NKUNet
Requirements Document

Version: Iteration 3

Revision History		
March 15, 2017	I5S Team	Initial version
April 2, 2017	I5S Team	Iteration 2 Fully dress UC-5, UC-6, UC-11 and UC-12
April 3, 2017	I5S Team	Minor corrections for grammar and marked issues as closed.
May 1, 2017	I5S Team	Iteration 3 Fully dress remaining use cases

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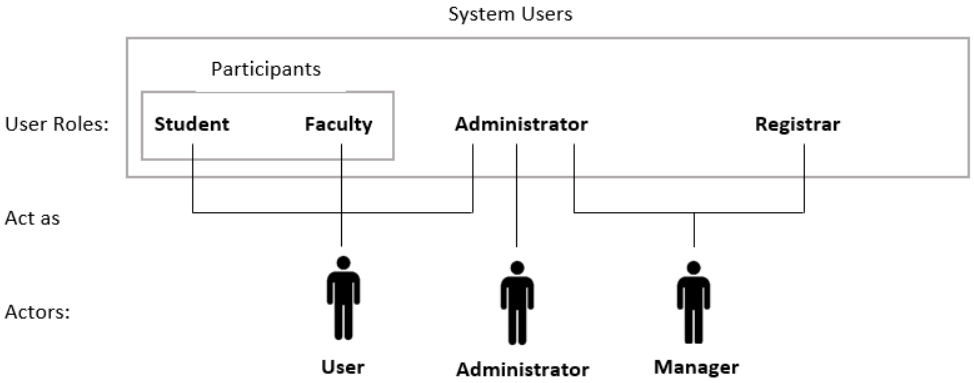
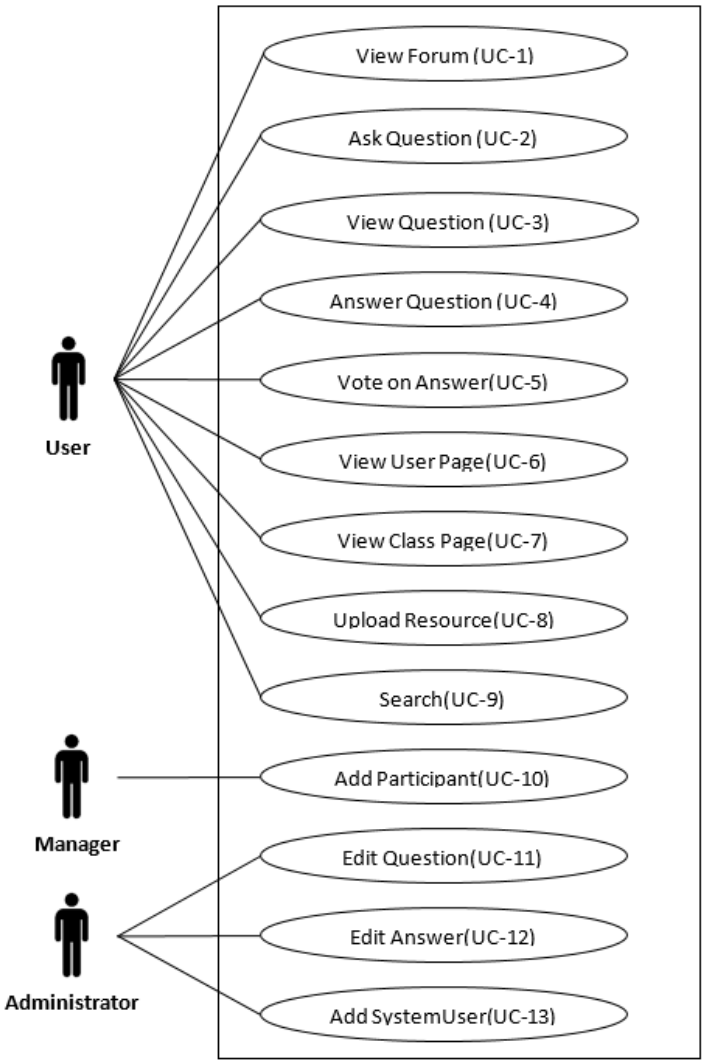
Use Case Model

Roles and Actors Diagram



Use Case Context Diagram



Use Cases (Fully Dressed)

UC-1	**Name**: View Forum
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. User: Wants to view a list of questions by topic.
	Preconditions: User is logged in.
	Success Guarantee (or Post conditions): Forum is displayed to user.
	Main Success Scenario (or Basic Flow): 1. User accesses system.

	2. System presents a list of forums. 3. User selects a forum. 4. System presents a list of questions posted in that forum and summary information for each question.
	Extensions (or Alternative Flows): a*. At any time, the student cancels the activity: the current activity will cease.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. ~~User Authentication procedures need to be established~~. (Implemented using authlogic in Iteration 2)

UC-2	**Name**: Ask Question
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. User: Wants to ask other NKUNet users a question.
	Preconditions: User has navigated to a forum.
	Success Guarantee (or Post conditions): Question is posted to forum.
	Main Success Scenario (or Basic Flow): 1. User selects Ask Question as desired activity. 2. User enters: Question Title, Question Description. 3. User submits question. 4. System saves question. 5. System presents the new question within the forum.
	Extensions (or Alternative Flows): a*. At any time, the system fails. 1. The current activity will cease. 2. Entered information that was not submitted will be lost. b*. At any time, the student cancels the activity. 1. The current activity will cease. 2. Entered information that was not submitted will be lost. 3a. User submits a question without a Title and/or a Question Description 1. System will not save question. 2. User will be prompted to enter missing information.
	Special Requirements: None

	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. ~~Should there be the option to change forum while asking question?~~ Yes, implemented in iteration 1.

