Requirements Document for 2b |! 2b

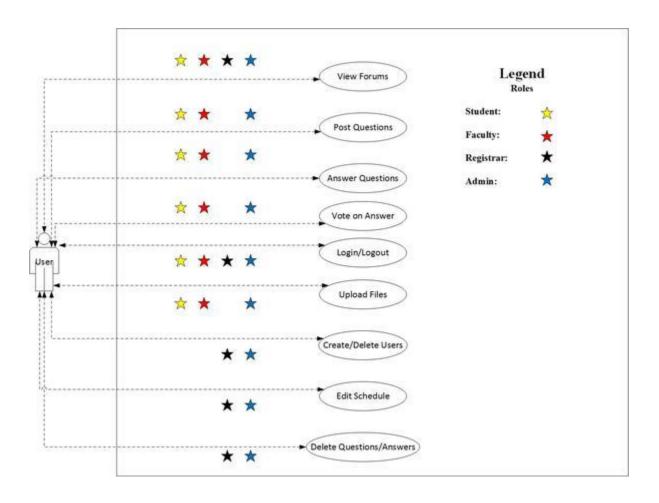
Table of Contents:

| Discussion of Changes | 2 |
|-------------------------------|-----|
| Use-Case Model | . 3 |
| Use Cases (All Fully-Dressed) | 4 |
| Domain Model | 10 |
| System Sequence Diagrams | 11 |

Discussion of Changes

We added a new diagram which shows how the questions and answers can be voted upon. Essentially, the User interacts clicks on the vote, which tells the Question/Answer Controller that the database needs to be updated. We updated the diagram for creating a question. When a Question is made, there is a title, course ID, and a description passed as parameters.

Use Case Model



Use Cases

Use Case UC1: View Forums

Primary actors: Student, faculty, admin, and registrar Stakeholders

and Interests:

- 1. Student: Wants to view questions posted in forums
- 2. Faculty: Wants to view questions posted in forums
- 3. Admin: Wants to view questions posted in forums
- 4. Registrar: Wants to view questions posted in forums

Preconditions: Questions must be posted in forum to view; user registered in system Post conditions: Can view questions in the forum.

Summary: Students, faculty, admin, and registrars can view questions that are posted in the forums

Basic Flow:

- 1. User logs into system to access
- 2. User selects question to view
- 3. System directs the user to the corresponding forum page Alternate Flow:
- 1. User unable to sign in
 - a. Ensure log in credentials are correct
 - b. If password forgotten, request to reset password
- 3. Page not found (404)
- a. Alert user and redirect to homepage
- b. Notify admin about the broken link

Use Case UC2: Post Questions

Primary actors: Students, faculty, and admin Stakeholders

and Interests:

- 1. Students: Want to view and ask questions posted in the forums
- 2. Faculty: Want to view and ask questions posted in the forums
- 3. Admin: Want to view and ask questions posted in the forums for testing

functionality Preconditions: Must have proper permissions to ask questions.

Post conditions: Question forum started; other users can comment/answer the question

Summary: Students, faculty, and admin will be able to ask questions in the forums Basic

Flow:

- 1. User logs in
- 2. Select post new question
- 3. Submit question Alternate Flow:
- 2. User does not have permission to post question
 - a. System notifies user and redirects to homepage
- 3. Error processing the request
 - a. System notifies user and refreshes the page to try again

Use Case UC3: Answer Questions

Primary actors: Students, faculty, admin

Stakeholders and Interests:

- 1. Students: Want to view and answer questions posted in the forums
- 2. Faculty: Want to view and answer questions posted in the forums
- 3. Admin: Want to view and answer questions posted in the forums

Preconditions: Questions must be posted in the forum to answer, must have proper permissions to answer questions.

Post conditions: User answers the question.

Summary: Students, faculty, and admin will be able to answer questions in the forums to be voted upon.

Basic Flow:

- 1. User logs in
- 2. Selects question to answer
- 3. Posts a new answer to the question Alternate Flow:

3a. User does not have the proper permissions to answer the question

- a. System notifies users and redirects to homepage
- 3b. Error processing answer
 - a. System notifies user and refreshes the page to try again

Use Case UC4: Vote on Answer

Primary actors: Students, faculty, and admin Stakeholders

and Interests:

- 1. Students: Can up vote or down vote questions and answers
- 2. Faculty: Can up vote or down vote questions and answers
- 3. Admin: Can up vote or down vote questions and answers to test system functionality

Preconditions: Questions must be posted in forum to vote on, must have proper permissions to vote on questions and answers.

