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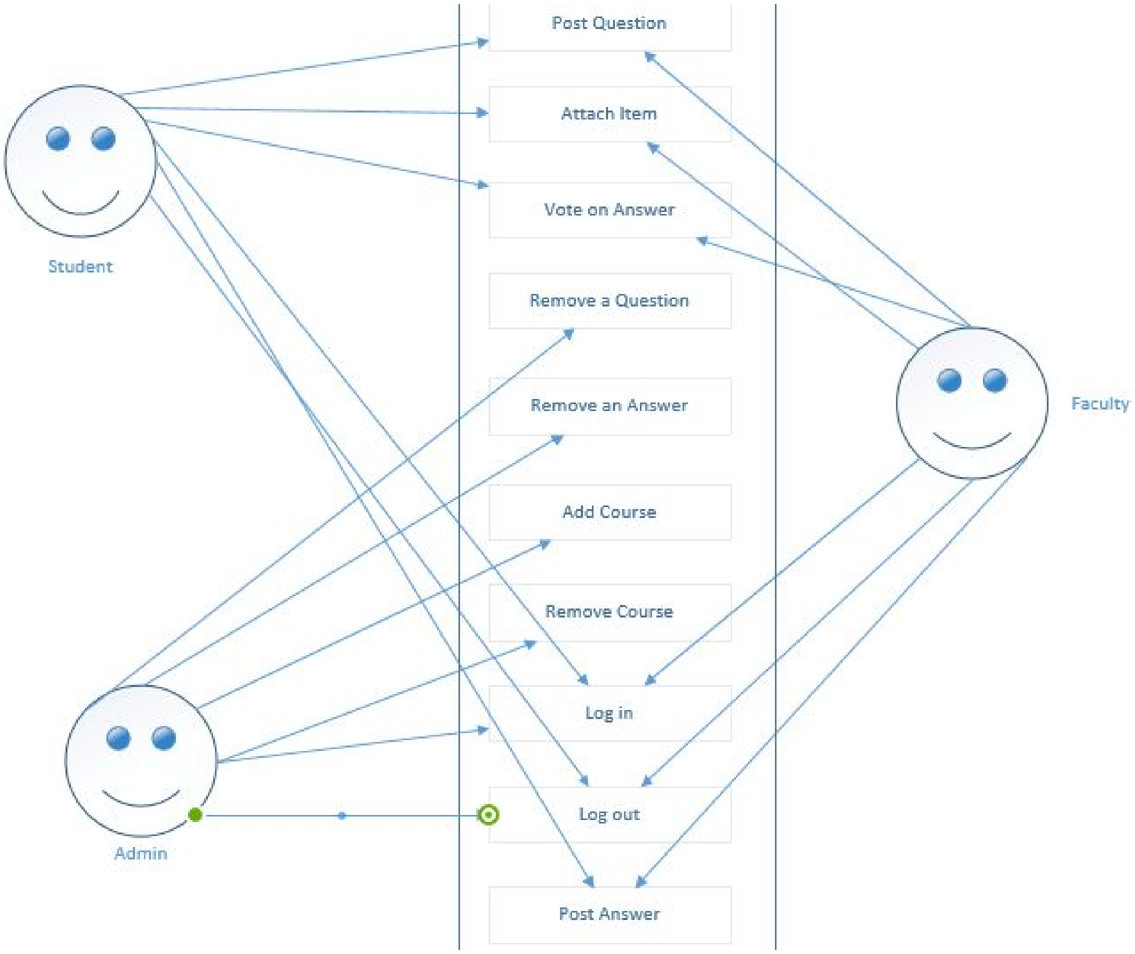
Use Case Model

We identified ten use cases in the figuring out the requirements for this project. The users are going to want to post a question, post an answer either with or without an attachment, vote on an answer, remove a question, and remove an answer. The admins are going to want to add and remove courses. All users are going to want to login and logout for tracking reasons.

Use Case Context Model



Fully Dressed Use Cases

Use Case 1: Post a Question
Scope: NKUNet application
Level: user goal
Primary Actor: Student, Faculty
Stakeholders and Interests:

- Student: Wants to be able to ask a question on a particular forum.

Preconditions: Student must be logged in and registered to a forum.

Success Guarantee: Question is posted. Student Users in the forum are able to vote on the question.

Main Success:

1. Student selects a forum to view.
2. System checks to make sure the student is in the class.
3. System allows Student to enter forum.
4. Student posts question in forum.
5. System creates timestamp for question.

Extensions:

*a. At any time, the System checks for login:

1. System checks for Student login.
   1a. Student is not logged in:
   1. System rejects Student from forum.
   2. System redirects Student to main page.
   3. System alerts Student to login.

2a. System sees that Student is not in class:

1. System rejects Student from forum.
2. System redirects Student to main page.
3. System alerts Student that they are not in the class.

4a. Student cancels posting question:

1. System alerts Student if they want to cancel post.
2. Student User decides on action.
   2a. Student accepts canceling post:
   1. System redirects Student to forum page.

   2b. Student declines canceling post:
   1. System redirects Student back to create post page.