UC-3	**Name**: View Question
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. User: Wants to see the description of a particular question and view answers to that question.
	Preconditions: User has navigated to a forum.
	Success Guarantee (or Post conditions): Selected question and its answers are displayed to user.
	Main Success Scenario (or Basic Flow): 1. User selects a question. 2. System presents question description and answers posted to the question.
	Extensions (or Alternative Flows): a*. At any time, the student cancels the activity: the current activity will cease.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: None

UC-4	**Name**: Answer Question
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. User: Wants to post an answer to a viewed question.
	Preconditions: User has navigated to a question.

	Success Guarantee (or Post conditions): Answer is posted.
	Main Success Scenario (or Basic Flow): 1. User chooses Answer Question as the desired activity. 2. User enters answer. 3. User submits answer. 4. System saves answer. 5. System presents the question and answers, including the new answer.
	Extensions (or Alternative Flows): a*. At any time, the system fails. 1. The current activity will cease. 2. Entered information that was not submitted will be lost. b*. At any time, the student cancels the activity. 1. The current activity will cease. 2. Entered information that was not submitted will be lost. 3a. User submits without entering an answer 1. System will not save answer. 2. User will be prompted to enter missing information.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. ~~Should users be able to edit their own answers?~~ No, not implemented due to time constraints.

UC-5	**Name:** Vote on Answer
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. User: Wants to provide feedback on an answer by providing an up-vote or a down-vote.
	Preconditions: 1. User is viewing an answer.
	Success Guarantee (or Post conditions): Up-vote or down-vote is posted.
	Main Success Scenario (or Basic Flow): 1. User selects up-vote on answer being viewed. 2. System records vote. 3. System presents updated count of votes for answer.
	Extensions (or Alternative Flows): a*. At any time, the student cancels the activity: the current activity will cease. 1a. User selects downvote. 1-2b. User had previously rated the question. 1. User previously selected the same rating – no effect to rating. 2. User previously selected the opposite rating – this rating overlays previous rating.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues:

UC-6	**Name:** View User Page
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests:

	1. User: Wants to view information about another user that might be helpful, including questions and answers they have recently posted. Wants to view their own reputation.
	Preconditions: 1. User is either viewing a question posted by a User, viewing an answer posted by a User, viewing information regarding a class that contains faculty and enrolled students or is viewing user information on himself/herself.
	Success Guarantee (or Post conditions): User information is presented.
	Main Success Scenario (or Basic Flow): 1. User selects the name of another User who posted a question. 2. System presents information for the other User: a. Classes where student is/was enrolled b. Reputation (upvotes, downvotes, number of questions answered) c. Most recent questions posted d. Most recent answers posted e. Educational resources posted
	Extensions (or Alternative Flows): a*. At any time, the student cancels the activity: the current activity will cease. 1a. User selects the name of another User who posted an answer. 1b. Admins who post either questions or answers cannot be selected as there is no user information. 1c. User selects the name of another User who is enrolled in a class. 1d. User selects himself/herself. 2a. System presents Educational Resource options if User viewing his/her own user information (UC-8).
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. ~~Navigation preconditions – where are all the opportunities to view a user page?~~ User Page can be reached from Class Page (instructor or registered student), Question or Answer. 2. ~~Reputation calculation?~~ Implemented in Iteration 2. 3. ~~How many recently posted questions/answers posted should be displayed on this page~~? Decision was made in Iteration 2 to go with 5.

UC-7	**Name**: View Course
	Level: User Goal

	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. Student: Wants to successfully view a course page 2. Faculty: Wants to successfully view a course page
	Preconditions: 1. Courses loaded into database 2. Course Section is loaded into database 3. Course description is loaded into database 4. Course instructor is loaded into database
	Success Guarantee (or Post conditions): Course is successfully displayed.
	Main Success Scenario (or Basic Flow): 1. User select course list. 2. User selects a specific course from the list. 3. System presents a list of sections. 4. User selects a section from the section list. 5. System presents students and instructor for section.
	Extensions (or Alternative Flows): a*. At any time, System fails: System does not retain any information from failed upload. b*. At any time, the User cancels the activity. 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues:

UC-8	**Name**: Upload Resouce
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. Student: Wants to successfully upload a resource

	2. Faculty: Wants to successfully upload a resource
	Preconditions: 1. Files can be uploaded to user page.
	Success Guarantee (or Post conditions): Resource is successfully uploaded to user page.
	Main Success Scenario (or Basic Flow): 1. User inputs resource to be uploaded. 2. User uploads resource.
	Extensions (or Alternative Flows): a*. At any time, System fails: System does not retain any information from failed upload. b*. At any time, the Administrator cancels the activity. 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease. 2a. Option to delete resource 2b. Option to update resource
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. Should we be able to upload URL as a resource?

