

1. TEAM

2. TITLE

3. PROJECT SUMMARY:

4. PROJECT REQUIREMENTS:

- Business Requirements:
- Non Functional Requirements:
- Functional Requirements:
- User Requirements:

5. USE CASES

- Use Case Diagram:
- Use Case Documents:

6. ACTIVITY DIAGRAMS

- Search Activity Diagram:
- Rate and Review Activity Diagram:
- Messaging Activity Diagram:

8. UI MOCKUP

9. SEQUENCE DIAGRAMS

- Search Sequence Diagram:
- Rate and Review Sequence Diagram:
- Send Message Sequence Diagram:

10. CLASS DIAGRAMS

1. TEAM

Ruhi Saraf
Samarpita Debnath
Santhanakrishnan Ramani

2. TITLE

Ralphies Tutor

3. PROJECT SUMMARY:

A Tutor searching app where Tutors can register themselves and students can find tutors. It has separate login account for Admin, Tutors and Students with different functionality. The system allows students and tutors to create and maintain their own profiles. Users are able to search for tutors and students depending on search criteria they provide to the system. From the sorted search result list, users can view other user's profiles and start a conversation. Students can review tutors, system displays the individual reviews as well as average rating on the tutor's profile. System allows Admin to verify tutors before they join the network and add subjects to database. Users can also delete their profiles to leave the network. System can block users if abuse is reported against them by other users.

4. PROJECT REQUIREMENTS:

Business Requirements:

Business Requirements				
ID	Requirement	Topic Area	User	Priority
BR-001	Email addresses should only be @colorado.edu.	Login	Student	High

Non Functional Requirements:

Non-Functional Requirements				
ID	Requirement	Topic Area	User	Priority
NFR-001	Keep a log file of searches made by students/tutors.	Search	Students, Tutors	Low
NFR-002	All passwords must be hashed before being saved in database.	Login	All	High

Functional Requirements:

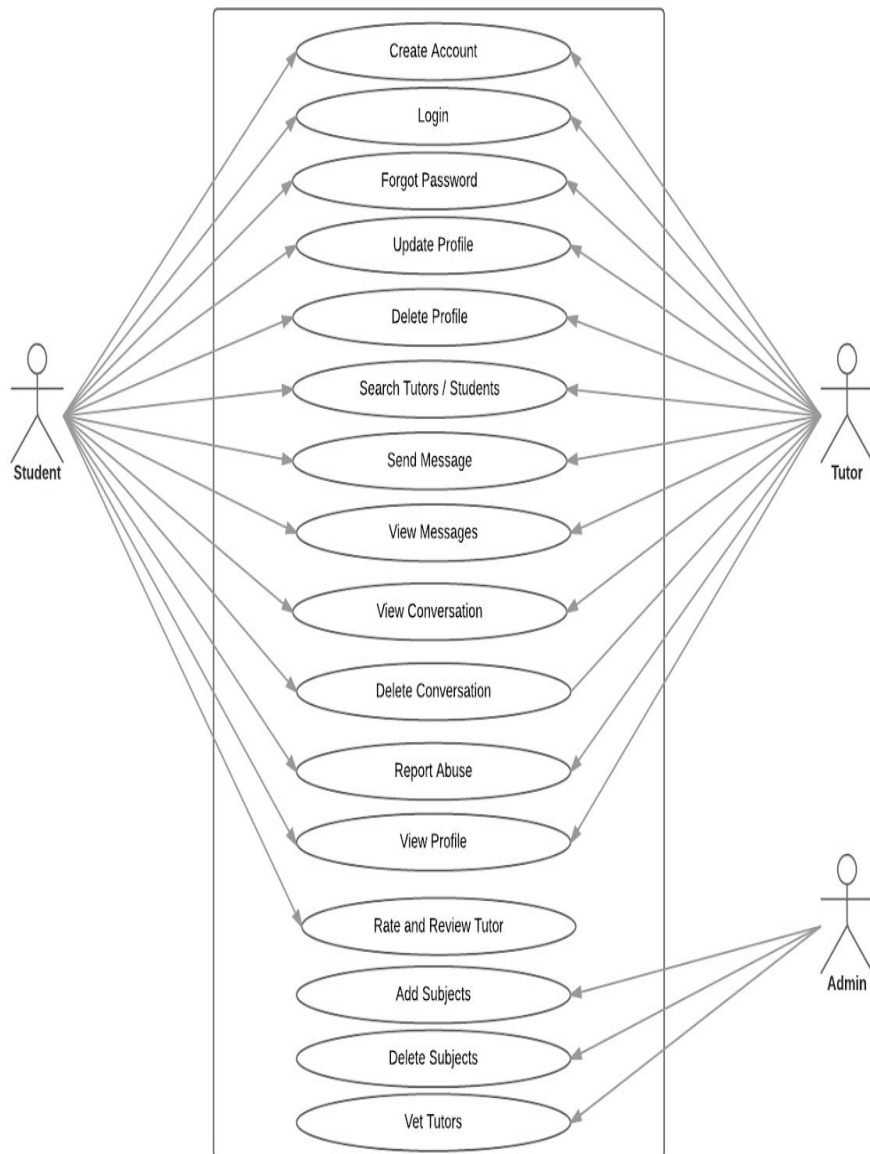
Functional Requirements				
ID	Requirement	Topic Area	User	Priority
FR-001	A verification email must be sent to a user when they sign up.	Login	Student, Tutor	High
FR-002	A notification email must be sent to tutors when they are vetted by the admin.	Login	Admin, Tutor	High
FR-003	A tutor's average rating must be computed and displayed to all the users.	Profile	Tutor	Medium
FR-004	After searching, list of profiles should be sorted in different ways.	Search	All	High
FR-005	A notification email must be sent to all users when new subjects are added / deleted from the database.	Subjects	All	High
FR-006	A notification email is sent to the tutor when he / she is reviewed by a student.	Rate N Review	Tutor	Low
FR-007	An email is sent to User if his profile is not visible and he has been searched for to ask for visibility permission.	Search	Student, Tutor	Low

