

StudyGrouper

[GitHub](#)

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1. Project General Description

Study Grouper is an app designed to help students find local tutors in their area for whatever course or topic they're learning about. Users would be able to create a chat room for their study group that other users can search for and join. The study group's provider would be able to set a location for the group to meet that other users in the study group would be able to see in a map view. The primary motivation for the app is to help students in similar studies connect with each other and hopefully boost their grades as a result.

2. Product Features

The StudyGrouper application is designed to aid students in their academic journeys by providing an easy way to find tutors in their communities. There are a couple of key features:

- **Chat Rooms:** Users can communicate with their study groups in real time, allowing them to ask questions and problem solve any topic they're struggling with remotely.

StudyGrouper ensures that the tutor can moderate the conversation in case any of the users are being inappropriate in the chat.

- **Study Group Finder:** Users can find a list of study groups in their area that they can join using an optional password provided by the tutor. By finding study groups in the area, users are more likely to engage with their study group and use it for their academics, especially in a campus environment.

- **Personal Profile Creation:** Users can have their own unique usernames in order to help express themselves.

3. Functional Requirements:

- Users will be identified by a username and password.
- Users should be able to search and find study groups based on keywords or group ID.
- Provider should be able to create a room.
- Administrators will have their profile created for them.
- Administrators will be able to review/delete reviews of tutors.
- Administrators will be able to look at statistics including: number of users, number of providers, number of chat rooms, average size of chat rooms.
- Administrators should be able to see the history of reviews for each user.

4. Non-functional Requirements:

- Reviews need to have a maximum character capacity.
- Usage of the home page should be intuitive and easy to follow, requiring bare minimum training to use.
- Reviewing reviews should take no longer than 20 seconds.
- The project needs to be able to be written within 3 months.
- Messages and reviews should be stored into the database to be accessible for admin Review.

5. Use Cases

Customer Use Cases (Bennett):

● Create/modify profile:

○ Normal case

- A user is interested in creating a profile to join study groups.
- The customer enters the web address and loads up the homepage of the website.
- The customer selects the profile icon on the home page.
- The customer selects the “login or sign up” option from the profile icon.
- The login page is loaded.
- The customer selects the “create new account” option.
- Create account page is loaded.
- The customer fills in account information.

● Information includes:

- Account type: student
- First name
- Last name

○ School email

○ (Optional) add profile picture

- Customer selects “finish”.
- Customers profile page is loaded with all information they provided, a settings option, and a link to home page, and a logout option.
- Customer decides they want to change their profile picture.
- Customers can select the profile icon on the home page to go to the account page.
- Account page is loaded.
- Customer selects settings option, then edit profile option in the settings.
- Customer clicks on the profile picture icon in the profile edit page.
- The customer’s file system pops up.
- Customers add a picture from their file system by selecting the image from in their file system.
- Customer selects “save”.
- Customer is then redirected to their profile page with the updated picture.

○ Not normal case:

- Customer is creating a profile and enters an email that is already in use.
- Customer is provided an error above that text box stating that the email is in use and to either provide a new email or sign in with the existing one.
- Customer returns to the home page and selects the login option under the profile icon.
- Customer enters the email that is already in use and its password and selects to login.
- Customer is now logged in.

● View available services:

○ Normal case:

- Customer wants to find a study group.
- Customer enters the web address and is directed to the home page.
- Customer selects the search option in the home page.
- Customer is redirected to a page with a search bar at the top and a display of study groups from the database is displayed underneath the bar.
- Customer clicks on the search bar.
- Customer types in the course name, the instructor/tutor name, or the study group id into the search bar and hit enter.
- A new search page is loaded with study groups that match that search..
- Customers can now view a specified search of study groups, or a general page of all study groups in any order.

○ Not normal case:

- Customers can search for a course in the search page.
- Customer enters in the wrong name and an incorrect results page pops up.
- At the top of the page it says what String the system is searching on.
- Customer clicks on the search bar and clears the current search.
- Customer retypes the search to what was really wanted.
- Proper search results display.

● Subscribe to services:

○ Normal case:

- Customer wants to join a study group.
- Customer selects a search option on the home page.
- Customer types in the name of the course, the name of the instructor/tutor, or the group id and hits enter.
- A list of courses that match the description are displayed in a new page.

- Customer navigates to a group that they want to join.
- Customer selects the “join group” option on the group.
- Customer is now subscribed to that group.
- Customer navigates to the home page.
- A list of the study groups they are subscribed to is displayed.

○ Not normal case:

- Customer is in a search for a group to join.
- A list of results is displayed, but the one they want to join is not displayed because the group is private.
- Customer messages the instructor/tutor of the group from their provided external contact in their profile and asks to be added to the group.
- Provider adds the customer to the group.
- Customer is now subscribed to the study group.

Customer Scenario: Join a study group

Initial Assumption:

- The customer already has just made a student account that they are logged into and are already in the menu.

Normal:

- The customer selects the “Find Group” button from the menu.
- The page allows the user to input a search query for a specific group name and/or topic, before returning a list of nearby groups matching the name to the user.
- The customer clicks on a group and it brings them to a page with more details about it.
- They select the “Join Group” button from the details page.

What can go wrong:

- The customer accidentally joins the wrong group than the one they originally intended to join.

System State on Completion:

- After the customer joins a group, they are taken to the group's chat room, where they can discuss academic and meeting-related topics with the rest of the group.
- They can return to the menu from the group's chat room at any time and vise-versa.

Provider Use Cases (Adam):

- Create/modify/withdraw profile:
 - Provider wants to create a provider account.
 - Provider locates the home page of StudyGrouper and selects the profile icon.
 - Provider selects the "login or sign up" option.
 - Provider is redirected to the login or sign up page.
 - Provider selects sign up option.
 - Provider enters information.

■ Information Includes:

- Account Type: Tutor/Instructor
- First Name
- Last Name
- Email (university email preferred)
- (Optional) phone number
- (Optional) profile picture
- (Optional) list of courses tutoring

○ Provider selects “finish”.