UC-9	**Name**: Search
	Level: User Goal
	Scope: NKUNet
	Primary Actor: User
	Stakeholders and Interests: 1. User: Wants to be able to search for a course 2. User: Wants to be able to search for a question 3. Faculty: Wants to be able to search for a course 4. Faculty: Wants to be able to search for a question
	Preconditions: 1. Courses are loaded into database 2. Questions are loaded into database

	Success Guarantee (or Post conditions): Administrator successfully adds a system user.
	Main Success Scenario (or Basic Flow): 1. User selects Search 2. User indicates courses and inputs course name 3. System presents a list of course
	Extensions (or Alternative Flows): a*. At any time, System fails: System does not retain any information from failed upload. b*. At any time, the User cancels the activity. 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease. 2a. User indicates courses and inputs instructor 2b-3. User indicates question and inputs subject System presents a list of questions 2c-3. User indicates question and inputs user System presents a list of questions 2d-3. User indicates question and inputs post title System presents a list of questions 2e-3. User indicates question and inputs keyword System presents a list of questions
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. Search in one combo box? Maybe drop boxes?

UC-10	**Name**: Add Participant
	Level: User Goal
	Scope: NKUNet
	Primary Actor: Manager
	Stakeholders and Interests: 1. Manager: Successfully add a user to NKUNet 2. Participant: Wants to be added to NKUNet
	Preconditions: Participant information is provided to Manager. Participant information is edited and added to a CSV file.

	Success Guarantee (or Post conditions): Participant added successfully to NKUNet.
	Main Success Scenario (or Basic Flow): 1. Manager uploads CSV file into system. 2. System adds Participants. 3. System reports upload status to Manager.
	Extensions (or Alternative Flows): a*. At any time, System Fails: System does not retain any information from failed upload. b*. At any time, the Manager cancels the activity: 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease.
	Special Requirements: None
	Technology and Data Variations List: 1a. Locally saved CSV is uploaded to the system. 1b. Centrally saved file is uploaded to the system.
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. Student/Faculty may need to be added differently. 2. ~~Class schedule information needs to be added at a later time AND addressed in a different iteration.~~ 3. How will Participant be notified that they were added to the system?

UC-11	**Name**: Edit Question
	Level: User Goal
	Scope: NKUNet
	Primary Actor: Administrator
	Stakeholders and Interests: 1. Administrator: Wants to successfully delete or edit an inappropriate question posted. 2. University: Wants to protect the integrity, safety and legitimacy of the forum system.
	Preconditions: 1. Questions entered. 2. Question identified as needing to be edited / deleted.
	Success Guarantee (or Post conditions): Question is removed or edited.
	Main Success Scenario (or Basic Flow): 1. Administrator selects Question.

	2. Administrator selects Edit as desired activity. 3. Administrator inputs changes. 4. System saves changes.
	Extensions (or Alternative Flows): a*. At any time, System fails: 1. System retains all data and deletion/edit will not occur. 2. After recovery, users can access systems questions and answers. b*. At any time, the Administrator cancels the activity. 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease. 2a. Administrator wants to delete a question. 1. Administrator selects to delete a question. 2. System marks the question as not active, which removes it from being viewed. 3. System marks all answers for this question as not active, which removes them from being viewed. 4. System removes all votes for answers for this question.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. ~~Should all answers to a deleted question also be deleted?~~ Yes 2. ~~Should all answers to a deleted question still be viewable?~~ No 3. ~~Should the original 'bad' text be retained, but visibility reduced~~? Yes 4. ~~Should there be a tracking mechanism to 'ban' users who have frequent questions (and answers deleted)?~~ No 5. ~~Should users be made aware if a question is deleted?~~ No 6. ~~Student / Faculty may need to edit a question.~~ Not implemented due to time constraints. 7. ~~Student / Faculty may need to delete a question.~~ Not implemented due to time constraints.

