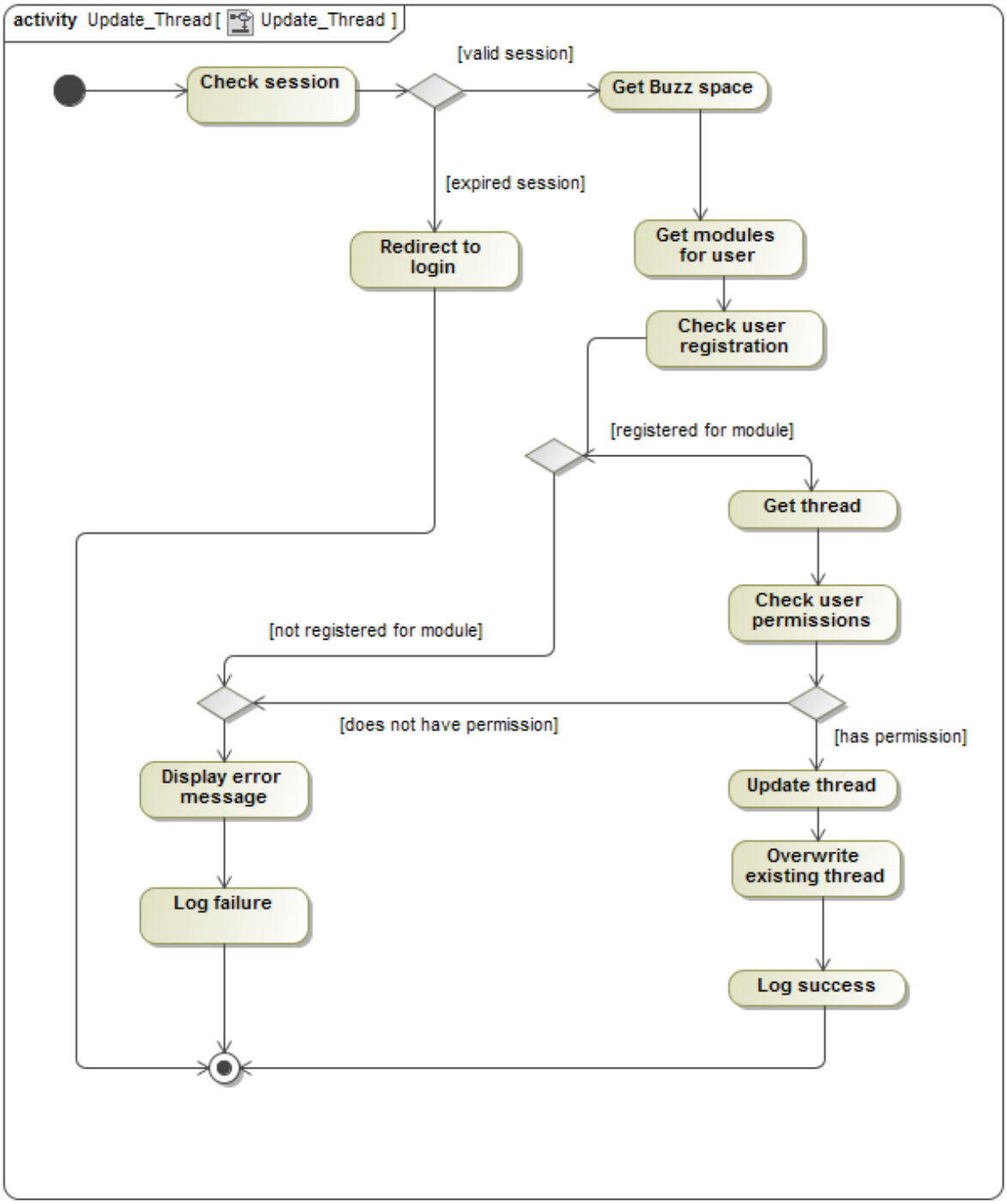

Figure 33: Update thread activity diagram.