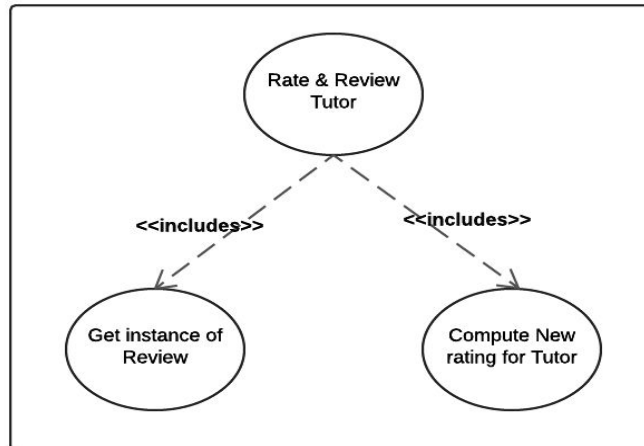
User Requirements:

User Requirements				
ID	Requirement	Topic Area	User	Priority
UR-001	As a student/tutor I should be able to create an account so that I can explore the system.	Create Account	Student, Tutor	High
UR-002	As a student/tutor I should be able to login so that I can begin using the system.	Login	All	High
UR-003	As a student / tutor I should be able to delete my profile so that I can leave the network.	Delete	Student, tutor	Low
UR-004	As a student/tutor I should be able to update my profile so that I can make changes based on my current abilities / requirements.	Profile	Student, Tutor	High
UR-005	As a student / tutor I should be able to search for other tutor/student so that I can find people who meet my requirements.	Search	All	High
UR-006	As a student / tutor I should be able to view other user's profiles so that I can determine if any user matches my needs.	View Profile	Student, Tutor	High
UR-007	As a student / tutor I should be able to contact other tutors / students so that I can let them know I think we might be a good fit for each other.	Messaging	All	High
UR-008	As a student I should be able to rate & review tutors	Rate & Review	Student	Medium
UR-009	As a student / tutor I should be able to report abuse / block individuals so that they cannot contact me.	Report Abuse	All	Medium
UR-010	As an Administrator I should be able to add / delete subjects that students can request tutoring for.	Subjects	Admin	Medium
UR -011	As an Administrator I should be able to verify tutors, add / delete users	Verification	Admin	Medium

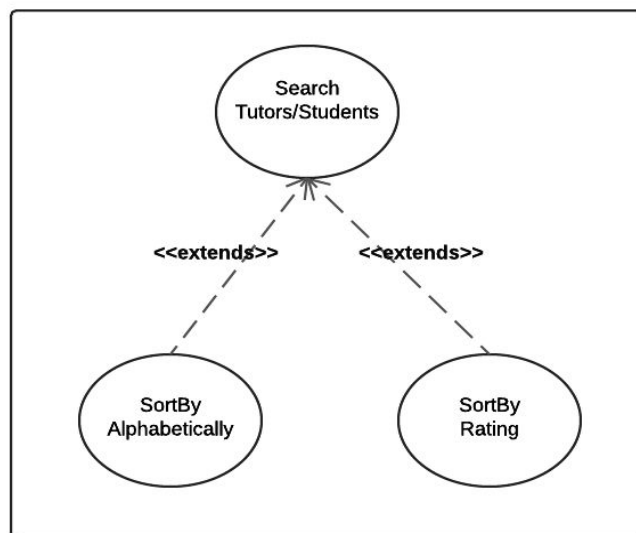
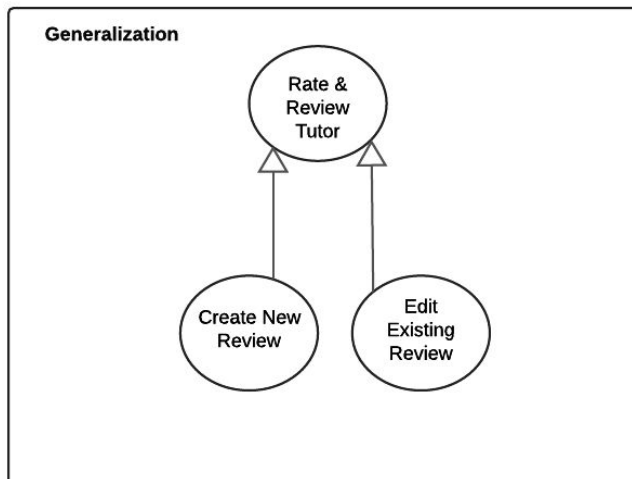
5. USE CASES

Use Case Diagram:





Generalization



Use Case Documents:

Use Case ID	UC - 01		
Use Case Name	Create Account		
Description	Creates an empty account for a user		
Actors	Tutors , Students		
Pre-Conditions	There is space in the DB The information is in a valid format Same email address does not exist in the system		
Post-Conditions	A user account is created with the profile filled in with information given while registering and can be logged into		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User clicks on Sign Up and enters a) Name b) Email address c) password	System verifies a) Email is in correct format (@colorado.edu) b) It does not already exist in the database and responds
	2.		Next System a) Hashes password b) Creates a new user account c) Sends verification email to user
	3.		.
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 02		
Use Case Name	Login		
Description	User logs into the system using the email address and password		
Actors	Tutors , Students , Admin		
Pre-Conditions	User already has an account in the system User has verified his/ her email address		
Post-Conditions	A view of the user's profile is visible to the user		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User opens the app and enters a) Email address b) password	System verifies by a) querying for email b) comparing hashed passwords
	2.		a) Takes you to the view page of the user
Variations	Incorrect Password Entered		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 03		
Use Case Name	Forgot Password		
Description	User forgets the password and receives an email on registered address to reset it		
Actors	Tutors , Students , Admin		
Pre-Conditions	User already has an account in the system		
Post-Conditions	New password is set for the user		
Frequency	Occasionally		
Flow of Events		Actor Action	System Response
	1.	User clicks on forgot password	Is asked to input email for verification purposes
	2.	Enters the email address	System then: a) verifies b) email is sent to the address with a link that has a query to update the password field in the database
	3.	User opens the link enters the password and clicks on update	a) Password is modified in the database b) user is prompted to login again using the new password
Variations	Invalid email address		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 04		
Use Case Name	Update Profile		
Description	Users update the contents of their profile which includes their Name, Contact, Academic & Professional Interests, Subjects, Timings availability, Pricing etc.		
Actors	Tutors , Students		
Pre-Conditions	User has logged into the system		
Post-Conditions	Following information is updated in their database and is used while creating a view with their profile information		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User clicks on edit profile	System opens a view that enables editing
	2.	User modifies information and clicks on save	Systems a) Verifies information is in correct format b) Updates and saves new information
Variations			
Notes and Issues	Modifying your profile while someone else is viewing it opening account on multiple devices and trying to modify at the same instance.		
Developer Notes			

Use Case ID	UC - 05		
Use Case Name	Delete Profile		
Description	For every user there will be an option to delete their profile from the system		
Actors	Tutors , Students		
Pre-Conditions	User has logged into the system		
Post-Conditions	User no longer has an account in the system		
Frequency	Rarely		
Flow of Events		Actor Action	System Response
	1.	User clicks on delete profile	Prompts the user to re enter password
	2.	User enters password	System a) verifies authenticity b) asks for confirmation and deletes the profile
Variations	Incorrect password while authenticating		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 06		
Use Case Name	Search Tutor / Students		
Description	Tutors / Students should be able to search for each other using various Profile parameters		
Actors	Tutors , Students		
Pre-Conditions	User is logged into the system		
Post-Conditions	User receives a list of requested users ranked based on maximal matching - minimal matching against parameters		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User goes on search - fills in various parameters such as Type, subject, location, timings, pricing etc.	System a) queries the database b) logs information into the log file c) Sorts results
	2.		a) gives out a view with the results.
Variations	Search by Various parameters		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 07		
Use Case Name	Send Message		
Description	User is able to send a message to another user		
Actors	Tutors , Students		
Pre-Conditions	User is logged in		
Post-Conditions	Message is sent from one person to another and conversation is visible to both		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User clicks on another user's name and clicks on send message option	System opens a view with text box to insert text
	2.	User types in text and clicks on send	Systems sends the information into the messages tab of the other user along with metadata
	3.		
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 08		
Use Case Name	View Conversations		
Description	Tutors/ Students can check their messages / Delete ones they don't want		
Actors	Tutors , Students		
Pre-Conditions	User is logged in		
Post-Conditions	User is able to view messages if any		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User clicks on conversations tab	system displays the conversation with option to delete it, open it,
Variations	No Conversations Exist		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 09		
Use Case Name	Delete Conversation		
Description	User can delete existing conversations		
Actors	Tutors, Students		
Pre-Conditions	There must exist a conversation to delete		
Post-Conditions	Particular Conversation no longer exists		
Frequency	Rare		
Flow of Events		Actor Action	System Response
	1.	User clicks on Messages tab	Displays all current conversations
	2.	User clicks on delete option beside the thread	Asks for confirmation
	3.	User provides confirmation	Deletes the message from this user's database
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 010		
Use Case Name	View Messages		
Description	Tutors/ Students can check their messages / Delete ones they don't want		
Actors	Tutors , Students		
Pre-Conditions	User is logged in		
Post-Conditions	User is able to view messages if any		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	User clicks on the conversation	system displays all the messages in the conversation
Variations	No Messages Exist		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 11		
Use Case Name	Report Abuse		
Description	Student or Tutor can Report Abuse of Each other if they are offended by any activity on the app		
Actors	Tutors, Students		
Pre-Conditions	User must be logged in		
Post-Conditions	Notification is sent to admin and the reported user about report abuse		
Frequency	Rare		
Flow of Events		Actor Action	System Response
	1.	Student/Tutor respectively goes to the Report Abuse Tab and checks the flag	User is prompted for a reason to report abuse.
	2.		The corresponding user is then notified about being reported and their ability to contact other people on the forum is disabled
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 12		
Use Case Name	View Profile		
Description	Allows user to view the profile of another user		
Actors	Student / Tutor		
Pre-Conditions	User must have logged in		
Post-Conditions	The user views profile of other users		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	The user clicks on another user's name	System retrieves information about that user and displays the profile
Variations	Users Profile Not Visible		
Notes and Issues			
Developer Notes			