○ Provider is redirected to a profile page with all information, an option to logout, an option to delete account, a settings option, and a link to the home page.

● Create services:

○ Provider wants to create a study group.

○ From the home page, the provider selects the “Create study group” option.

○ Provider is redirected to a page to fill out required information.

■ Information Includes:

- Course name
- Max group size

○ Provider fills out information and selects “Create”.

○ Provider is redirected to the home page with the new group created.

● View customer stats:

○ Provider wants to view student stats in one of their study groups.

○ Provider located the specific study group.

○ Inside the group, the provider selects the three-line menu bar option.

○ Provider selects the “view student stats” option.

○ Providers can view items in the student stats page.

■ Items in student stats page:

● List of students.

● Reply to review:

○ Normal case:

■ Provider wants to reply to a review.

■ Provider locates the home page of the website.

■ Provider logs in by clicking on the profile icon, selecting login, entering credentials, and selecting login.

■ Provider is redirected to the home page

■ Provider locates the reviews page from the home page

■ A list of reviews of them and their groups is displayed starting with the most recent

■ Provider selects a review to reply to by clicking on the review.

■ A pop up comes up with the review and a response textbox to respond.

■ Provider enters their response that fits into the character capacity for a response

■ Provider hits submit

■ Response is sent

○ Not normal case:

■ Provider is entering a response

■ Provider enters a response that is too long for the character capacity

■ Provider rephrases response to fit into the word limit

■ Provider hits submit

Provider Scenario: Scheduling a meeting for a study group

Initial Assumption:

- The provider is logged in under a tutor account and is currently in their group's chat room page.

Normal:

- The provider discusses with the group about meeting times that work with everyone
- The provider clicks on the "..." icon to pull up options for the study group in a dropdown, where they can select "meeting times" as an option.
- Upon entering the meeting times view, the provider can enter in the day(s) and time(s) every day the group is scheduled to meet, along with a description of where they're meeting inside of an input.

What can go wrong:

- The provider can accidentally set the wrong day or time for the meeting.
- Not every customer may remember to check the new date and time for the study group's meetings.

System state on completion:

- The provider can return to the chat room, where the customers can now see the new date(s) and time(s) for when and where the study group is meeting.

SysAdmin Use Cases (Logan):

● Manage user access:

- The admin can ban users based on user reports and get more details on that user to assess if the reports are valid.
- The admin can pull up the chat logs of an individual user in the moderation page.

● Moderate services:

- The system admin can review study group chat logs and make informed decisions about removing study groups.
- Admin can look at the view users page to see users that need to be removed.

● View usage stats:

○ Normal case:

- Admin navigated the home page of the website.
- Admin logs into their account by clicking on the profile icon on the home page, selecting login, entering their credentials, and hitting login.
- Admin is redirected to their home page.
- Admin selects the statistics icon from the home page.
- Admin is redirected to the statistics page.
- Usage statistics are displayed with the following information:
 - Number of customers.
 - Number of providers.
 - Number of chatrooms open.
 - Average chatroom size.

○ Not normal case:

- Admin navigates to the statistics page.
- Incorrect or invalid data is displayed.

- Admin verifies that the correct information is being pulled via the code base.
- If incorrect, the admin adjusts the code and pushes the changes to be updated.
- Statistics information is now displayed correctly.

SysAdmin Scenario: View and delete a user**Initial Assumption:**

- The admin has access to the webpage and is logged in and at their home screen.

Normal:

- The admin selects the “View Users” option to take them to the user page.
- The page shows all the users on the system.
- They will then be able to delete a user if they wish, they can also see the username and password.

What can go wrong:

- Admin can accidentally select the checkmark when they meant to select x mark.
- After selecting either option there will be an option to select to make sure they are choosing the right option. A verification will take place.

System state on completion:

- Admin will be able to select “Main page” and go back to their homepage.