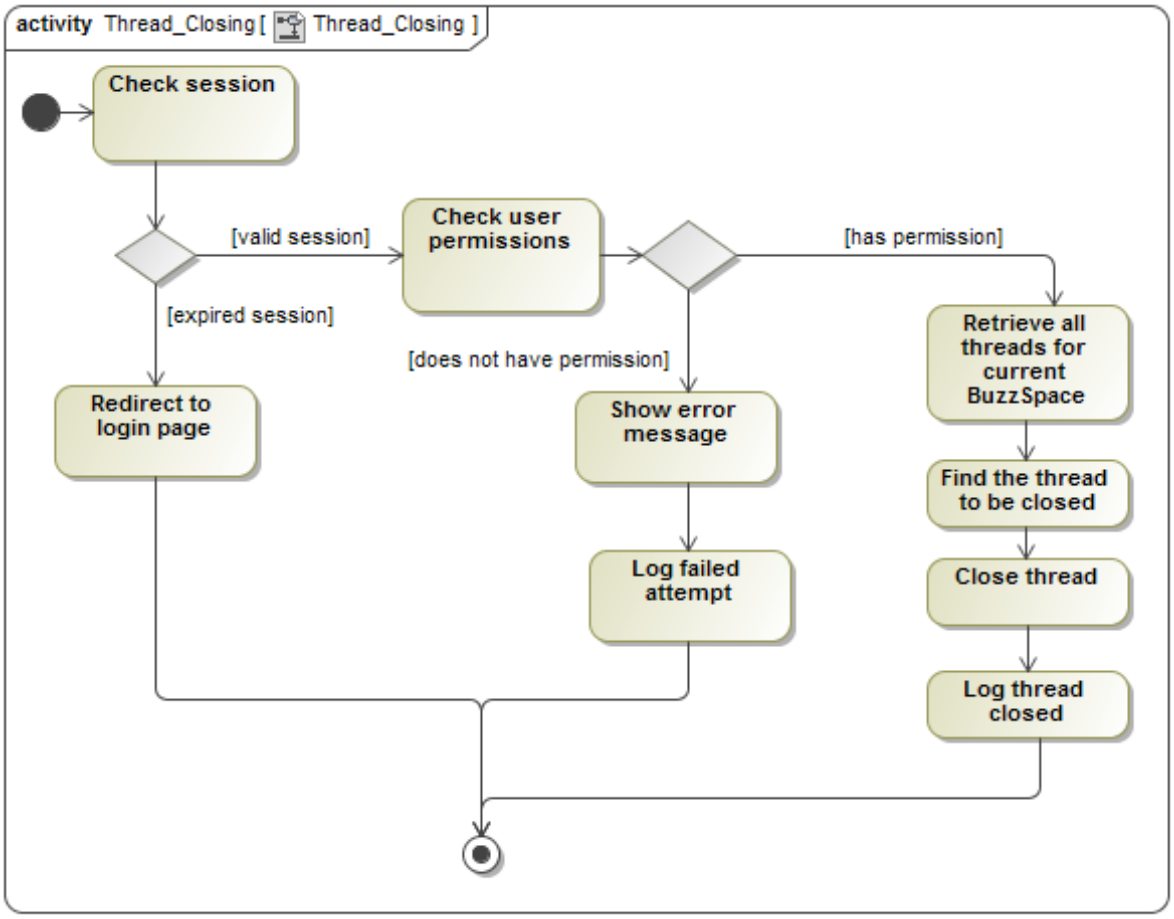

Figure 34: Close thread diagram.

