Requirements Document

High Speed Rail

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Use Case Model

Brief Descriptions

<u>UC1 - View Question</u> - User selects question they wish to view from the system. User is now viewing question and its associated answers, if any.

<u>UC2 - Post Question</u> - User wishes to post a question. User navigates to index in which they want to post their question. User confirms to post new topic.

<u>UC3 - Answer Question</u> - User is viewing a question and chooses to answer it. User drafts a response. User submits the answer. System updates the question with the answer.

<u>UC4 - Rate Answer</u> - User makes a judgement on whether they feel the answer was good or bad. The user chooses the appropriate input based on their opinion. The system will register their input and appropriately update the answers rating.

<u>UC5 - View User</u> - User wishes to view details about another user or view details about their own account. User selects a user from the system. System displays relevant information on selected user.

<u>UC6 - Search for question</u> - User inputs a search term. System returns with a list of questions related to search term.

<u>UC7 - Upload CSV</u>- User wishes to upload file to create users. User accesses upload interface. User browses for relevant file(s) and confirms upload. System adds new users.

<u>UC8 - Manage Question</u> - Admin sees a post of questionable content. Admin chooses to edit question or delete question. If admin chooses to edit the question, the admin drafts the edit. Admin confirms the deletion or modification.

<u>UC9 - Manage Answer</u> - Admin sees a answer of questionable content. Admin chooses to edit or delete the answer. If admin chooses to edit the answer, the admin drafts the edit. Admin confirms the deletion or modification.

<u>UC10 - Manage User</u> - Registrars and Admins wish to add a user, remove a user or edit user schedules. They can access a user through their form, or upload edits.

<u>UC11 - View Topic</u> - User selects Topic they wish to view from the system. User is now viewing Topic and its associated questions, if any.

<u>UC12 - Create Topic</u> - Faculty/Admin opens Topic for their Course.

<u>UC13 - View Course</u> - User selects Course to view from the system. User is now viewing Course and all associated information.

<u>UC14 - Create Course</u> - Faculty/Administrator selects to create Courses.

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UC1: View question

    Primary actor: User

    Preconditions: User is authenticated

    Postconditions: User can view full question and responses

    Stakeholders and Interests:

        Students: Wants questions to be viewed and answered

        System: Wants questions to be accessible and easily found.

    Summary: User selects a question from a list and gets to see the full question and all associated answers.

    Basic Flow:

1. User selects the question they want to view from the forum
2. System finds all data associated with the question.
3. System displays the question along with all responses and their ratings.

    Alternate Flows:

    2a. System is unable to load the question

        1. System returns user to previous screen.

UC2: Post question

    Primary actor: User

    Stakeholders and Interests:

        Student: Simple layout. Quick, easy options.

        Faculty: Simple layout. Quick, easy options.

    Preconditions: Authenticated as student, faculty, or administrator user.

    Postconditions: Question is recorded, and user is taken to the newly created question.

    Summary: User will click button to create new question in a forum or on their page. Editor window will allow data entry. Submit button will post question for anyone to see.

    Basic Flow:

1. User select viewing a forum to post a question
2. User enters information, including formatting
3. User select to submit and post question

4. System now displays question in respective forum or page
   Alternate Flow:
   > 3a. User chooses to cancel the submission.
   > > 1. System returns user to previous screen.
   > 4a. System rejects submission because of missing content
   > > 1. System returns user to previous screen and displays errors

UC3: Answer question
> **Primary actor**: User
> **Stakeholders and Interests:**
> > Student: Quick, simple interface
> > Faculty: Quick, simple interface, report
>
> **Preconditions:** Logged in as either student, faculty or an administrator and viewing a question.
> **Postconditions:** Answer displayed with its respective question
> **Summary:** User looks at a question and chooses to answer it. User edits a response and submits. System updates the question with a new answer.
> **Basic Flow:**
> 1. User selects to answer when viewing a question
> 2. User enters information with formatting
> 3. User selects to submit and post answer with the respective question
> 4. System now displays answer under question
>
> **Alternate Flows:**
> > 3a. User decides to discard the answer
> > > 1. System returns the user to the question page.
> > 4a. System rejects submission due to missing content.
> > > 1. System returns user to previous screen with a list of errors

UC4: Rate answer
> **Primary actor:** User
> **Stakeholders and Interests:**
> > Student/Faculty: The answer poster's reputation should be viewable to see its reputability. Simple means to show support for an answer they approve of. Question-asker wants simple way to see commonly supported answer.
>
> **Preconditions:** Logged in, viewing a question, has at least 1 answer they wish to rate
> **Postconditions:** Local change to denote vote, system stores it for future requests
> **Summary:** Admin deletes an inappropriate answer to a question.
> **Basic Flow:**
> 1. User selects up or down vote button while viewing answers to question.
> 2. System locally confirms the vote.
> 3. System saves vote to edit answer's cumulative vote rating.