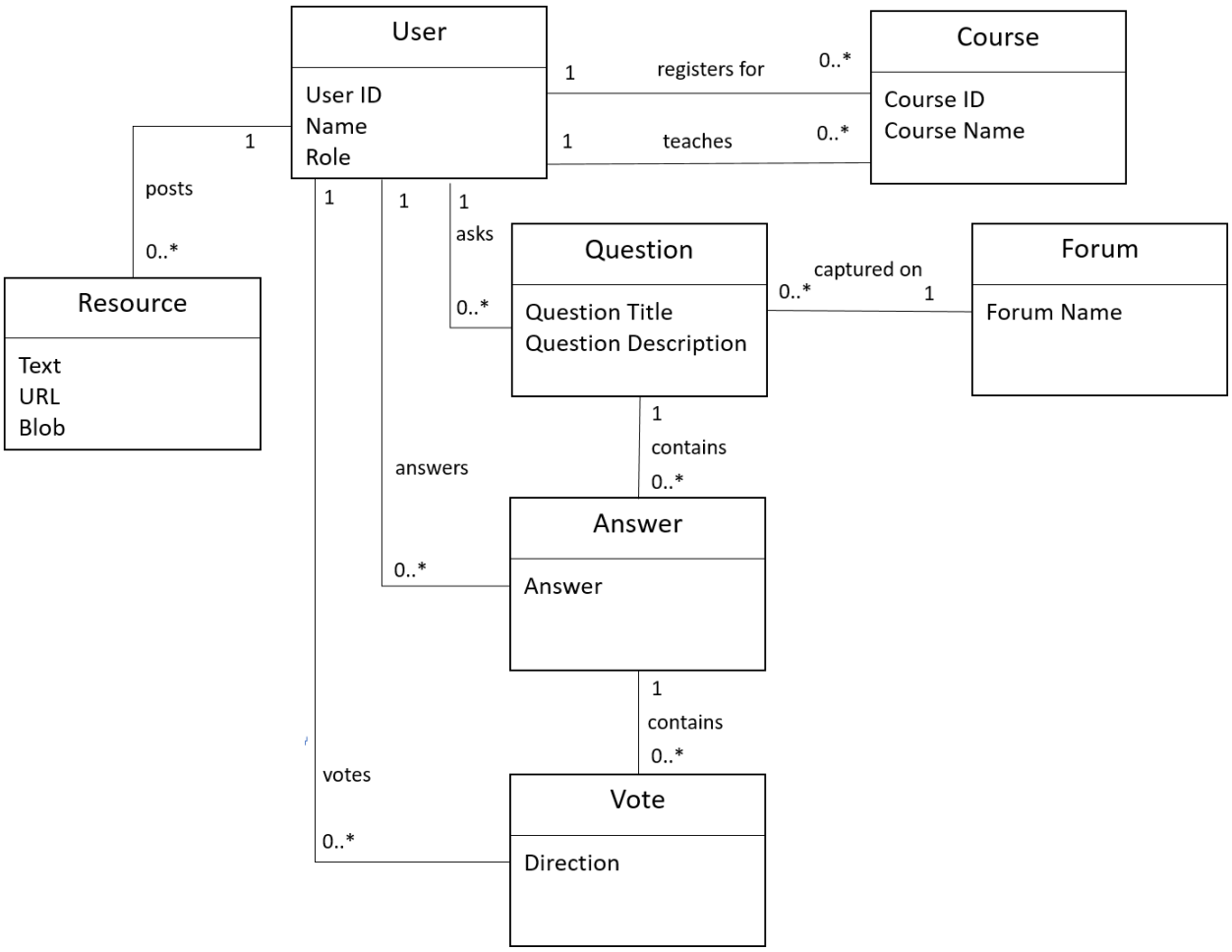
UC-12	**Name**: Edit Answer
	Level: User Goal
	Scope: NKUNet
	Primary Actor: Administrator
	Stakeholders and Interests: 1. Administrator: Wants to successfully delete or edit an inappropriate answer posted. 2. University: Wants to protect the integrity, safety and legitimacy of the forum system.

	Preconditions: 1. Answer entered. 2. Answer identified as needing to be edited / deleted.
	Success Guarantee (or Post conditions): Answer is removed or edited.
	Main Success Scenario (or Basic Flow): 1. Administrator selects Answer. 2. Administrator selects Edit as desired activity. 3. Administrator inputs changes. 4. System saves changes.
	Extensions (or Alternative Flows): a*. At any time, System fails: 1. System retains all data and deletion/edit will not occur. 2. After recovery, users can access systems questions and answers. b*. At any time, the Administrator cancels the activity. 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease. 2a. Administrator wants to delete an answer. 1. Administrator selects to delete an answer. 2. System marks the answer as not active, which removes it from being viewed. 3. System removes all votes for answer.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues: 1. ~~Student / Faculty may need to edit an answer.~~ Not implemented due to time constraint. 2. ~~Student / Faculty may need to delete an answer.~~ Not implemented due to time constraints.

UC-13	**Name**: Add System User
	Level: User Goal
	Scope: NKUNet
	Primary Actor: Administrator
	Stakeholders and Interests: 1. Administrator: Wants to successfully add a system user
	Preconditions:

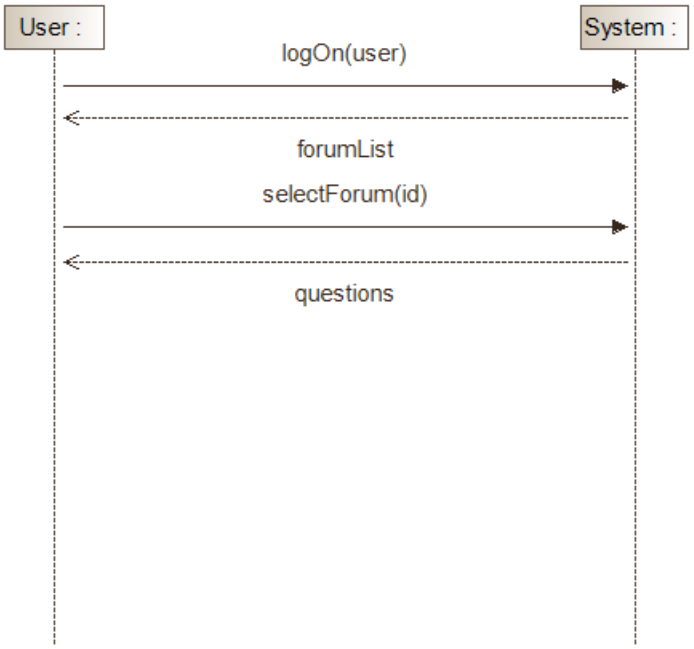
	2. Administrator has the permissions to add system user.
	Success Guarantee (or Post conditions): Administrator successfully adds a system user.
	Main Success Scenario (or Basic Flow): 1. Administrator selects Add System User. 2. Administrator inputs system user information. 3. Administrator submits input.
	Extensions (or Alternative Flows): a*. At any time, System fails: System does not retain any information from failed upload. b*. At any time, the Administrator cancels the activity. 1. No changes made since the beginning of the activity will be retained. 2. Current activity will cease. 2a. Administrator add other administrators.
	Special Requirements: None
	Technology and Data Variations List: None
	Frequency of Occurrence: Could be nearly continuous.
	Open Issues:

Domain Model

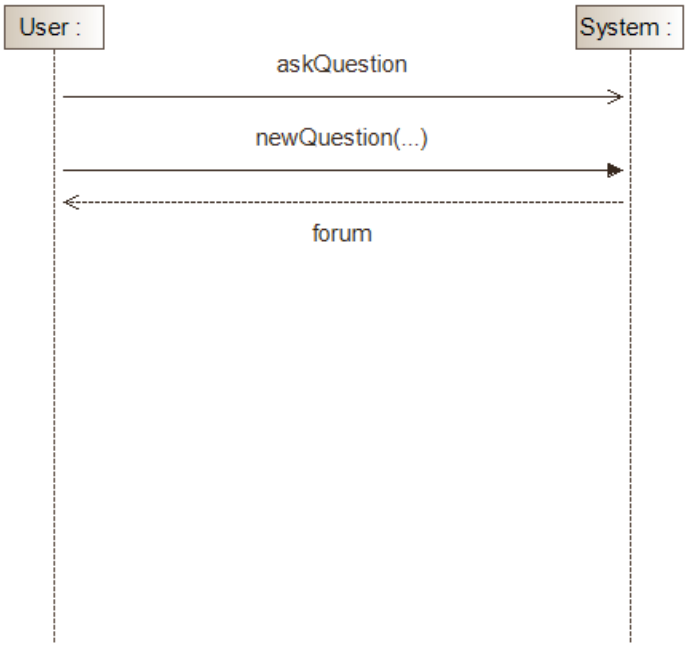


System Sequence Diagrams

UC-1

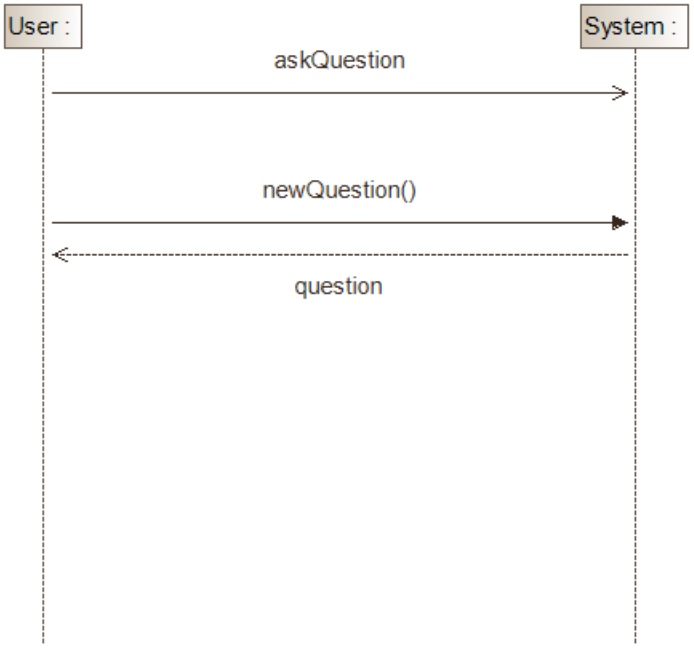


UC-2

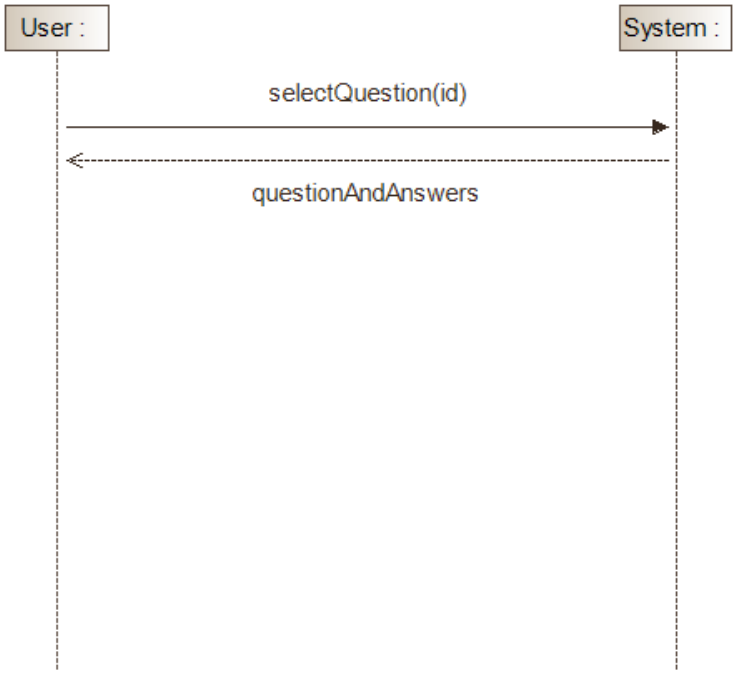


UC-2 (alternate flow)