Special Requirements:

- Student must be registered to class and section.

Frequency of Occurrence: Whenever a Student posts a question.

Use Case 2: Remove a Question

Scope: NKUNet application

Level: user goal

Primary Actor: Admin

Stakeholders and Interests:

- Admin: Wants to moderate a forum by removing an inappropriate/irrelevant question.

Preconditions: Admin must be logged in.

Success Guarantee: Inappropriate/Irrelevant question is removed from the forum.

Main Success:

1. Administrator enters a forum.
2. Administrator selects a question.
3. Administrator deletes question.

4. System deletes question and all associated answers.

Extensions:

*a. At any time, the System checks for login:

1. System checks for Admin login.

   1a. Admin is not logged in:

   1. System rejects Admin from entering forum.
   2. System redirects Admin to main page.
   3. System alerts Admin to login.

3a. Administrator decides to not delete question:

1. System notifies Administrator if deletion is final.

   1a. Administrator declines deletion:

   1. System redirects Administrator back to forum page.

Frequency of Occurrence: When necessary.

Use Case 3: Remove a Answer

Scope: NKUNet application

Level: user goal

Primary Actor: Admin

Stakeholders and Interests:

Admin: Wants to moderate a forum by removing an inappropriate/irrelevant answer.

Preconditions: Admin must be logged in.

Success Guarantee: Inappropriate/Irrelevant answer is removed from the forum.

Main Success:

1. Administrator enters a forum.
2. Administrator selects a question.
3. Administrator selects an answer.
4. System deletes answer and all related sub answers.

Extensions:

*a. At any time, the System checks for login:

1. System checks for Admin login.

   1a. Admin is not logged in:

   1. System rejects Admin from entering forum.
   2. System redirects Admin to main page.
   3. System alerts Admin to login.

4a. Administrator decides to not delete question:

2. System notifies Administrator if deletion is final.

   1a. Administrator declines deletion:

   2. System redirects Administrator back to forum page.

Frequency of Occurrence: When necessary.

Use Case 4: Post answer to a question

Scope: NKUNet application

Level: user goal

Primary actor: Student, Faculty

Stakeholders and Interests:

- Student: wants to be able to answer a question on a forum.

Preconditions: Student must be logged in and registered to a forum.

Success Guarantee: Answer is posted. Student Users in the forum are able to vote on the question.

Main Success:

1. Student selects a forum to view.
2. System checks to make sure the student is in the class.
3. System allows Student to enter forum.
4. Student posts answer to a question.
5. System creates timestamp for answer.

Extensions:

*a. At any time, the System checks for login:

1. System checks for Student login.
   1a. Student is not logged in:
   1. System rejects Student from forum.
   2. System redirects Student to main page.
   3. System alerts Student to login.

2a. System sees that Student is not in class:

1. System rejects Student from forum.
2. System redirects Student to main page.
3. System alerts Student that they are not in the class.

4a. Student cancels posting answer:

1. System alerts Student if they want to cancel post.
2. Student User decides on action.
   2a. Student accepts canceling post:
   1. System redirects Student to forum page.

   2b. Student declines canceling post:
   1. System redirects Student back to create post page.

Special Requirements:

- Student must be registered to class and section.

Frequency of Occurrence: Whenever a Student answers a question.

Use Case 5: Attach item

Scope: NKUNet application

Level: user goal

Primary actor: Student, Faculty

Stakeholders and Interests:

- Student: wants to be able to attach an item to answer a question on a forum.

Preconditions: Student must be logged in and registered to a forum.

Success Guarantee: Answer is posted with attachment. Student Users in the forum are able to vote on the question.

Main Success:

1. Student selects a forum to view.
2. System checks to make sure the student is in the class.
3. System allows Student to enter forum.

4. Student attaches document to question
5. Student posts answer to a question with attachment.
6. System creates timestamp for answer.

Extensions:

4a. System detects the attachment is not compatible

    1. System warns about incompatible attachment
    2. System redirects back to question

Use Case 6: Vote on answer/queston

Scope: NKUNet application

Level: user goal

Primary actor: Student, Faculty

Stakeholders and Interests:

- Student: wants to be able to vote on an answer or question.

Preconditions: Student must be logged in and registered to a forum.

Success Guarantee: Vote is recorded. Vote count is updated in the system.

Main Success:

1. Student selects a forum to view.
2. System checks to make sure the student is in the class.
3. System allows Student to enter forum.
4. Students votes up or down on a question/answer
5. Post reflects the vote.

Extensions:

*a. At any time, the System checks for login:

2. System checks for Student login.

    1a. Student is not logged in:

    4. System rejects Student from forum.
    5. System redirects Student to main page.
    6. System alerts Student to login.

2a. System sees that Student is not in class:

4. System rejects Student from forum.
5. System redirects Student to main page.
6. System alerts Student that they are not in the class.

Use Case 7: Add Courses

Scope: NKUNet application

Level: user goal

Primary actor: Admin

Stakeholders and Interests:

- Student:

Preconditions: Admin must be logged in.