Use Case ID	UC - 13		
Use Case Name	Rate and Review Tutor		
Description	The student is able to rate and review tutor		
Actors	Student		
Pre-Conditions	Student must have logged in		
Post-Conditions	Review of the tutor is available on his profile		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	Student clicks on rate n review tutor	System opens a view with a) rating out of 5 b) review description
	2.	Student fills in details.	System a) saves it on tutors database b) calculates new tutor rating c) notifies tutor of review
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 14		
Use Case Name	Add Subjects		
Description	To Add subjects that are or will be offered		
Actors	Admin		
Pre-Conditions	Subject with the same id should not exist in the system		
Post-Conditions	Subject is visible in the drop-down menu when users add / remove subjects from their profile		
Frequency	Moderately		
Flow of Events		Actor Action	System Response
	1.	Admin adds the details of the new Subject	The subject gets inserted to the Subject table in the database.
			Users are notified of the new subject addition.
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 15		
Use Case Name	Delete Subjects		
Description	To Delete subjects that is being offered		
Actors	Admin		
Pre-Conditions	Subject must exist in the system		
Post-Conditions	Subject is no longer in the drop down menu, all users tutoring for asking for tutoring for the subject are notified		
Frequency	Moderately		
Flow of Events		Actor Action	System Response
	1.	Admin presses delete on the subject	The subject gets deleted from database
			Users are notified of the deletion of the subject
Variations			
Notes and Issues			
Developer Notes			

Use Case ID	UC - 16		
Use Case Name	Vet Tutors		
Description	The admin and the system Vets the tutor carefully before making him appear in the list of tutors		
Actors	Admin , Tutor		
Pre-Conditions	Tutor must have signed up with an account		
Post-Conditions	The tutor is able to send receives messages		
Frequency	Often		
Flow of Events		Actor Action	System Response
	1.	The tutor signs up as a Tutor	System runs a) application completeness verification and background check. b) sends the check results to Admin.
	2.	Admin approves/rejects the tutor based on check result.	System notifies the tutor accordingly by mail.
Variations			
Notes and Issues	Background check can for now be a dummy function that always results in true		
Developer Notes			

6. ACTIVITY DIAGRAMS

Search Activity Diagram:

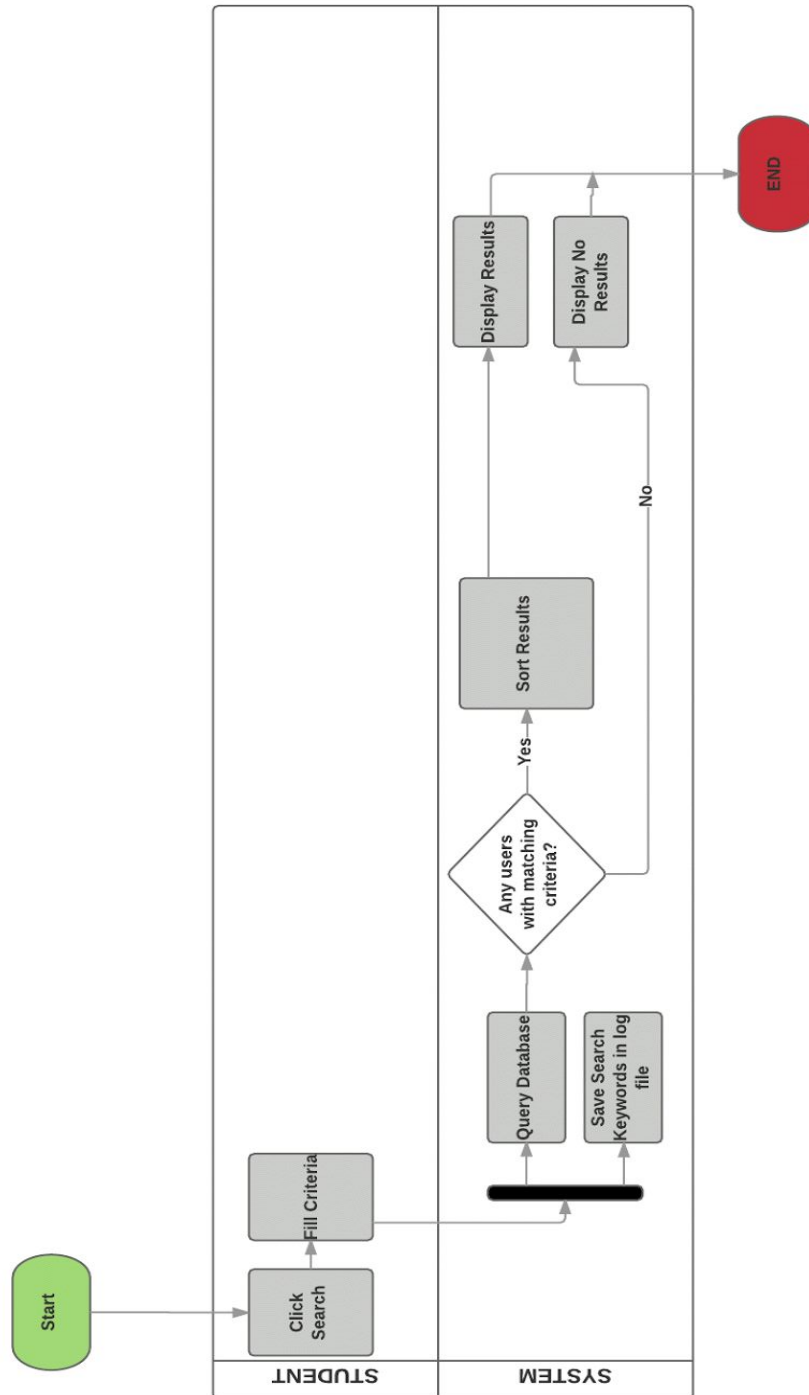
Requirement ID: UR -005,, FR -007, NFR-001