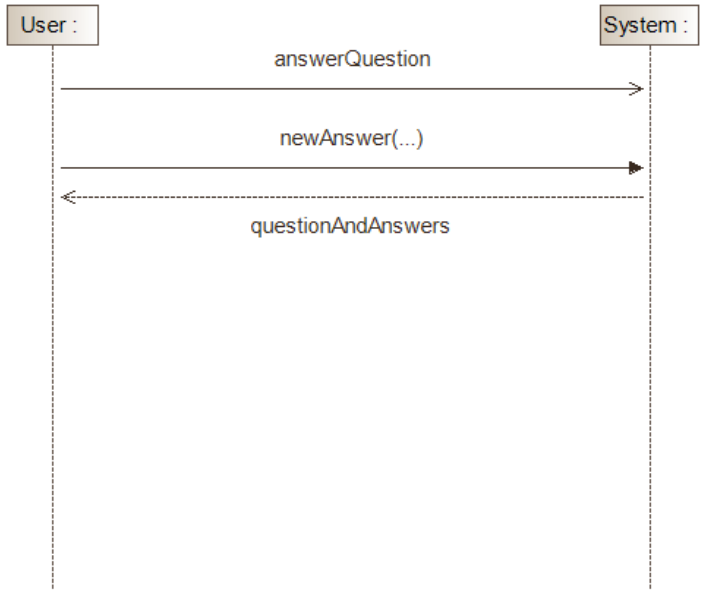
Question Title and Question Description not supplied.