Success Guarantee: Course is entered and ready to have questions posted.

Main Success:

1. Admin selects new course
2. Admin enters details about the course
3. System checks if course is not already registered
4. System adds course

Extensions:
*a. At any time, the System checks for login:
1. System checks for Admin login.
    1a. Admin is not logged in:
    1. System rejects Admin from entering forum.
    2. System redirects Admin to main page.
    3. System alerts Admin to login.

Frequency of Occurrence: When necessary.

Use Case 8: Delete Courses

Scope: NKUNet application
Level: user goal
Primary actor: Admin
Stakeholders and Interests:
- Student:

Preconditions: Admin must be logged in.
Success Guarantee: Course and it's associated questions are deleted.
Main Success:
1. Admin selects a course
2. Admin selects the option to delete course
3. System warns about deleting the course
4. Admin chooses to delete course
5. System removes all posts associated with course
6. System removes the course

Extensions:
*a. At any time, the System checks for login:
1. System checks for Admin login.
    1a. Admin is not logged in:
    1. System rejects Admin from entering forum.
    2. System redirects Admin to main page.
    3. System alerts Admin to login.

Frequency of Occurrence: When necessary.

Remaining Use Cases

Use Case 9: Log in

Scope: NKUNet application
Level: user goal
Primary actor: Admin, Faculty, Student

Stakeholders and Interests:

- -Student: wants to login & have a record of what questions/answers has been posted
- -Faculty: wants to login & have a record of what questions/answers has been posted
- -Admin: wants to login & have a record of what questions/answers has been posted

Preconditions: user is not signed in
Success Guarantee: successful login
Main Success:

1. User clicks sign in
2. User enters username and password
3. User clicks sign in
4. System logs in

Use Case 10: Log out

Scope: NKUNet application
Level: user goal
Primary actor: Admin, Faculty, Student
Stakeholders and Interests:

- -Student: wants to be able to logout of their account
- -Faculty: wants to be able to logout of their account
- -Admin: wants to be able to logout of their account

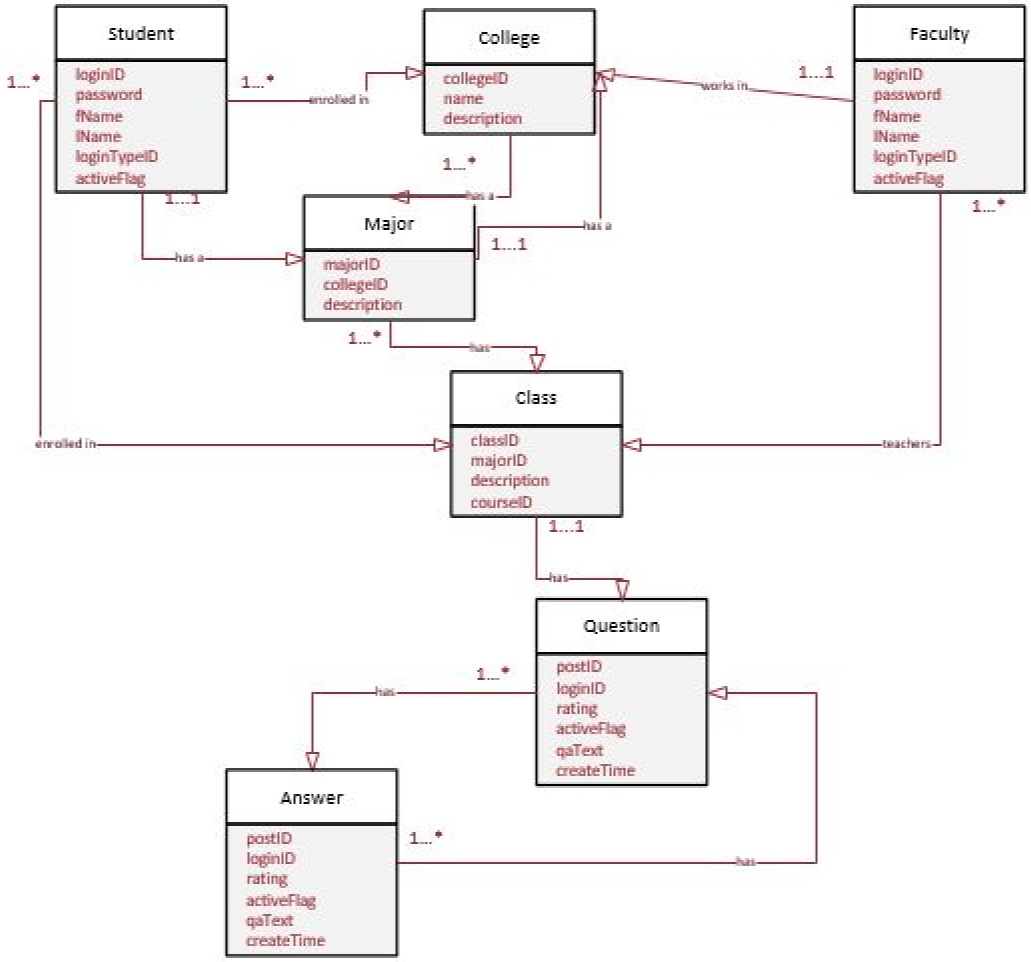
Preconditions: already be logged in
Success Guarantee: successful logout
Main Success:

1. User clicks logout
2. System logs out

Analysis of Requirement

For this iteration of the project we have identified four use cases that we are going to implement. Those are post question, post answer, remove question, and remove answer.