UC5: View User

Primary Actor: User

Stakeholders and Interests:

Student/Faculty: See data about a user to access their or others' cumulative reputation and other questions and answers by the user.

Administrator: Check user data to decide if it requires punitive action.

Preconditions: Logged in, select a user.

Postconditions: User can view their or other User's data.

Summary: User selects a username to view that user's data.

Basic Flow:

1. User selects a username.
2. User can view user's avatar, name, cumulative reputation, and recently made questions and answers.

UC6: Search for question

Primary Actor: User

Stakeholders and Interests:

Student: Quick access to find relevant information to their query.

Faculty/Administrator: Robust search so no duplicate questions are asked.

Preconditions: Logged in

Postconditions: User can view a list of relevant questions to their search term

Summary: User inputs a search term. System returns with a list of questions related to search term.

Basic Flow:

1. User inputs search term.
2. System searches for matches of the search term
3. System returns list of relevant information to the User

UC7: Upload CSV

Primary Actor: Registrar, Administrator

Stakeholders and Interests:

Registrar/Administrator: Quick and easy upload process, correctly parsed information

Preconditions: Logged in, select to add new users

Postconditions: Users are created from file

Summary: User browses for relevant file(s) and confirms upload.

Basic Flow:

1. Registrar/Administrator selects to upload a file of user data.
2. System parses uploaded data to create users
3. Registrar/Administrator is returned to user creation

UC8: Manage Question

Primary Actor: Administrator

Stakeholder and Interests:

Administrator: Quick links for easy access to handle punitive functionality.

Precondition: Logged in. Viewing some question which an Administrator deems inappropriate.

Postcondition: The question is removed.

Summary: Admin selects to remove question, and does so.

Basic Flow:
1. Admin selects to remove question.
2. System removes question.

UC9: Manage Answer

Primary Actor: Administrator

Stakeholders and Interests:

Administrator: Quick links for easy access to handle punitive functionality.

Precondition: Viewing some question where an Administrator deems an answer inappropriate.

Postcondition: The answer is removed.

Summary: Administrator selects answer to be removed, and does so.

Basic Flow:
1. Admin selects to remove answer.
2. System removes answer.

UC10: Create User

Primary Actor: Administrator, Registrar

Stakeholders and Interests:

Administrator: Quick links for easy access. In-depth creation and management tools.

Precondition: Logged in. Administrator or Registrar wishes to add users.

Postcondition: User is added.

Summary: Administrator wishes to add user. Inputs user data. System adds user and changes list of users accordingly.

Basic Flow:
1. Administrator chooses to add user.
2. Administrator inputs users data.
3. Administrator submits form.
4. System creates user accordingly.

Alternate Flow:

3a. Administrator submits form with invalid data.
    a. Bring up notice and ask for correction upon attempted submission.

UC11: View Topic

Primary Actor: User

Stakeholders and Interests:

User: Quick, obvious functionality to get to a relevant topic.

Precondition: Logged in

Postcondition: User is viewing Topic

Summary: User selects to view that Topic data.

Basic Flow:
1. User selects Topic to view
2. User can view the selected Topic, containing its questions

UC12: Create Topic

Primary Actor: Faculty, Administrator

Stakeholders and Interests:

Faculty: Create Topic for a Course with information required to identify it.

Administrator: Have quick, easy means to remove Topic if needed.

Precondition: Faculty or Administrator have class info to add to the system, or Administrator wishes to remove Topic.

Postcondition: New Topic created, or chosen Topic removed.

Summary: Faculty or Administrator navigate to Topic management. Administrator picks existing class to delete, or either enters details for a new class.

Basic Flow:
1. Faculty/Administrator selects Topic creation page.
2. Faculty/Administrator enters information on topic to create.
3. System commits addition or deletion.

Alternate Flow:

3a. Faculty/Administrator submits form with invalid data.
   a. System brings up notice and ask for correction upon attempted submission.

UC13: View Course

Primary Actor: User

Stakeholders and Interests:

User: Quick, easy access to course and associated information.

Precondition: Logged in

Postcondition: User is viewing Course.

Summary: User selects Course they wish to view, and see its associated information

Basic Flow:
1. User selects Course they wish to view
2. User can view selected Course and its associated information.