Scenarios With Screenshots

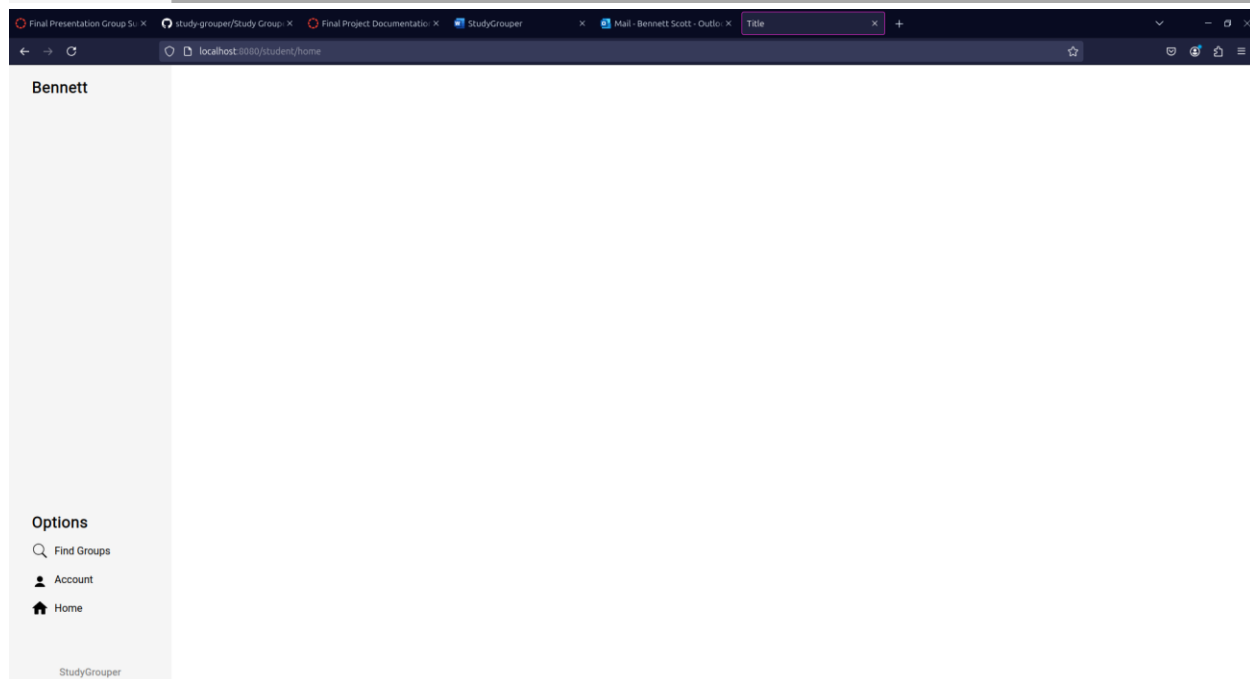
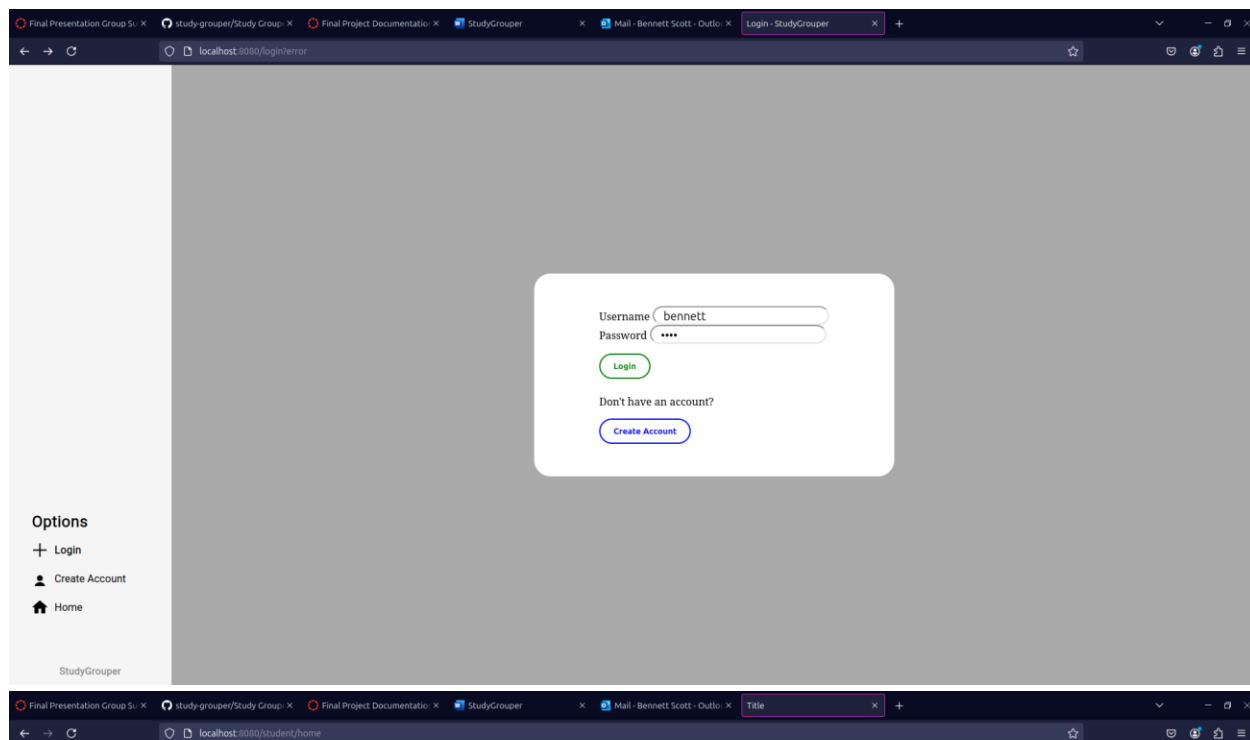
Sign Up – Create an account

The screenshot displays the 'Create Account' page of the StudyGrouper application. The browser's address bar shows the URL `localhost:8080/create-account`. The page layout includes a sidebar on the left with the following elements:

- Options**
- [+ Login](#)
- [Create Account](#)
- [Home](#)
- StudyGrouper

The main content area features a 'Create Account' form with the following fields and controls:

- Create Account**
- First name (text input)
- Last name (text input)
- Username (text input)
- Email (text input)
- Password**
- Password (text input)
- Verify Password (text input)
- Account Type**
- Instructor / Tutor (dropdown menu)
- Create (button)



Student (Bennett) - Logging in, find group, join group, send message, leave group

Username student2

Password password

Login

Don't have an account?

Create Account

Options

- + Login
- Create Account
- Home

StudyGrouper

Gregg

Options

- Find Groups
- Account
- Home

StudyGrouper

Final Presentation Group S: x study-grouper/Study Group: x Final Project Documentatio: x StudyGrouper x Mail - Bennett Scott - Outlo: x Find Groups - StudyGrouper x +

localhost:8080/group/search

Gregg

Enter group name here...

How to Succeed at College

Bea Santello

College is very important!

Constellations and Astronomy

Angus Delaney

Stars are very cool.

Options

- Find Groups
- Account
- Home

StudyGrouper

localhost:8080/group/post-search

Gregg

collegel

How to Succeed at College

Bea Santello

College is very important!

Options

- Find Groups
- Account
- Home

StudyGrouper

9:52 AM

The image displays two screenshots of a web application interface, likely a social or collaborative platform called 'StudyGrouper'.

Top Screenshot: The browser window shows the 'Group Description' page for a group named 'How to Succeed at College'. The URL is `localhost:8080/group/group-description/1`. The page features a header with the group name and a 'Join Group' button. The main content area displays the text 'College is very important!'. The left sidebar includes a user profile for 'Gregg' and a navigation menu with 'Options', 'Find Groups', 'Account', and 'Home'.