Post conditions: Answer is voted upon once but can be changed Summary:

Students, faculty, and admin can vote on answers.

Basic Flow:

- 1. User logs in
- 2. Selects question to view
- 3. Upvote/Downvote specific answers Alternate Flow:
- 3. Tries to vote multiple times on same answer
 - a. Alerts user that answer can be voted upon once, but can be changed from upvote to downvote or vice versa

Use Case UC5: Delete Questions and Answers

Primary actor: Admin

Stakeholders and Interests:

1. Admin: Can delete questions and answers if they are deemed inappropriate

Preconditions: Must be admin to delete questions and answers

Post conditions: Admin can delete questions and answers they deem inappropriate.

Summary: Admin will determine if questions and answers are appropriate to be posted to the forum.

Basic Flow:

- 1. User logs in
- 2. Selects inappropriate question/answer to edit/delete
- 3. Edits/deletes question/answer Alternate Flow:

1. Not admin user

a. System redirects and notifies user that they do not have the proper permissions to edit/delete posts.

3. Can't process request

a. Notifies user and refreshes page to try again

Use Case UC6: Create and Delete Users

Primary actors: Admin and registrar Stakeholders

and Interests:

1. Admin: Can create and remove users

2. Registrar: Can create and remove users

Preconditions: Must be Admin or registrar to create and remove users; new user must not exist in system already

Post conditions: Can create and remove users

Summary: Admin and registrar can create and remove users Basic

Flow:

- 1. User logs in
- 2. Select to create a new user
- 3. Attempt to create new user if does not already exist in system
- 4. New user is created Alternate Flow:
- 1. User does not have permissions to create new users
 - a. System redirects to homepage and alerts user they do not have proper permissions
- 3. User already in system
 - a. System notifies user that the user already exists in the system and cancels request
- 4. Cannot process request
 - a. System notifies user and refreshes page to try again

Use Case UC7: Edit Schedule Primary

actors: Admin and registrar

Stakeholders and Interests:

- 1. Admin: Can edit the students/faculty schedule
- 2. Registrar: Can edit the students/faculty schedule Preconditions: Must

be admin or registrar to edit schedules.

Post conditions: Semester schedules updated

Summary: Admin and registrar can edit the schedules of students/faculty for the current semester

Basic Flow:

- 1. User logs in
- 2. Navigates to the edit schedule page
- 3. Submit form to edit the schedule Alternate Flow:
- 1. User does not have permissions to edit schedules
 - a. System notifies user and redirects to homepage
- 3. Cannot process form
 - a. System notifies user and refreshes page to try again

Use Case UC8: Upload Files

Primary actors: Student and Faculty

Stakeholders and Interests:

1. Students: can upload educational materials (diagrams/tutorials) to profile 2.

Faculty: can upload educational materials (diagrams/tutorials) to profile

Preconditions: Must be student or faculty to have an individual profile in order to upload files to said profile.

Post conditions: Files uploaded to profile

Summary: Students and faculty can upload pertinent educational materials to their profile for public viewing

Basic Flow:

- 1. User logs in
- 2. Navigates to individual profile
- 3. Select to upload a file
- 4. Select file to upload
- 5. File uploaded and added to profile

Alternate Flow:

- 2. User does not have proper permissions to have a profile
 - a. System notifies user they cannot have a profile
- 3a. File not acceptable format
 - a. Request cancelled and user notified
- 3b. File size too large
 - a. User notified and prompted to select a different file

Use Case UC9: Login/Logout

Primary actors: Student, Faculty, Registrar, and Admin

Stakeholders and Interests:

1. All: Allows stakeholders to access site by logging in then leaving by logging out

Preconditions: Must have user account

Post conditions: User can either login or logout

Summary: The users with proper credentials can login to the site then logout

Basic Flow:

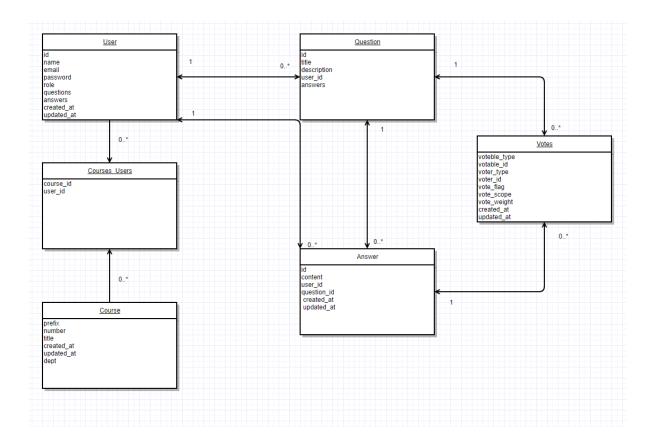
1. User logs in

2. User logs out

Alternate Flow:

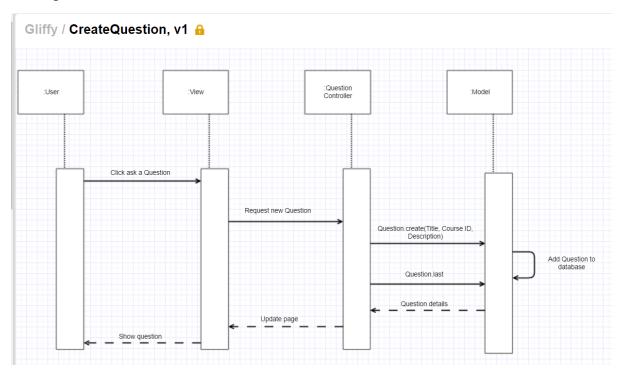
- 1. User doesn't have an account
 - a. Contact registrar
- 2. User forgot credentials
 - a. Contact registrar

Domain Model

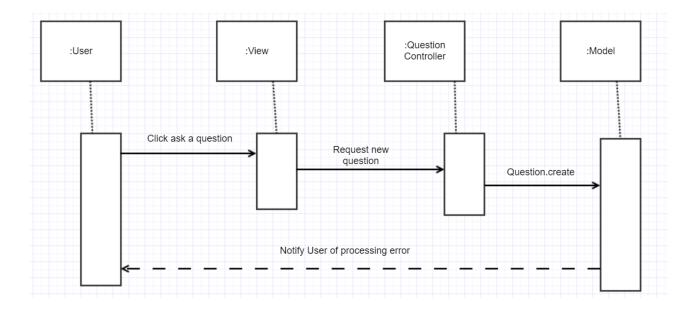


System Sequence Diagrams

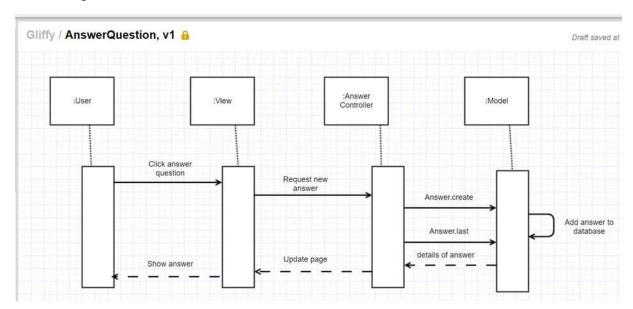
Create a Question



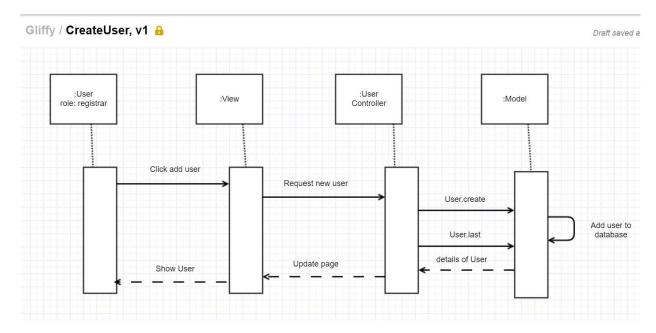
Alternate Flow for Create Question (Question Processing Error)