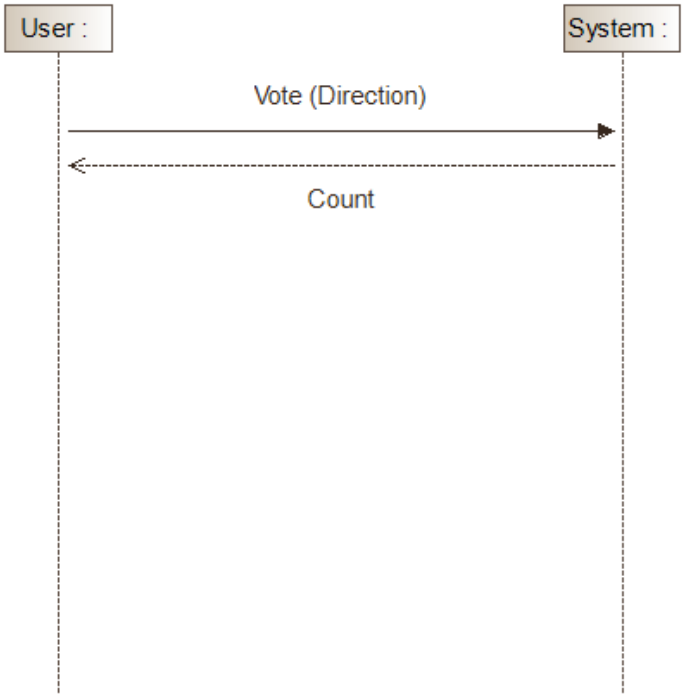
UC-3



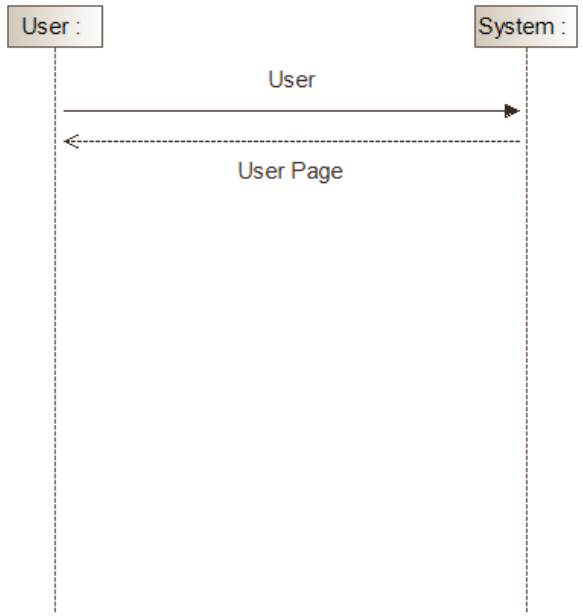
UC-4


User :
System :
answerQuestion
newAnswer(...)
questionAndAnswers

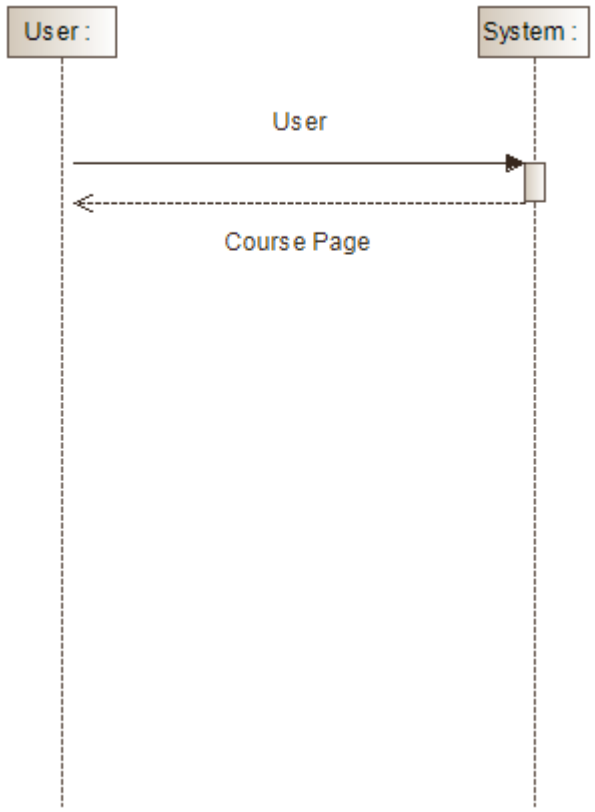
UC-5


User :
System :
Vote (Direction)
Count

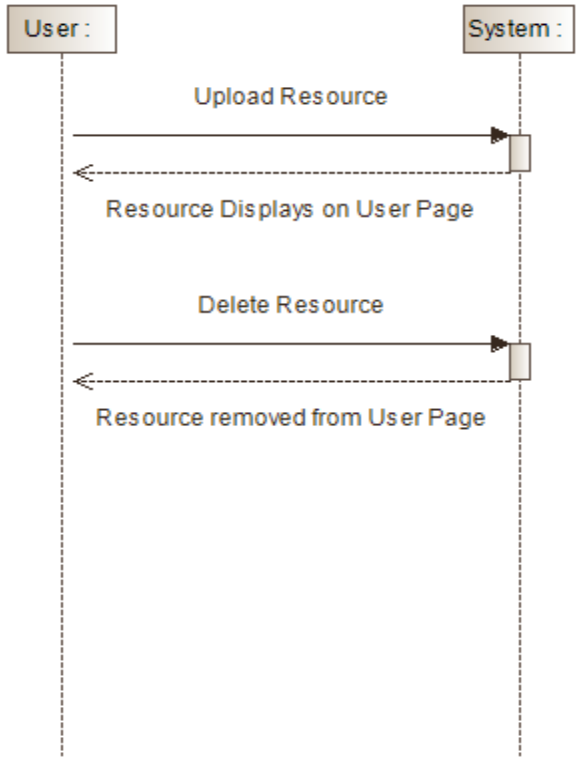
UC-6



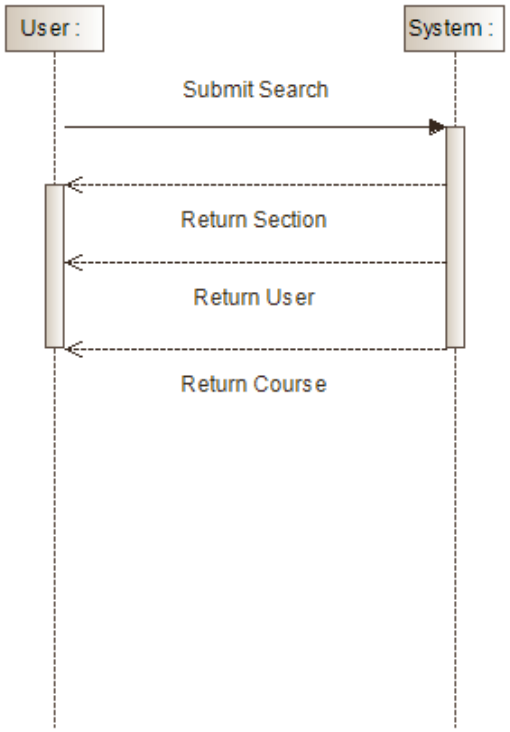
UC-7



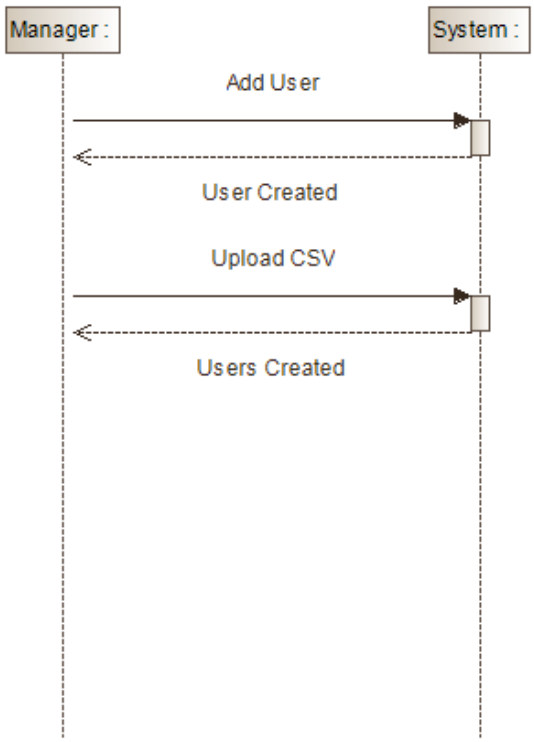
UC-8


User :
System :
Upload Resource
Resource Displays on User Page
Delete Resource
Resource removed from User Page