2.4.6 Thread posts

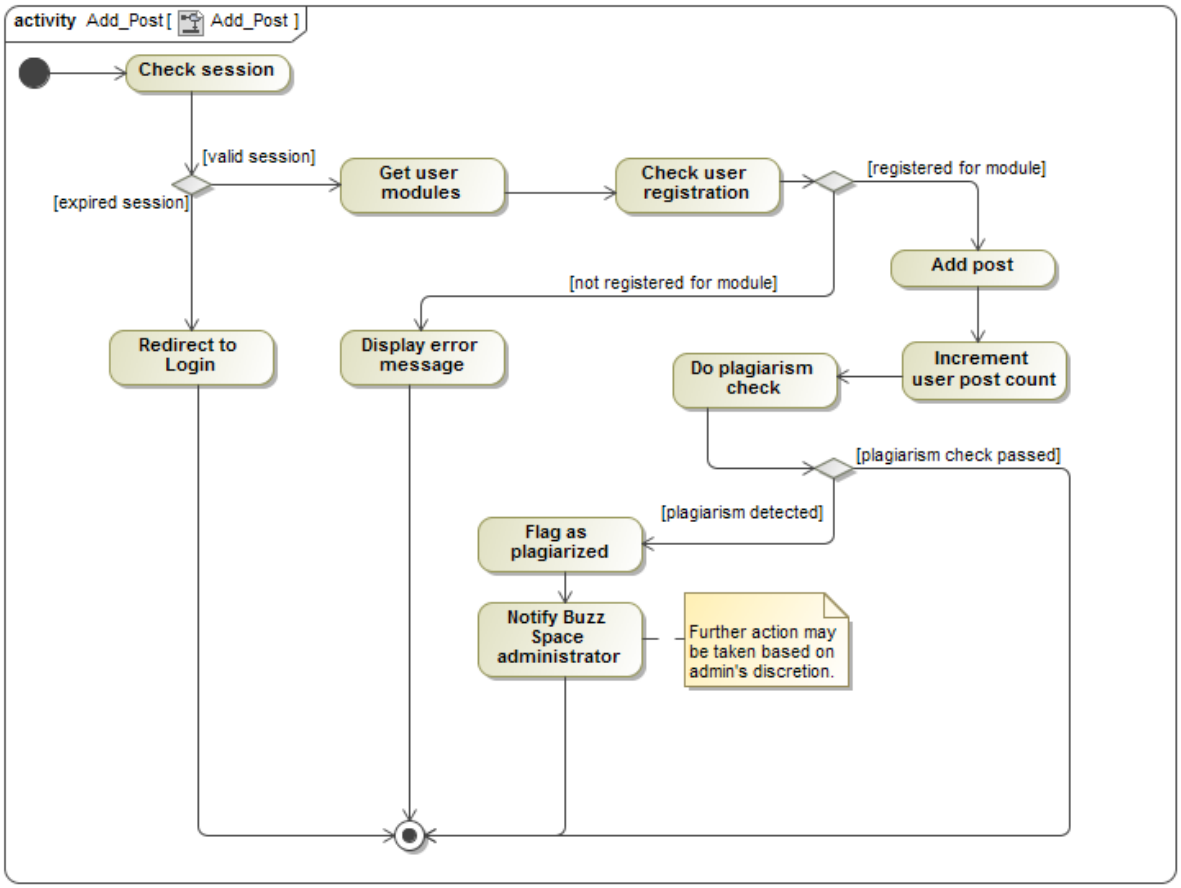

Figure 35: Add post to thread activity diagram.