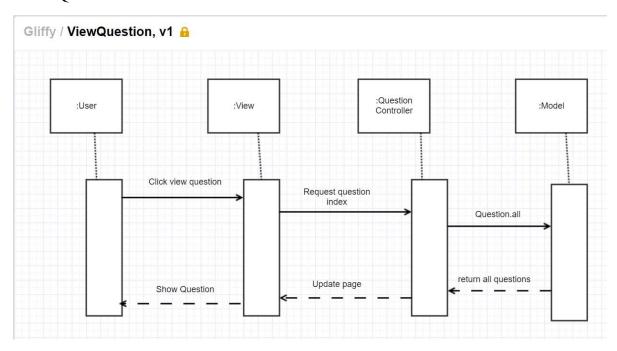
Answer a Question



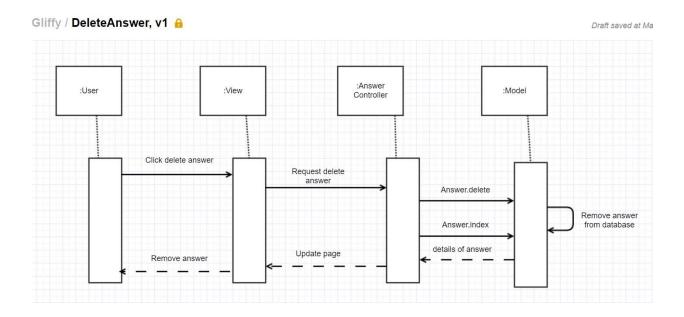
Create a User



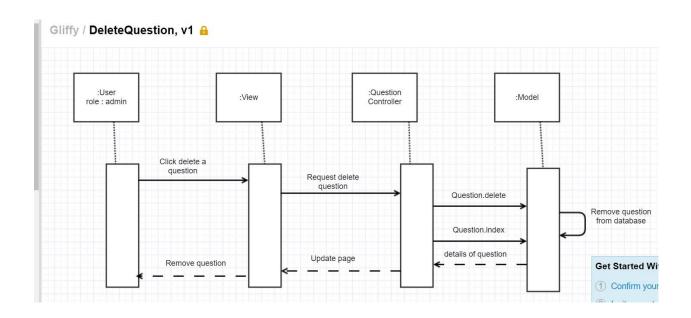
View a Question



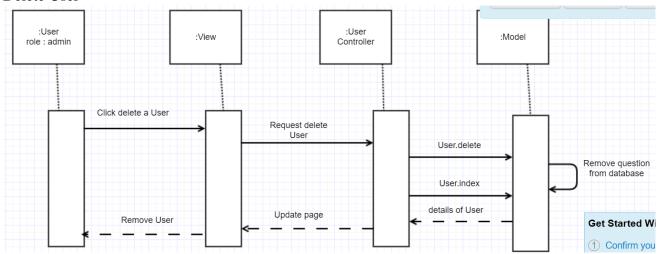
Delete Answer



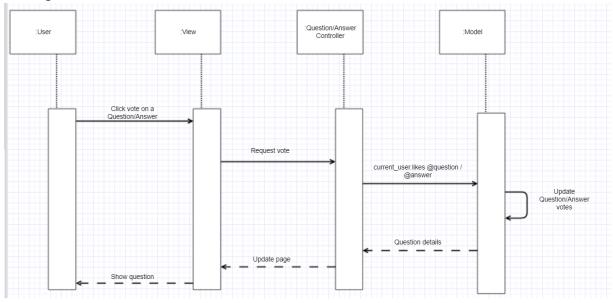
Delete Question



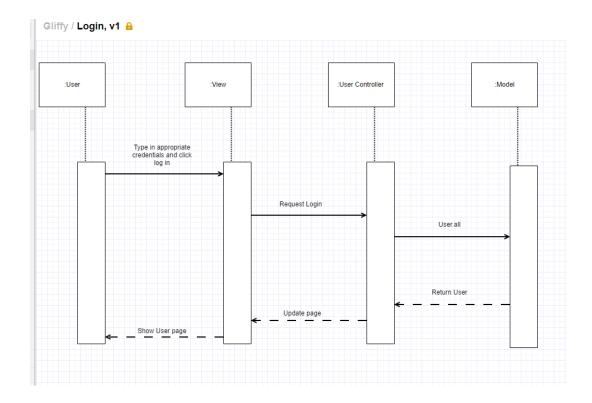
Delete User



Vote Question/Answer



Login



Logout