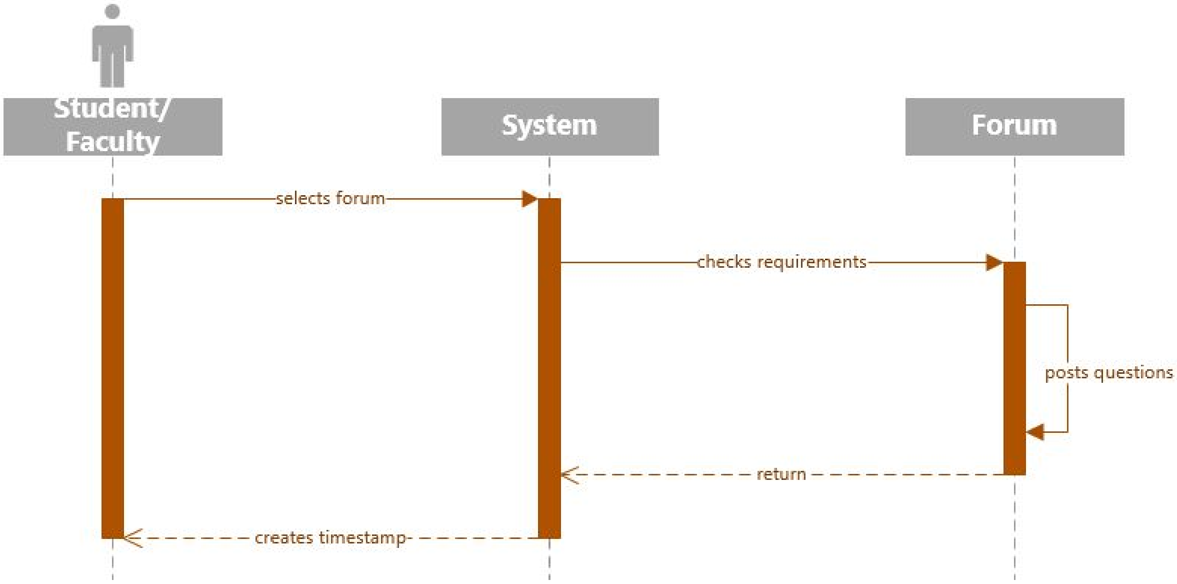
Domain Model



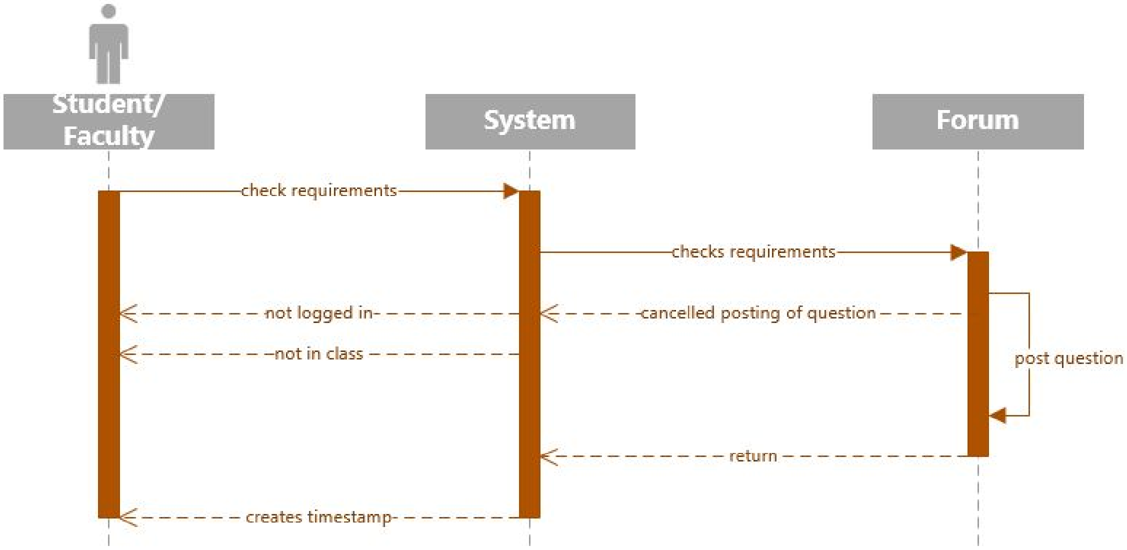
System Sequence Diagrams

Below are the SSD’s for the implemented use cases for this iteration