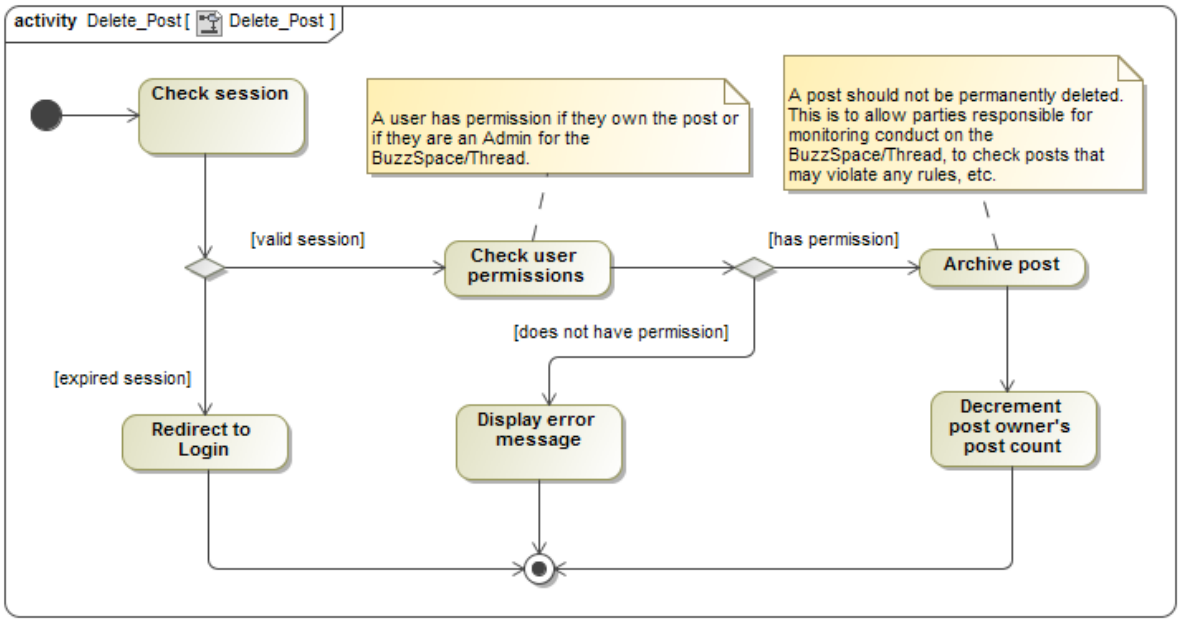

Figure 36: Delete thread post activity diagram.

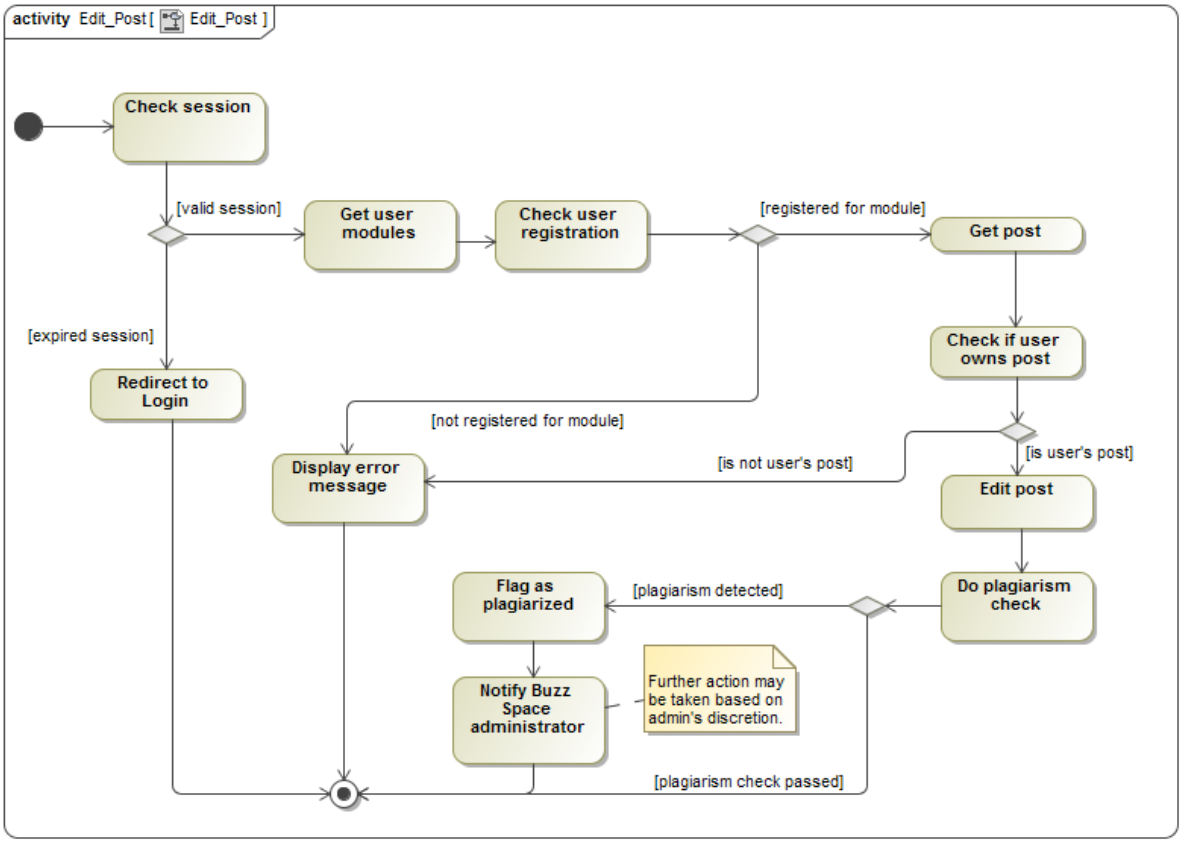

Figure 37: Edit thread post activity diagram.