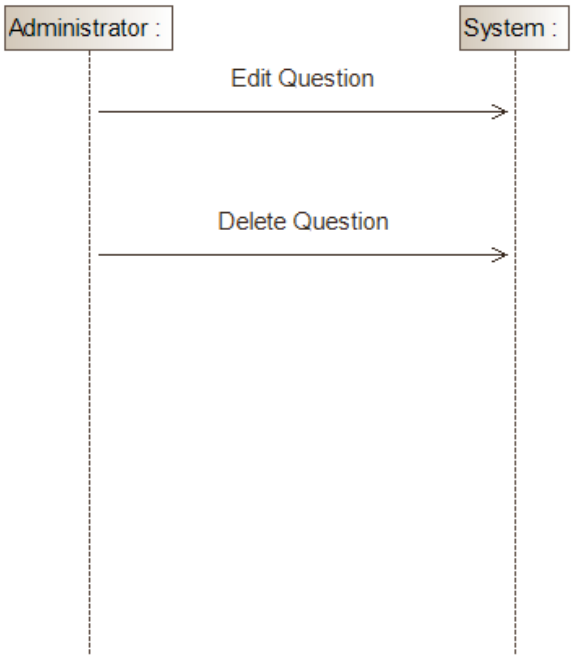
UC-9


User :
System :
Submit Search
Return Section
Return User
Return Course

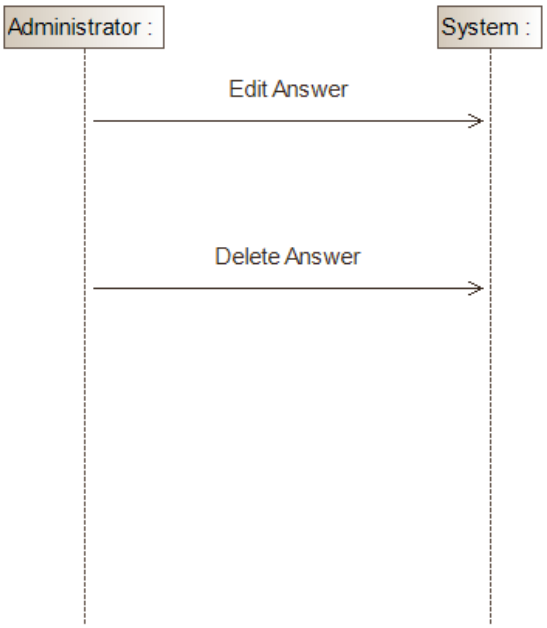
UC-10


Manager :
System :
Add User
User Created
Upload CSV
Users Created

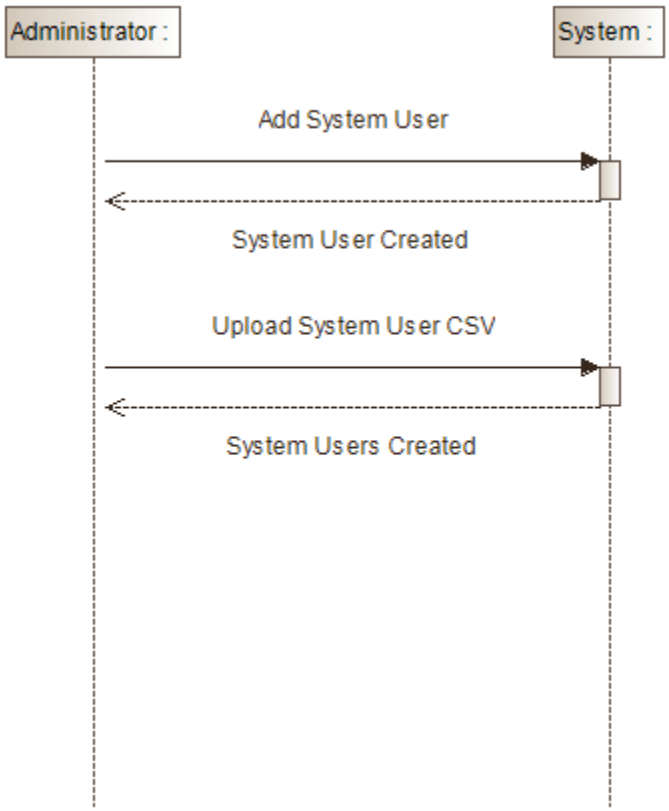
UC-11


Administrator :
System :
Edit Question
Delete Question

UC-12


Administrator :
System :
Edit Answer
Delete Answer

UC-13


Administrator :
System :
Add System User
System User Created
Upload System User CSV
System Users Created