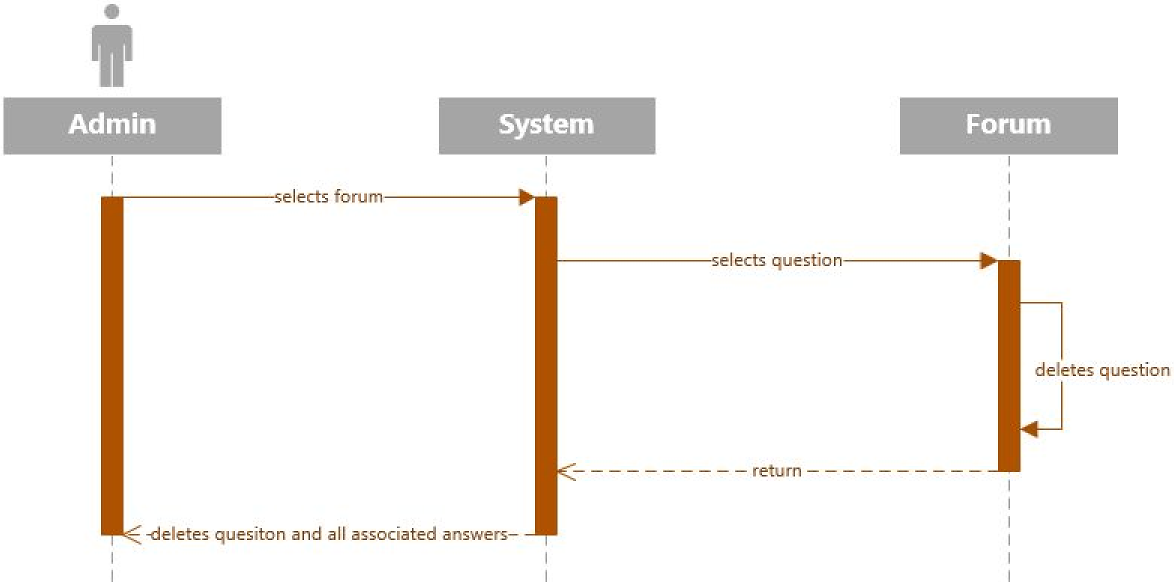
UC1: Post Question



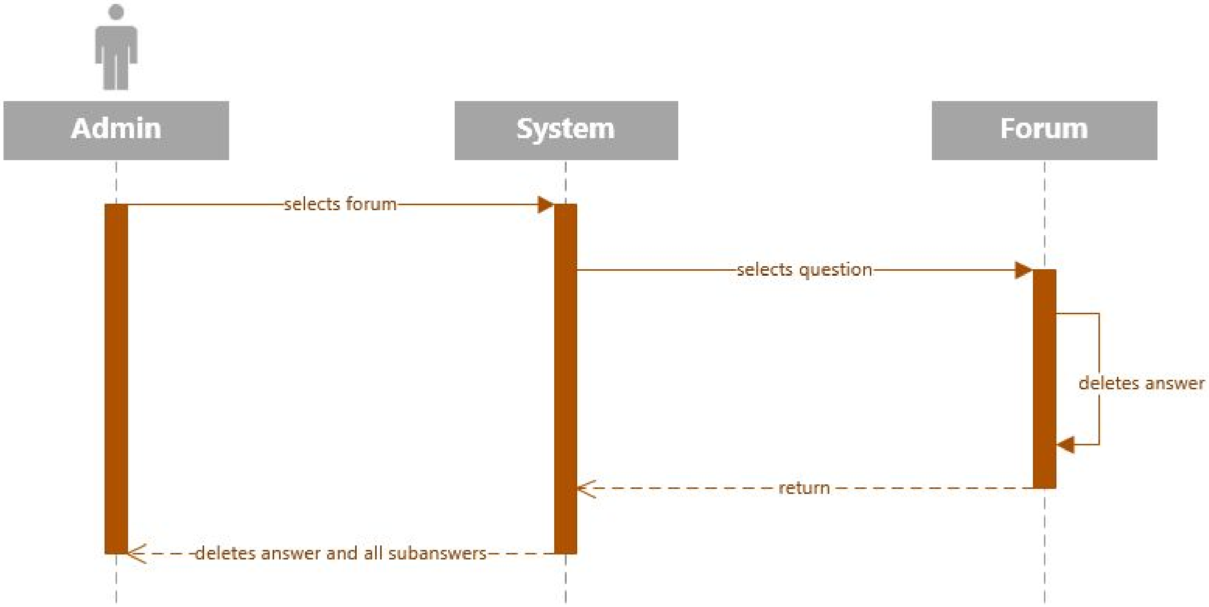
UC1: Post Question Extentions