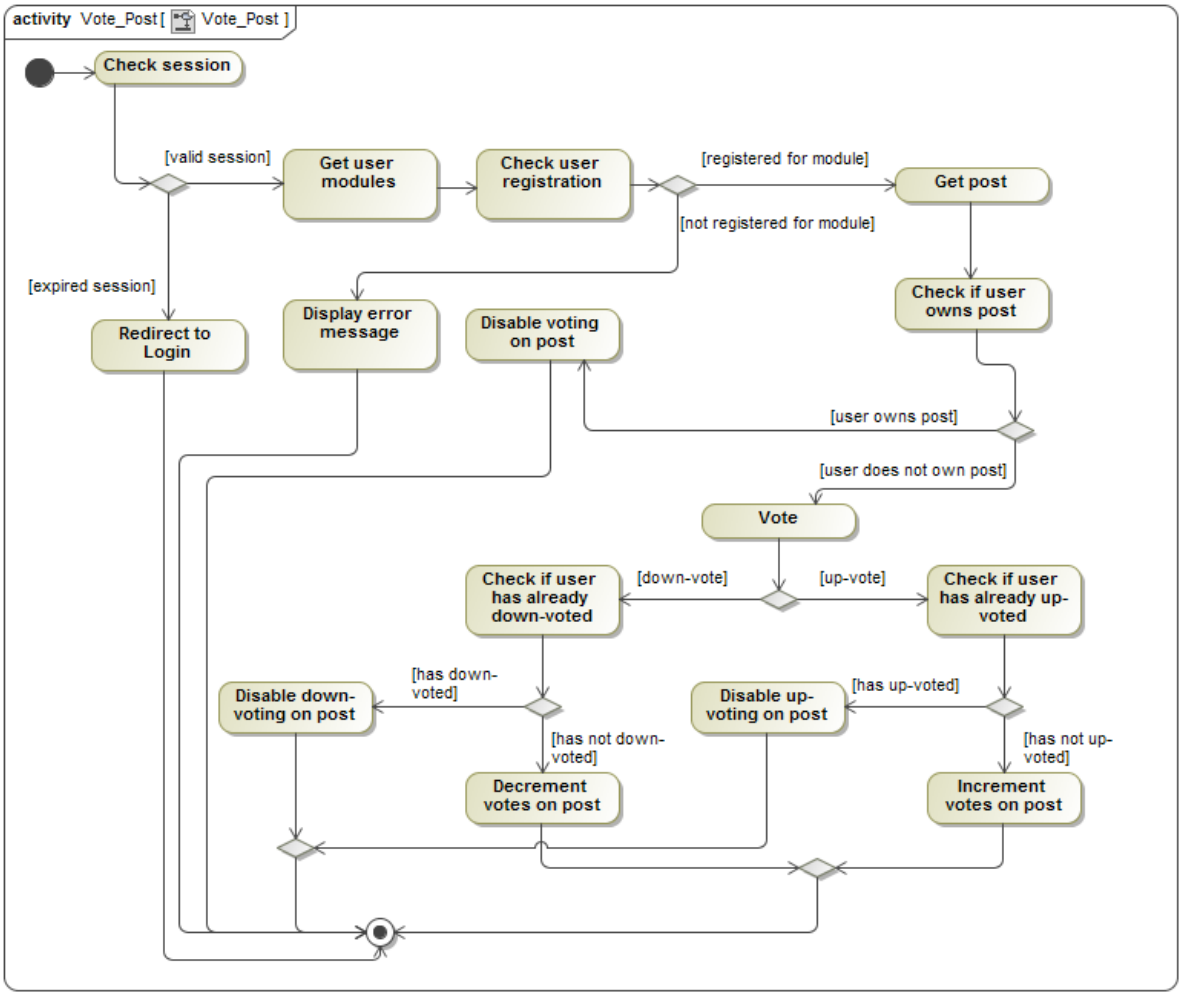

Figure 38: Vote for post activity diagram.

2.5 Domain Model

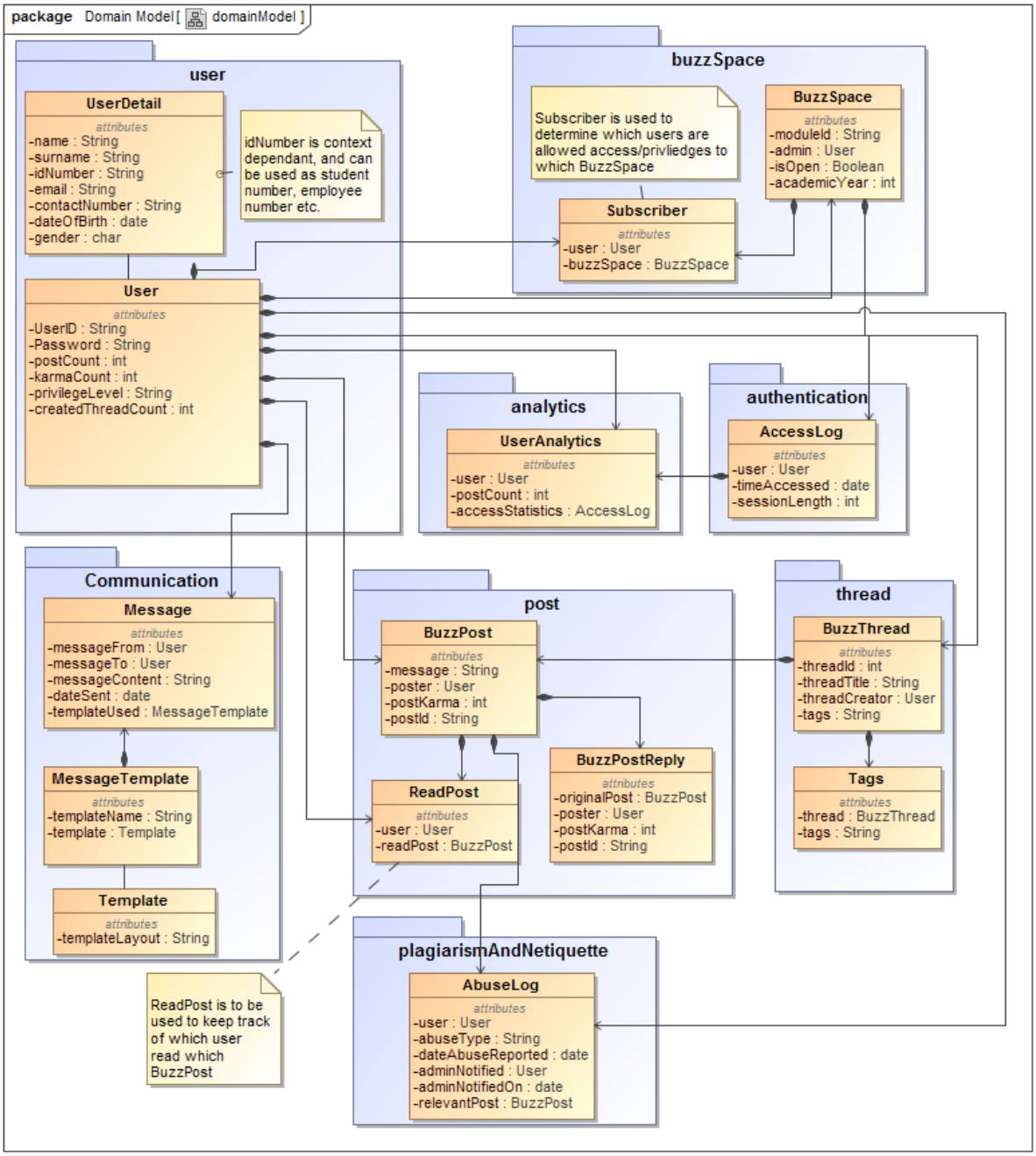

Figure 39: Domain model for the discussion board.