Use Case ID: UC - 06

Use Case Name: Search User

SEARCH_ACTIVITY_DIAGRAM

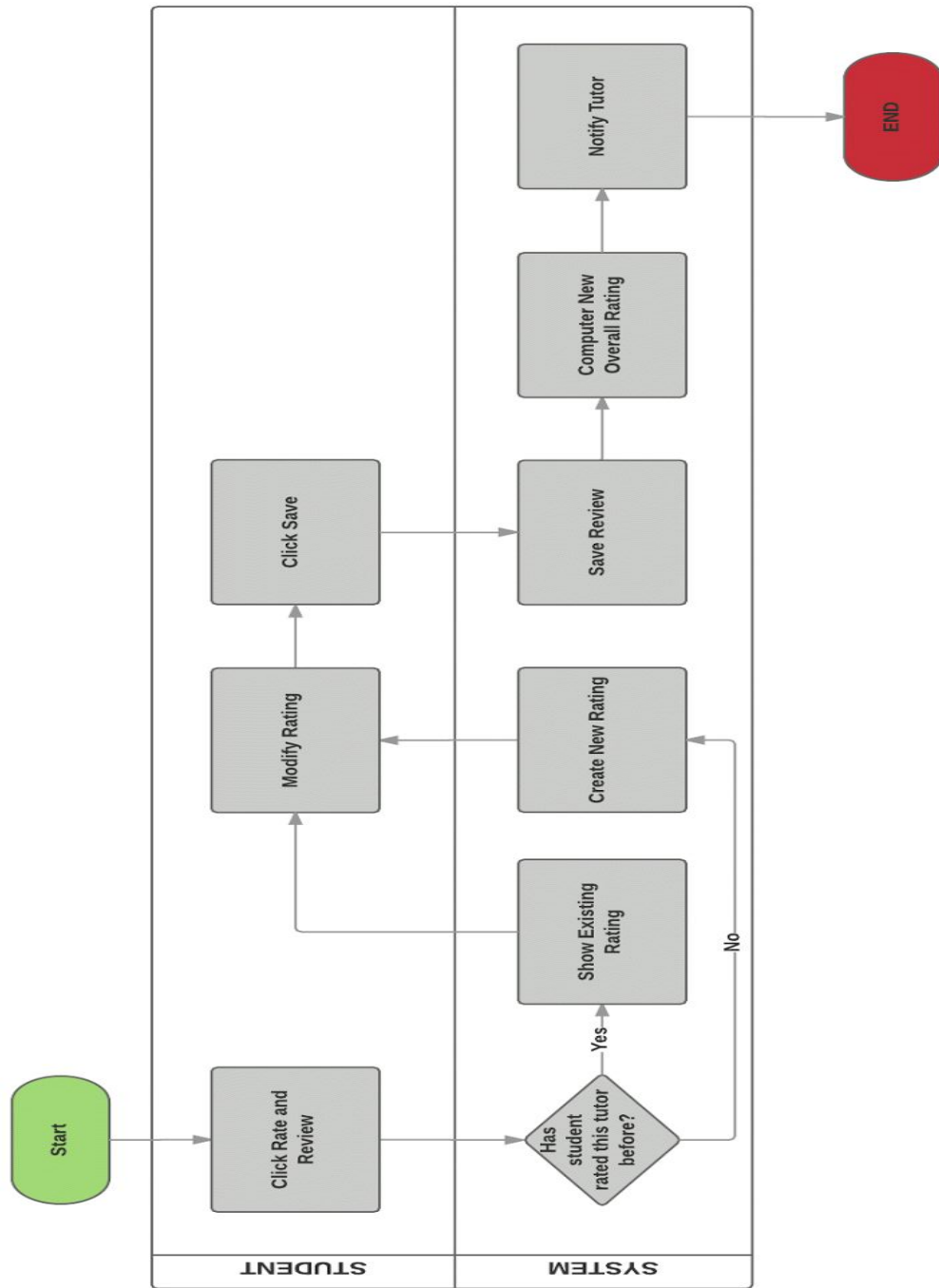
ruhi saraf | March 9, 2016



Rate and Review Activity Diagram:
Req ID: UR - 008, FR -006,
Use Case ID: UC - 12
Use Case Name: Rate N Review Tutor

RATE AND REVIEW TUTOR

santhanakrishnan ramani | March 9, 2016



Messaging Activity Diagram:

Req ID: UR-007

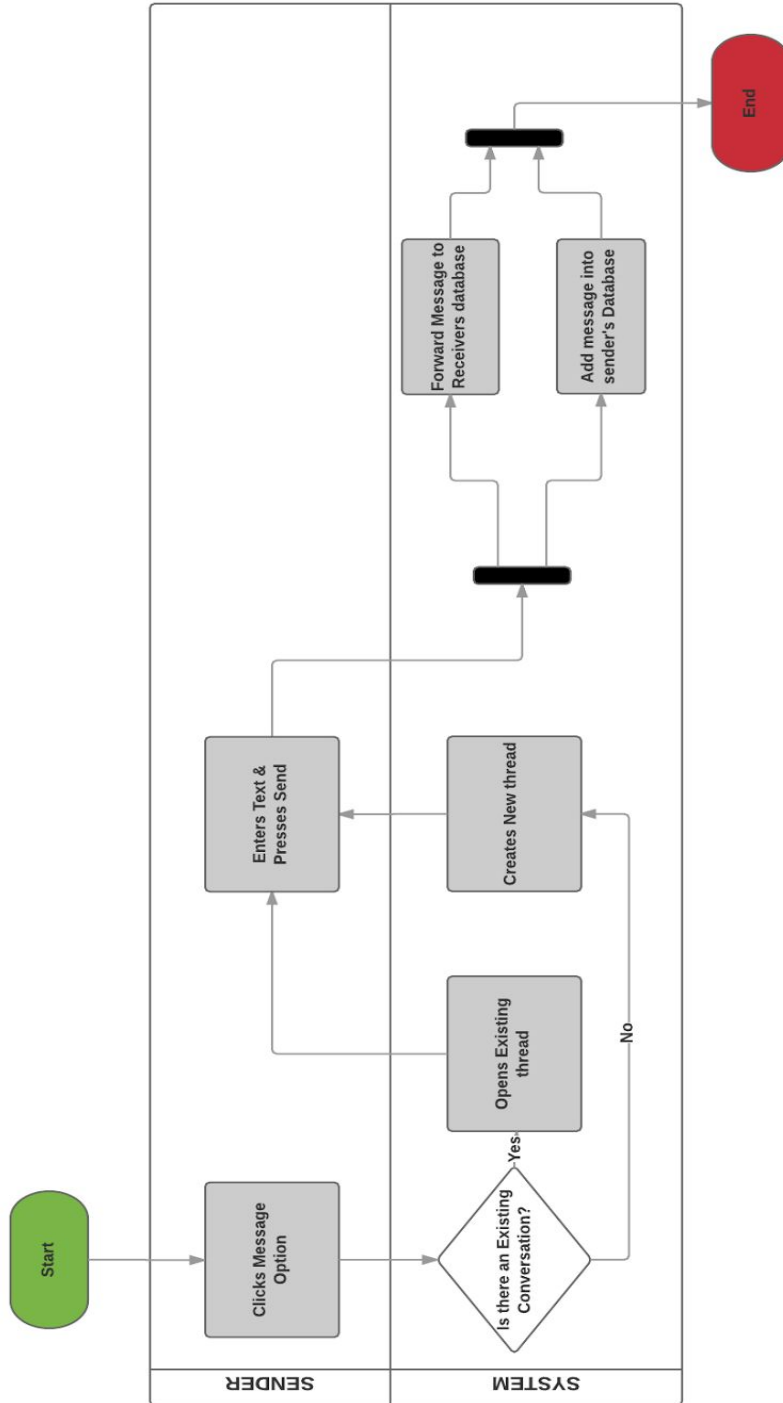
Use Case ID: UC-07

Use Case name: Send Message

Samarpita Debnath

samarpita | March 9, 2016

MESSAGE



7. DATA STORAGE:

Database Intended to use: A NoSQL DB like MongoDB, CouchDB etc with PHP / Python scripts to run queries

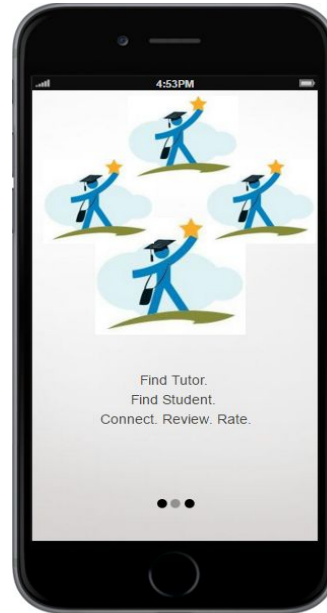
Collections: User, Subjects, Universities, Availabilities stored as JSON files

Classes: UserModel Class to store / modify Users, Util Model Class to store / modify Subjects

8. UI MOCKUP

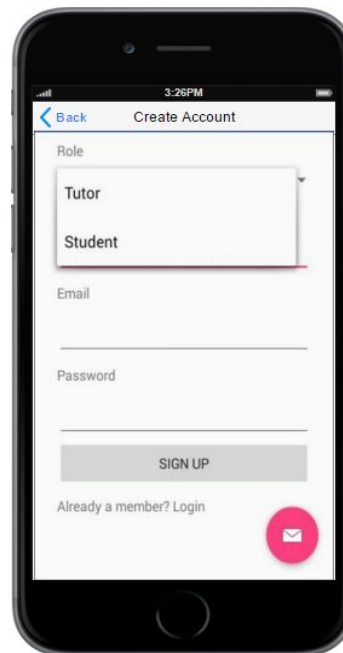
1. Welcome Screen (Logo and Tagline):

2. Welcome Screen with app functionality (for the first time users)

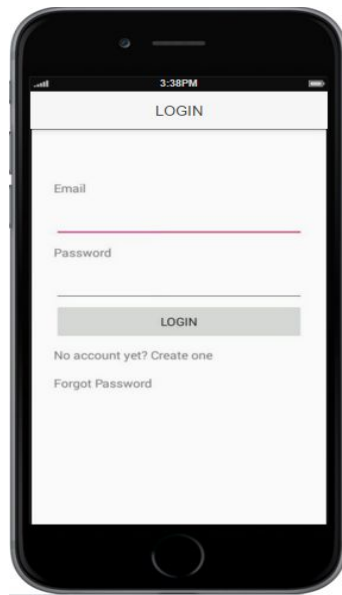


3. Welcome Screen (for the first time users).

4. Create account:



5. Login:



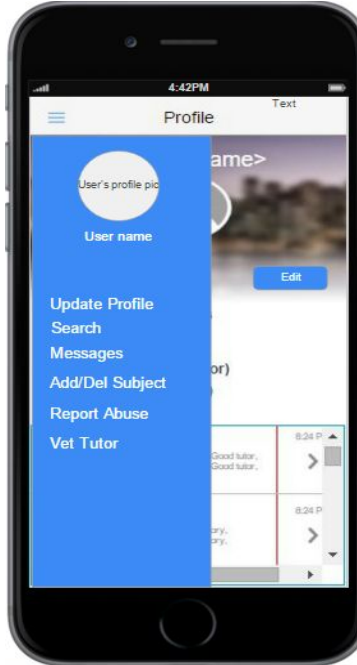
6. Forgot Password:



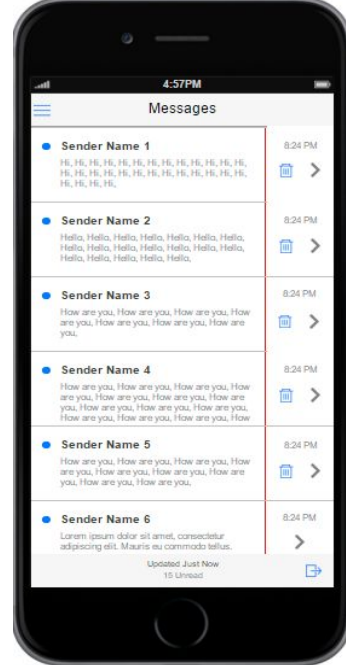
7. Profile:



8. Options:



9. Messages:

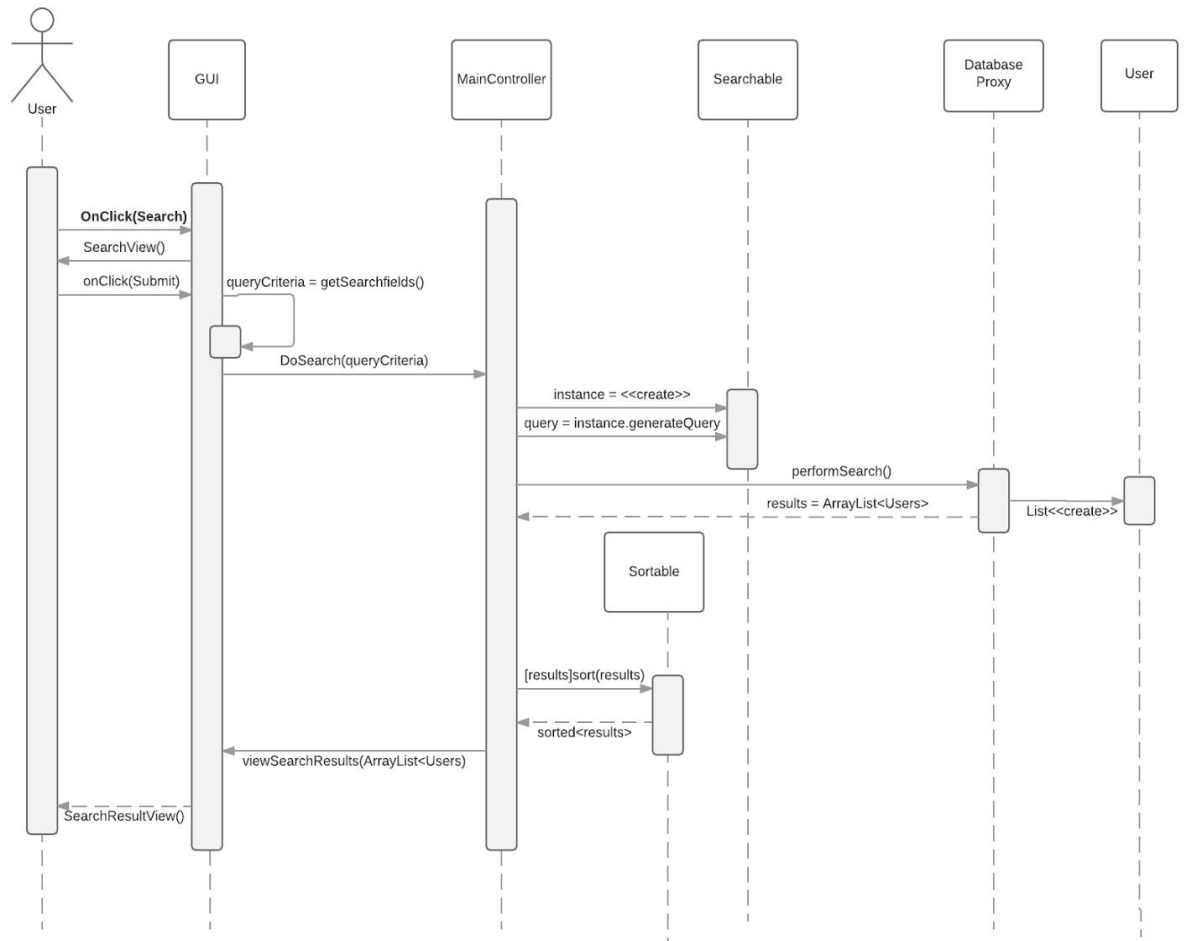


9. SEQUENCE DIAGRAMS

Search Sequence Diagram:

SEARCH SEQUENCE DIAGRAM

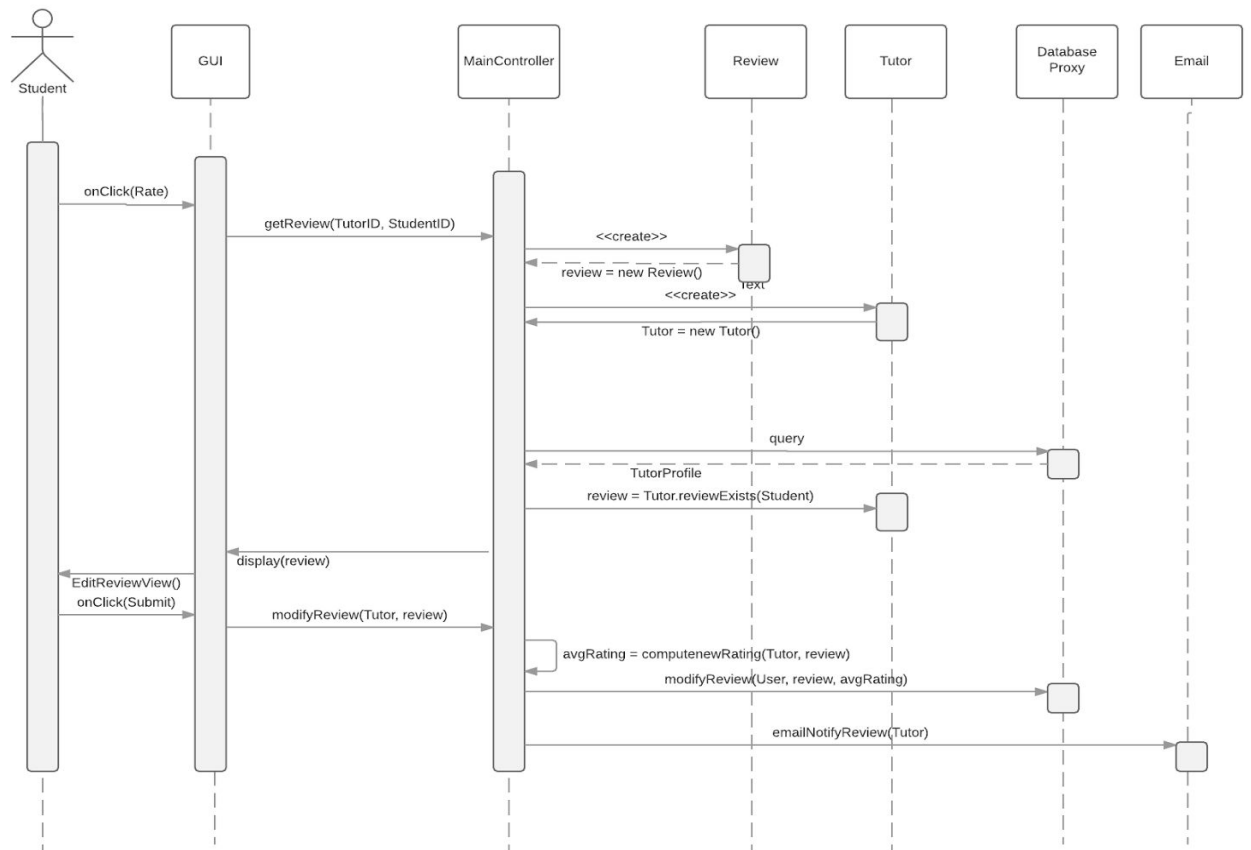
ruhi | March 9, 2016



Rate and Review Sequence Diagram:

RATE AND REVIEW SEQUENCE DIAGRAM

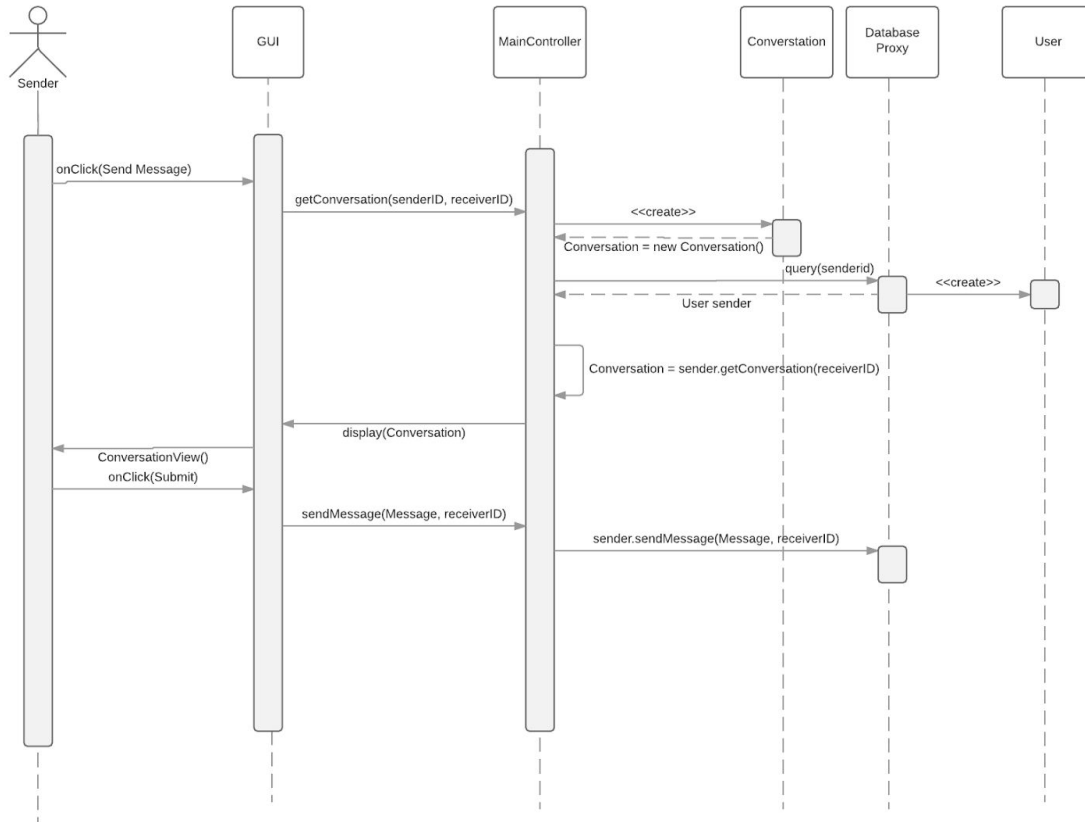
santanankrishnan ramani | March 9, 2016



Send Message Sequence Diagram:

SEND MESSAGE SEQUENCE DIAGRAM

samarpita | March 9, 2016



10. CLASS DIAGRAMS