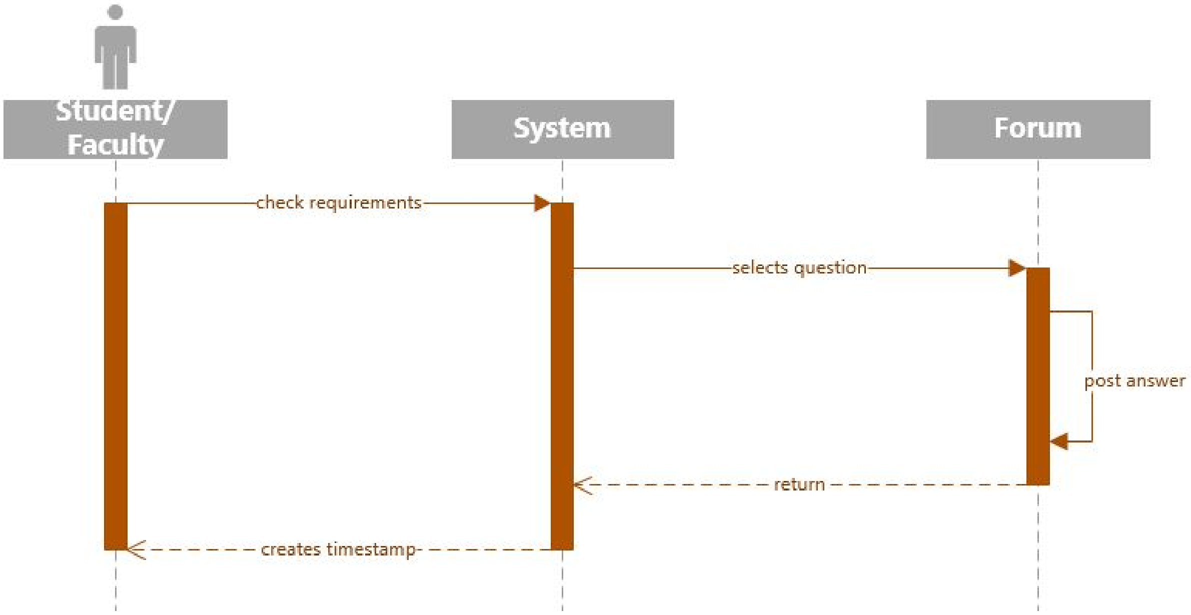
UC2: Delete Question



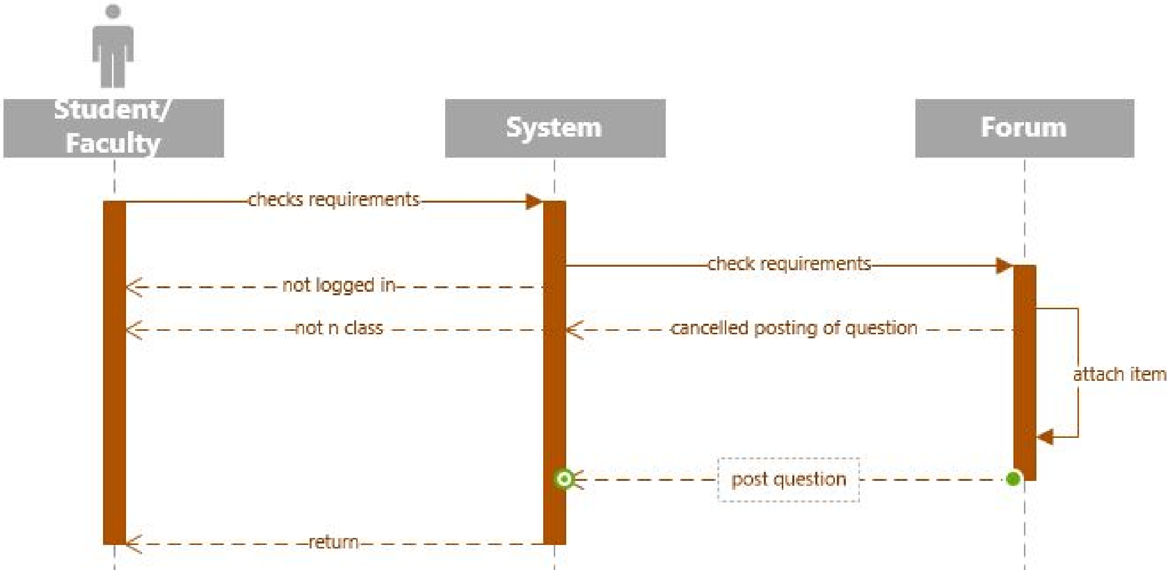
UC3: Delete Answer



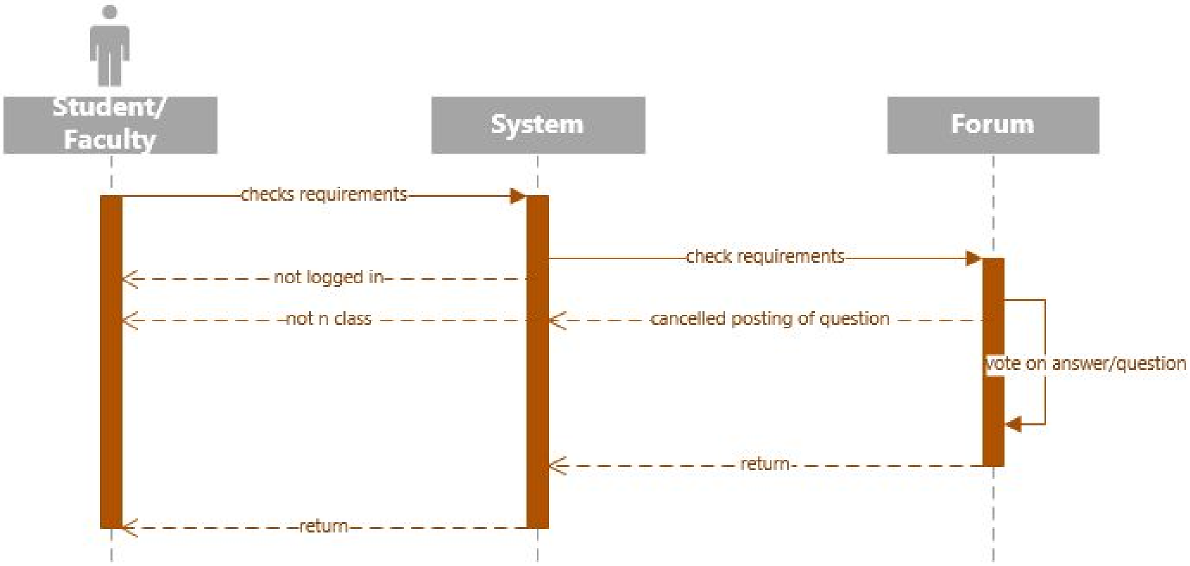
UC4: Post Answer