Bottom Screenshot: The browser window shows the 'Group View' page for the same group. The URL is `localhost:8080/group/student/1`. The page features a header with the group name and a settings gear icon. The main content area displays a user profile for 'Gregg Lee' (username: `jfkidsfjkd`) and a text input field containing 'Hello world'. The left sidebar is identical to the top screenshot.

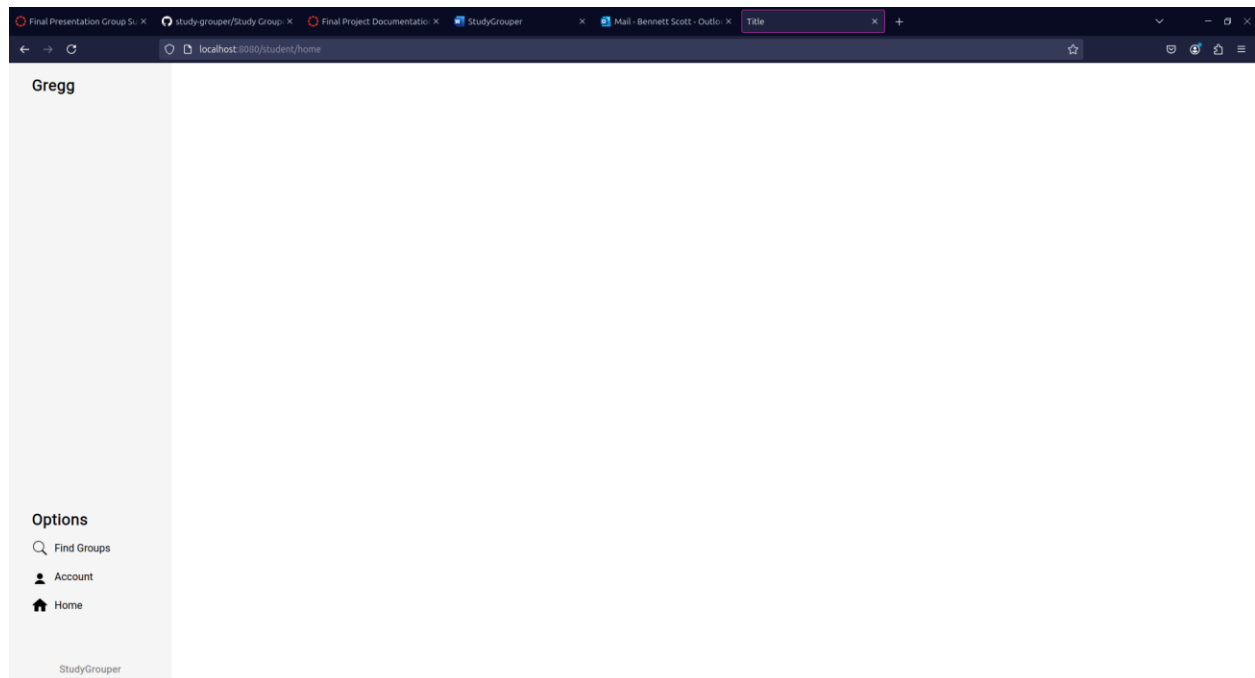
The image displays two screenshots of a web application interface, likely for a study group management system called 'StudyGrouper'.

Top Screenshot (Group View):

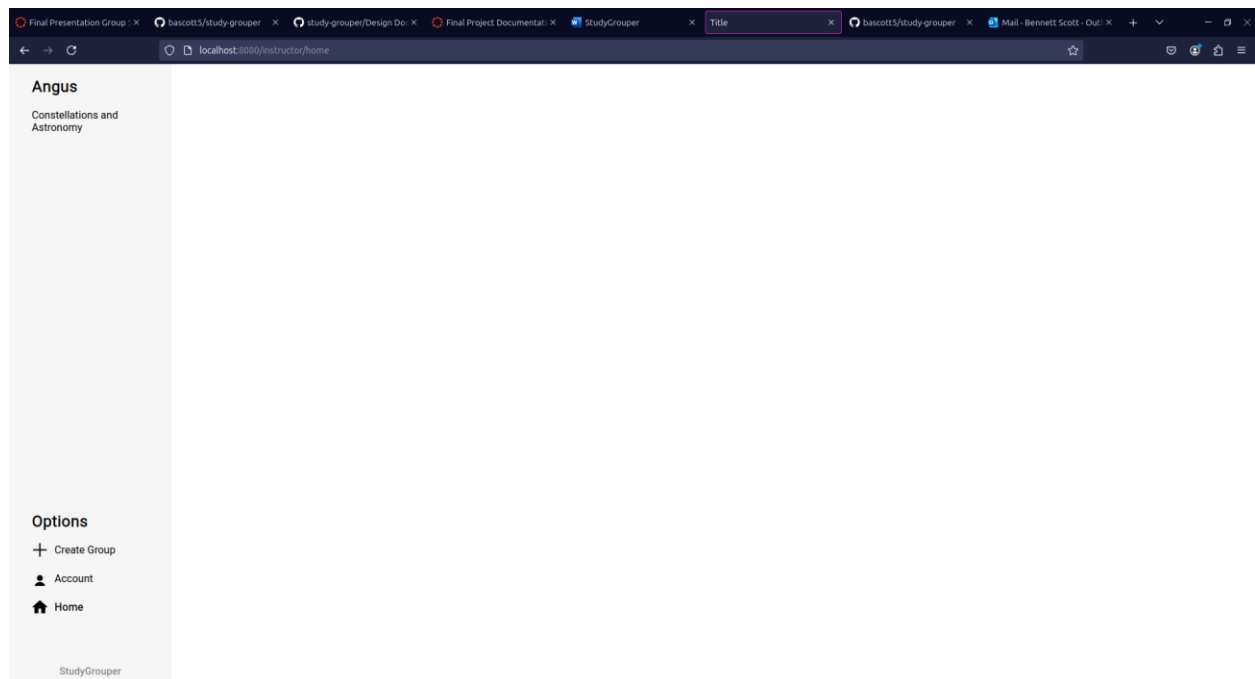
- Browser Tabs:** Final Presentation Group S..., study-grouper/Study Group..., Final Project Documentatio..., StudyGrouper, Mail - Bennett Scott - Outlo..., Group View - StudyGrouper.
- Address Bar:** localhost:8080/group/student/1
- Header:** Gregg, How to Succeed at College, Settings icon.
- Left Sidebar:**
 - Options:** Find Groups, Account, Home.
 - StudyGrouper**
- Main Content:**
 - Two user entries for Gregg Lee (jfkidsfjkd and Hello world).
 - A text input field labeled "Type your message here..."