UC14: Create Course

Primary Actor: Administrator

Stakeholders and Interests:

Administrator: Quick access to quickly manage classes.

Precondition: Logged in. Administrator has a course to add, edit, or remove.

Postcondition: Change is made according to administrator action.

Summary: Administrator navigates to Course management. Picks an existing class to edit or remove, or selects to create a new class. Fills out relevant information. Submits change.
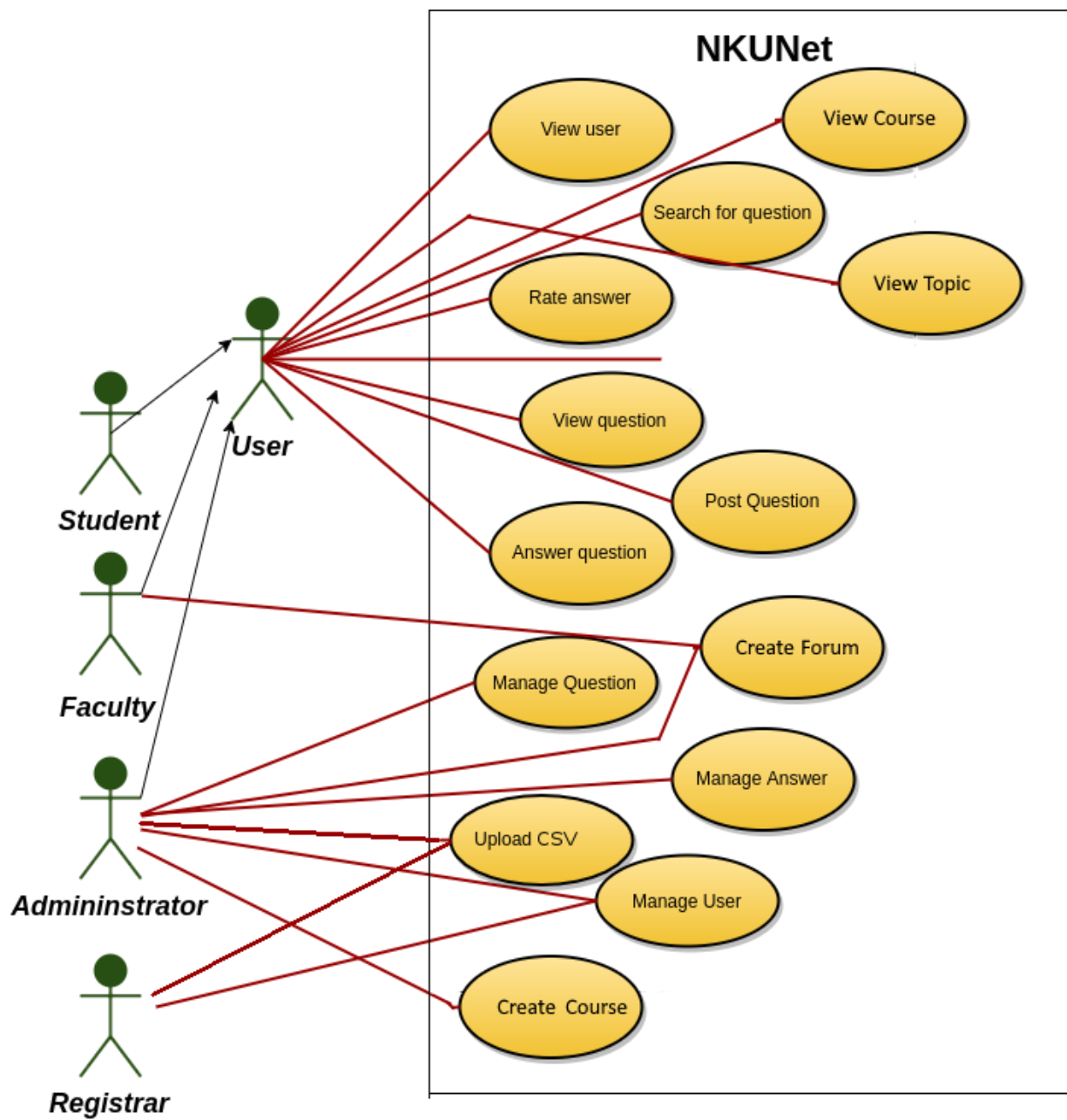
Basic Flow:

1. Administrator navigates to Course creation.
2. Administrator picks class to add
3. Administrator fills out relevant information
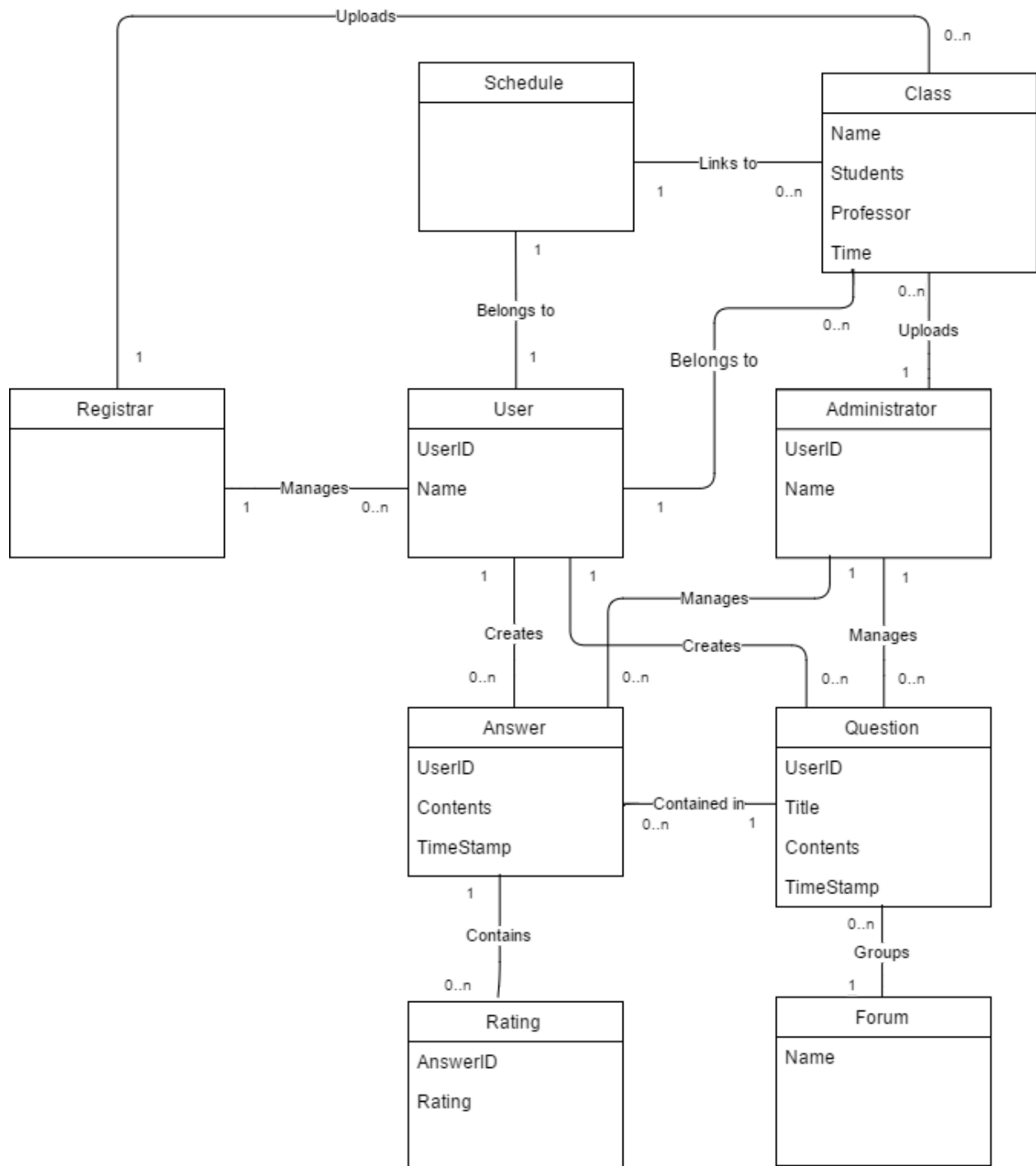4. Administrator submits change to system

Alternate Flow:

4a. Administrator submits form with invalid data.

   a. System brings up notice and ask for correction upon attempted submission.

Use Case Context Diagram

Domain Model

System Sequence Diagrams

:User → :System: viewQuestion

:System → :User: question, answers

:User → :System: answerQuestion

:User → :System: enterText(response)

:User → :System: submitAnswer

:System → :User: question, answers

:User → :System: postNewQuestion

alt [title and body are valid]

:User → :System: enterText(title, body)

:User → :System: submitQuestion

:System → :User: question, answers

[else]

:System → :User: errors

:User → :System: rateAnswer(rating)

:System → :User: rating accepted