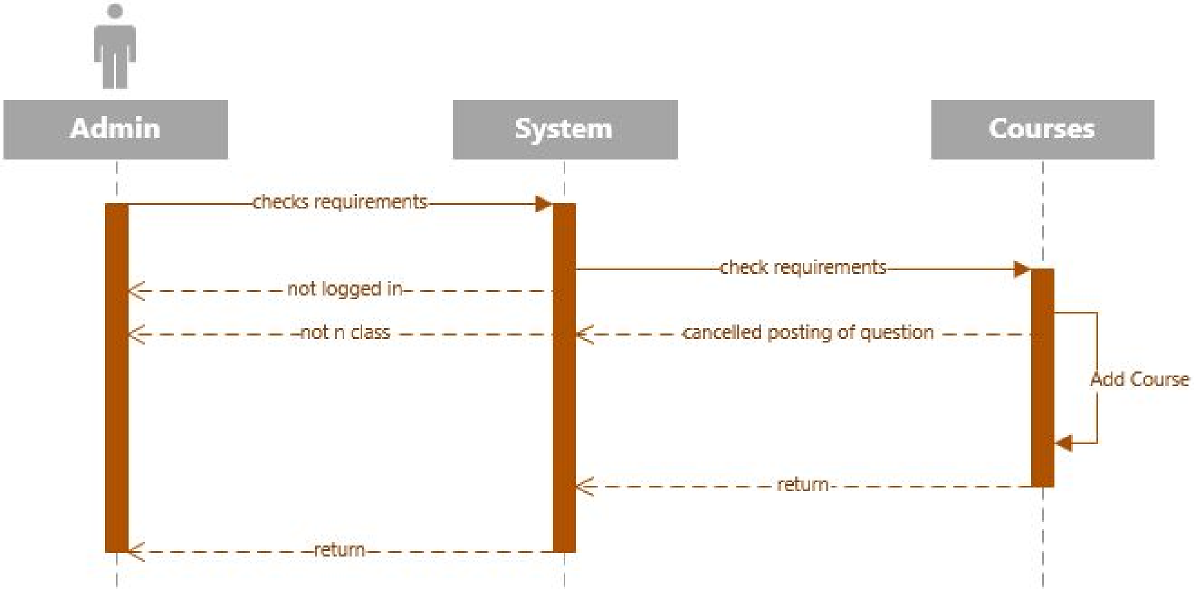
UC5: Attach an Item



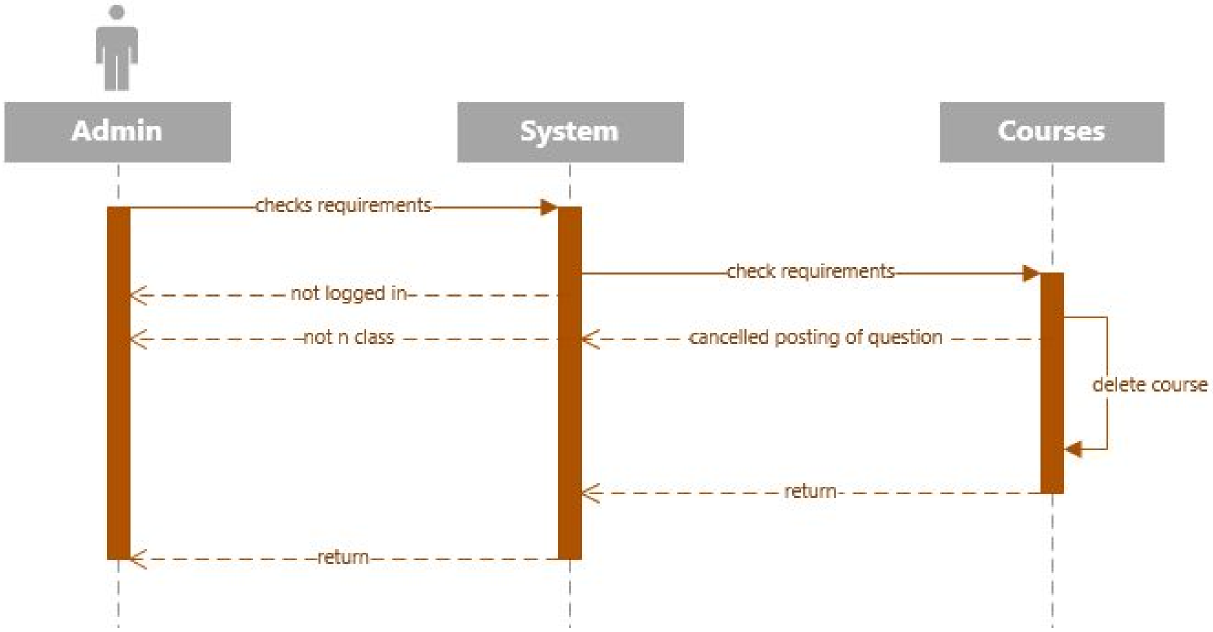
UC6: Vote on Answer/ Question



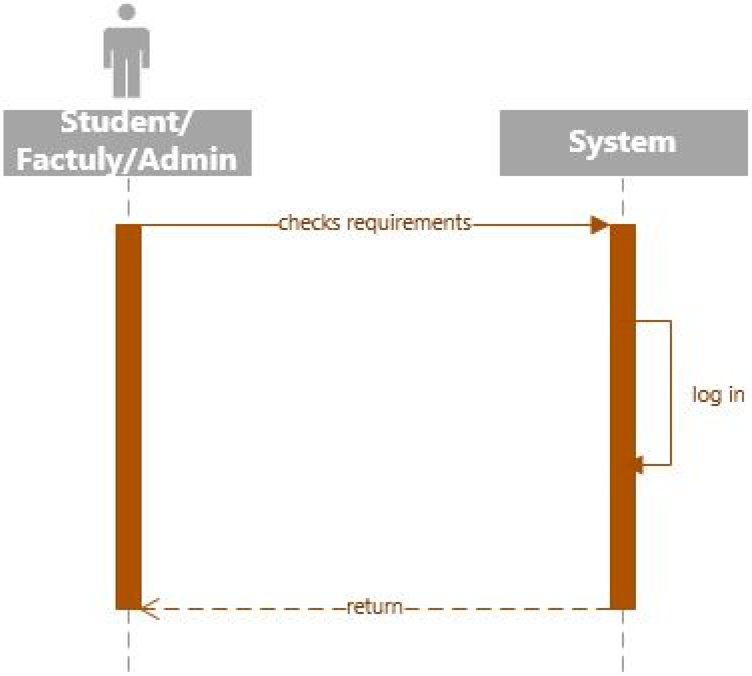