Bottom Screenshot (Group Settings):

- Browser Tabs:** Final Presentation Group S..., study-grouper/Study Group..., Final Project Documentatio..., StudyGrouper, Mail - Bennett Scott - Outlo..., Group Settings - StudyGrouper.
- Address Bar:** localhost:8080/student/write-review/1
- Header:** Gregg, How to Succeed at College.
- Left Sidebar:**
 - Options:** Find Groups, Account, Home.
 - StudyGrouper**
- Main Content:** A modal dialog box with the following elements:
 - Group Name:** Write a review (input field).
 - Star Rating:** 1 Star (dropdown menu).
 - Leave Group:** Button.



Instructor (Adam) - Creating group, messaging, deleting a group



The image displays two screenshots of a web application interface, likely for a study group management system.

Top Screenshot (Create Group Page):

- Browser Tabs:** Final Presentation Group, bascott5/study-grouper, study-grouper/Design Do, Final Project Documental, StudyGrouper, Create Group - StudyGrouper (active), bascott5/study-grouper, Mail - Bennett Scott - Out.
- Address Bar:** localhost:8080/instructor/create-group
- Left Sidebar:**
 - Angus**
Constellations and Astronomy
 - Options**
 - + Create Group
 - Account
 - Home
 - StudyGrouper
- Main Content Area:** A form titled "Create Group" with the following fields:
 - Group Name:** Input field containing "Hello World" and a red "Testing" button.
 - Meeting Time:** Time range selector showing "10 : 00 AM" to "12 : 00 PM" every "Monday".
 - Create Group:** A green button to submit the form.

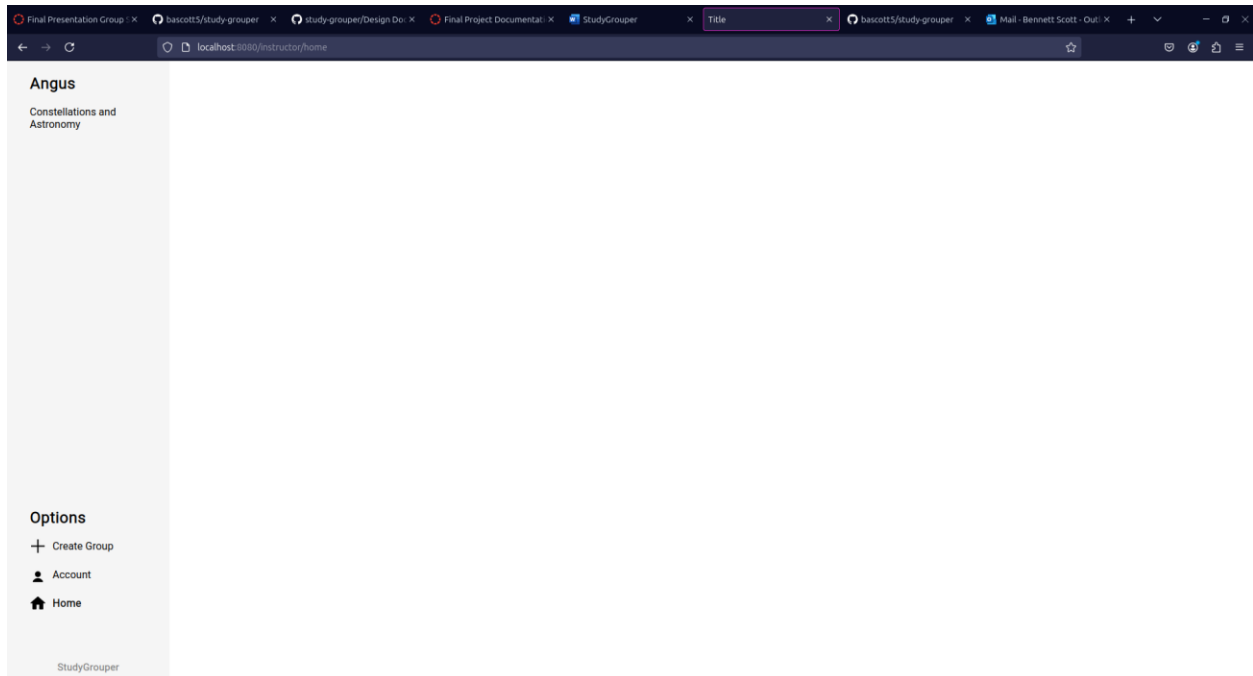
Bottom Screenshot (Group View Page):

- Browser Tabs:** Final Presentation Group, bascott5/study-grouper, study-grouper/Design Do, Final Project Documental, StudyGrouper, Group View - StudyGrouper (active), bascott5/study-grouper, Mail - Bennett Scott - Out.
- Address Bar:** localhost:8080/group/instructor/703
- Left Sidebar:**
 - Angus**
Constellations and Astronomy
 - Hello World
 - Options**
 - + Create Group
 - Account
 - Home
 - StudyGrouper
- Main Content Area:**
 - Header:** "Hello World" with a settings gear icon on the right.
 - Message Input:** A text input field at the bottom with the placeholder "Type your message here..."

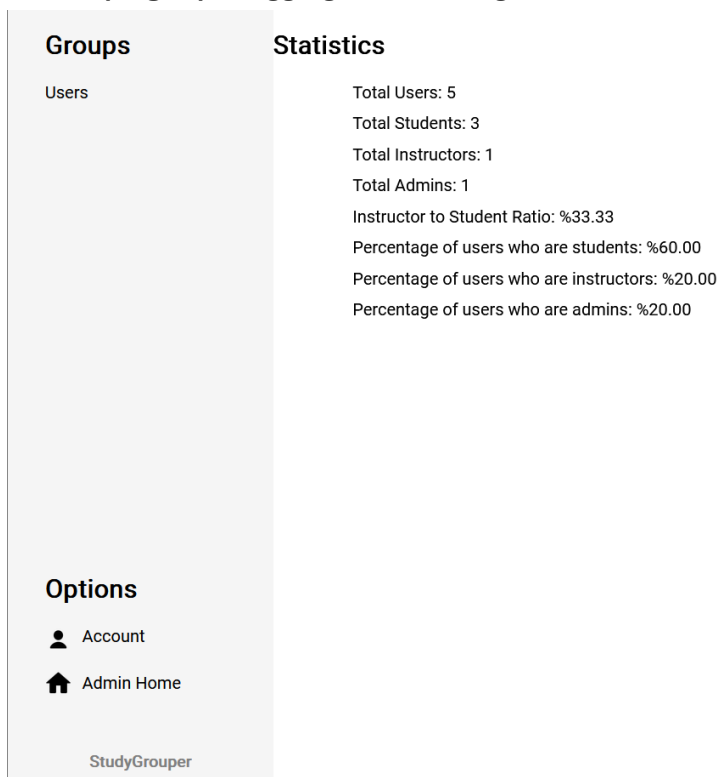
The image displays two screenshots of a web application interface, likely for a group management system called 'StudyGrouper'.

Top Screenshot: The browser address bar shows `localhost:8080/group/instructor/703`. The page title is 'Hello World'. The left sidebar contains the user name 'Angus', the group name 'Constellations and Astronomy', and the group description 'Hello World'. Below this, there is an 'Options' section with links for 'Create Group', 'Account', and 'Home'. The main content area shows a message input field with the placeholder text 'Type your message here...'. The user profile 'Angus Delaney' is visible with the group name 'Hello World'.

Bottom Screenshot: The browser address bar shows `localhost:8080/group/group-settings/703`. The page title is 'Hello World'. The left sidebar is identical to the top screenshot. The main content area displays a settings form for the group 'Hello World'. The form includes fields for 'Group ID' (703), 'Group Name' (Hello World), and 'Description' (Testing). There is a 'Save' button. Below these fields, there is a 'Topic' field (Computer Science) and a 'Meeting Time' field (10:00 AM - 12:00 PM every Monday). At the bottom of the form, there are buttons for 'Delete Group' and 'Click here for statistics'.



Admin(Logan) - Logging in, checking statistics, view/deleting user;





Groups

Statistics

Admin

ID	Username	Email	Account Type	
1	john_doe	john.doe@example.com	student	Delete
2	Jschmo	jschmo@gmail.com	student	Delete
3	DRProfess	doctorprofessor@gmail.com	instructor	Delete
4	Admin1	admin1@gmail.com	admin	Delete
5	someguy	blahblah@gmail.com	student	Delete

Options

-  Account
-  Admin Home

StudyGrouper



Groups

Statistics

Admin

ID	Username	Email	Account Type	
1	john_doe	john.doe@example.com	student	Delete
2	Jschmo	jschmo@gmail.com	student	Delete
3	DRProfess	doctorprofessor@gmail.com	instructor	Delete
4	Admin1	admin1@gmail.com	admin	Delete
5	someguy	blahblah@gmail.com	student	Delete

Options

-  Account
-  Admin Home

StudyGrouper

localhost:8080/admin/delete/5

localhost:8080



Are you sure you want to delete this user?