UC7: Add Course



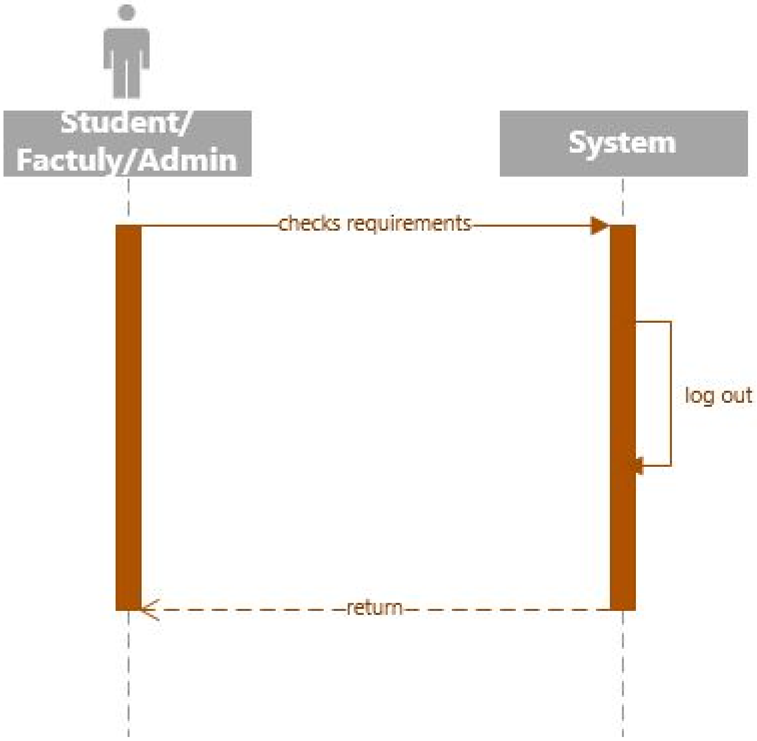
UC8: Delete Course



UC9: Log in



UC10: Log out


Student/
Factuly/Admin
System
checks requirements
log out
return