OK Cancel

Groups

Statistics

Options

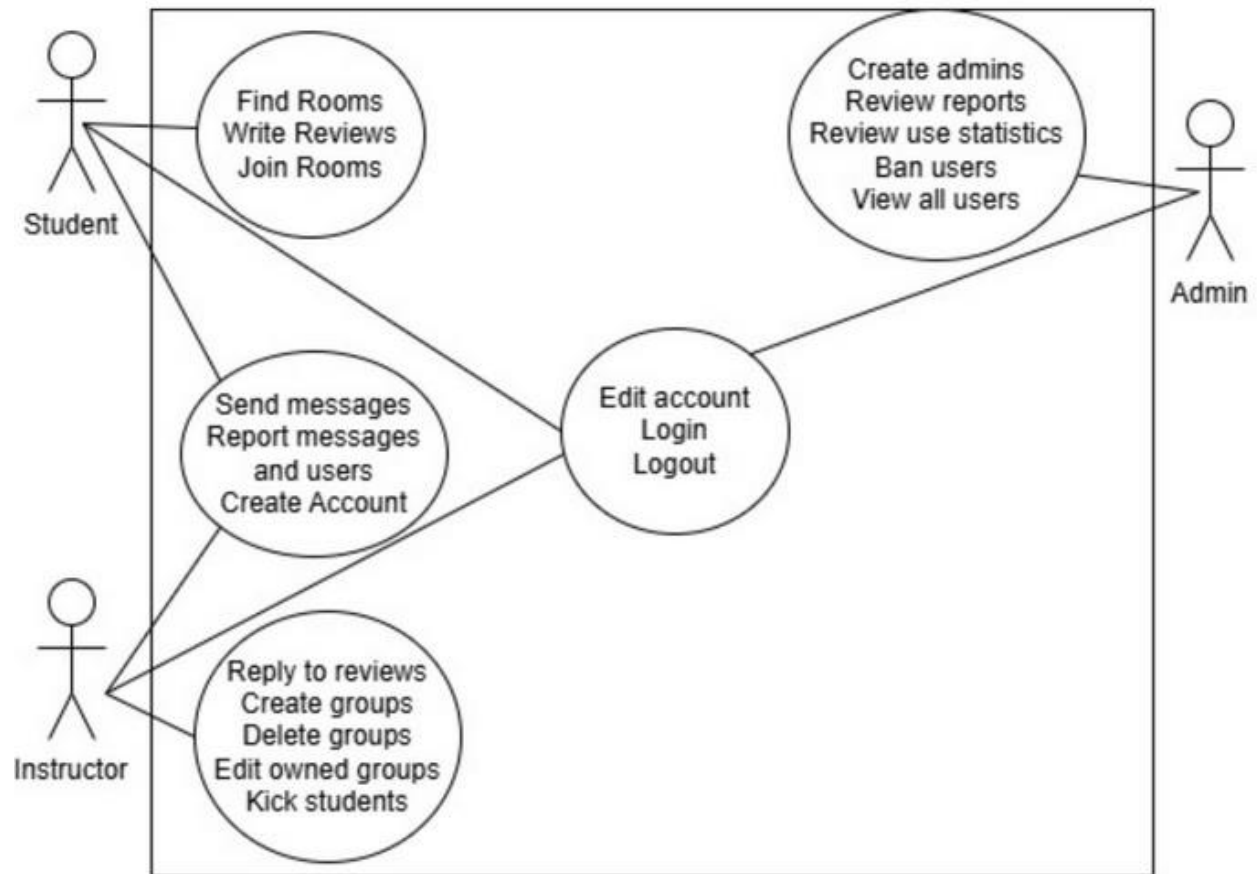
-  Account
-  Admin Home

StudyGrouper

Admin

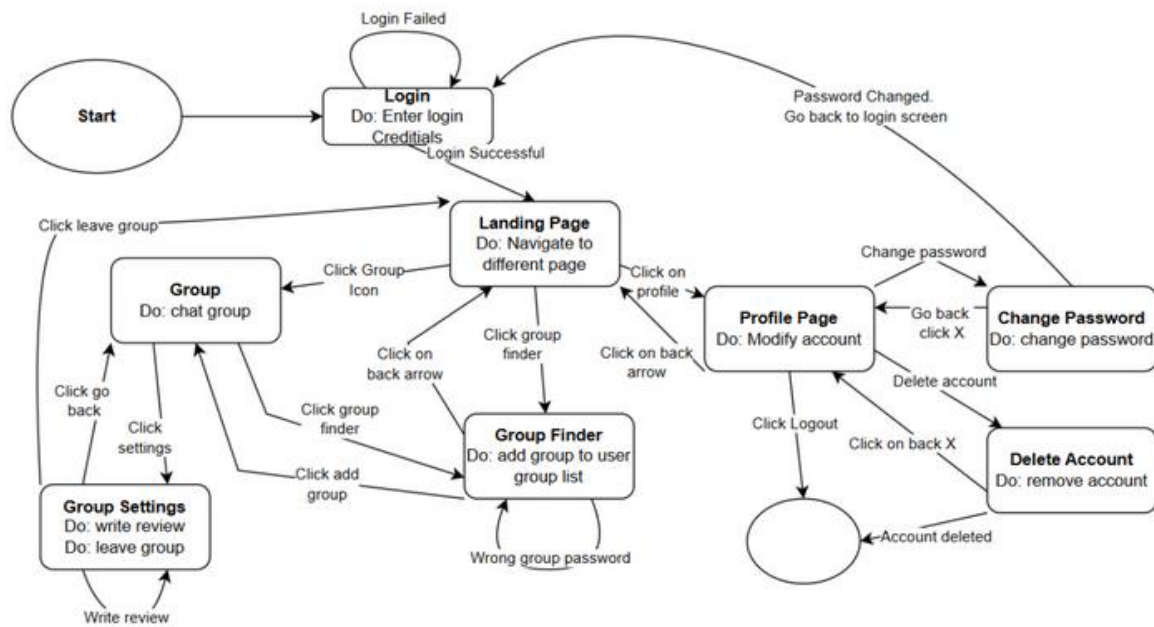
ID	Username	Email	Account Type	
1	john_doe	john.doe@example.com	student	Delete
2	Jschmo	jschmo@gmail.com	student	Delete
3	DRProfess	doctorprofessor@gmail.com	instructor	Delete
4	Admin1	admin1@gmail.com	admin	Delete

Use case Model:

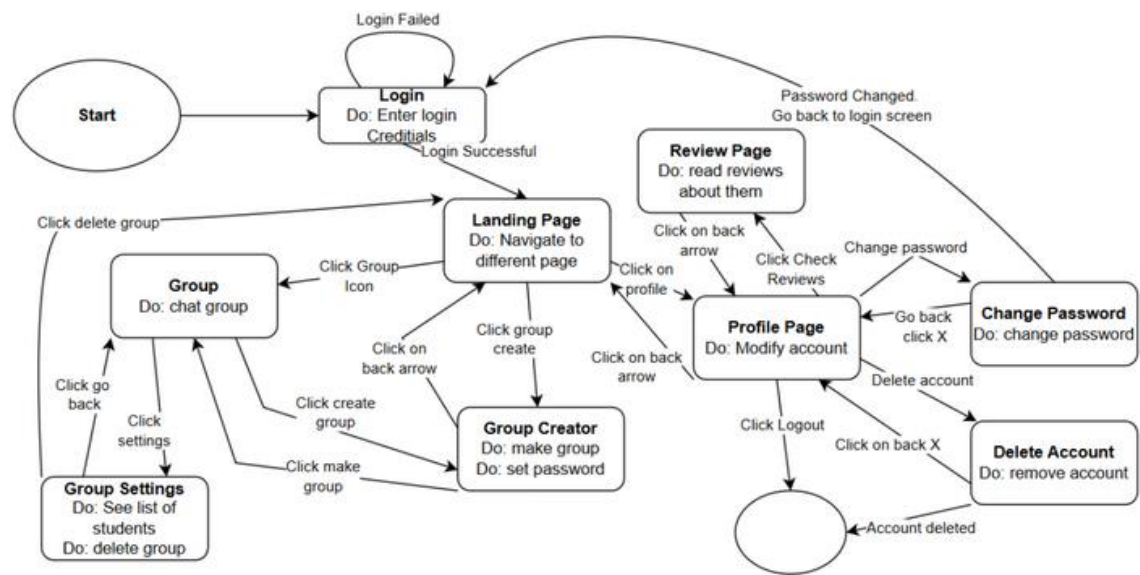


State Machine Diagrams:

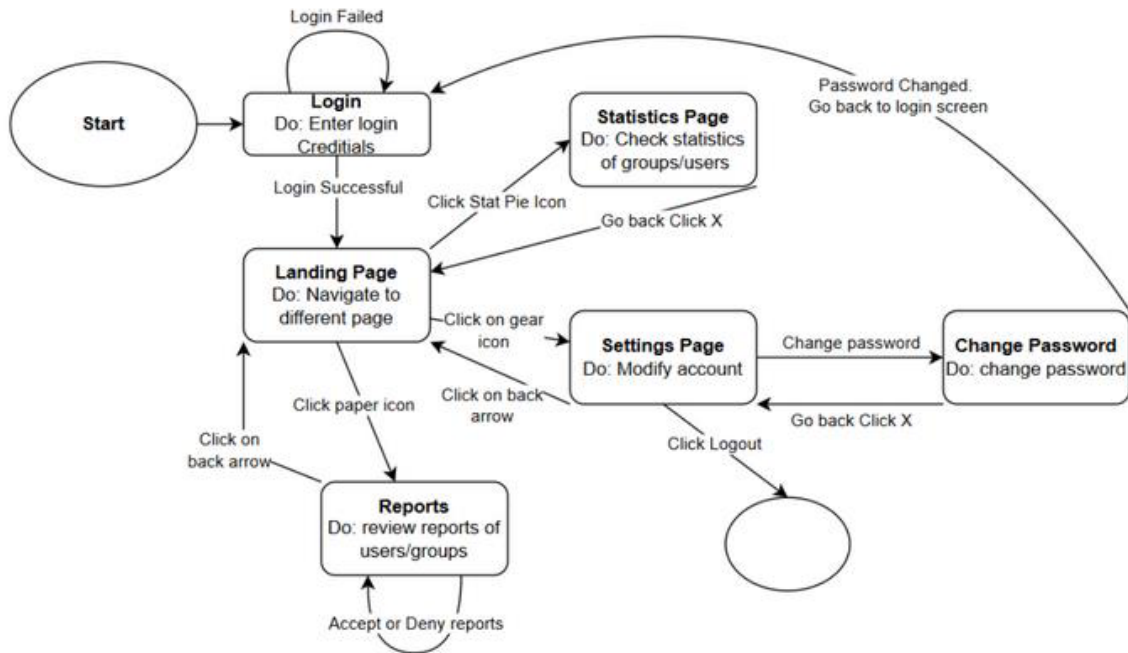
A. Student – Bennett



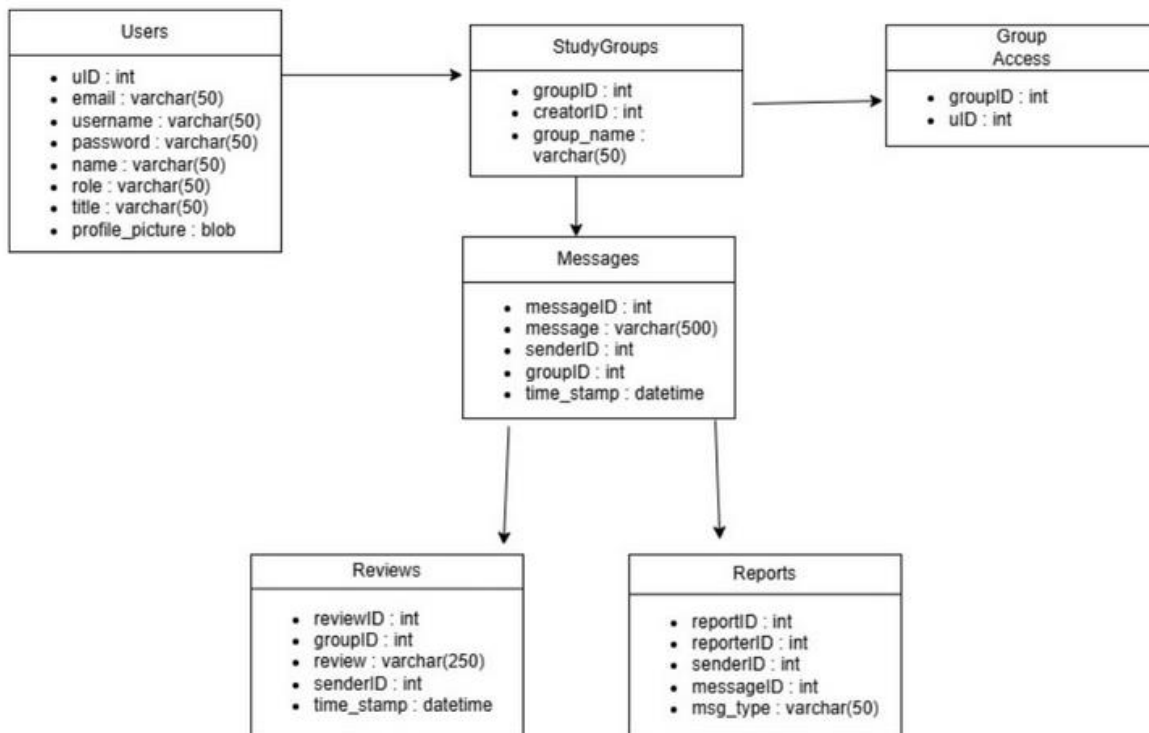
B. Instructor – Adam



C. Admin – Logan



Database Schema:



Software Architecture:

