Actors:

1. **Users**: Have the privilege to:
   - Join study groups
   - View different study resources available for every course they're currently enrolled in
   - Create study groups, which will make them manager of the group.

2. **Managers**: Have the same privileges as users in addition to:
   - Naming the study group
   - Deciding the accessibility of the group(free to join or request to join)
   - Removing members from the group
   - Deciding the number of users in a group

3. **Administrators**: Allowed to manipulate aspects of the application itself:
   - Create, modify, and delete accounts. Assist with password reset.
   - Ban users who violate the code of conduct while communicating with one another using the group chat
   - Update the available resources for each course, i.e., delete, add, or modify existing resources available for each course.
   - Change the manager of a study group if the present manager has been inactive for a prolonged period of time.

Non-Functional Requirements

- The app should respond to group creation requests within a second, ensuring a smooth and efficient user experience.
- The app should support at least 1000 concurrent users without experiencing significant performance degradation or downtime.
- The application should have minimal downtime, ensuring continuous availability for users.
- User data, including personal information and study group details, must be securely stored and transmitted.
- The user should not have to wait for longer then 0.5 seconds for any UI element to respond.
- The user interface should be intuitive and easy to navigate, facilitating seamless interaction for users of all levels.
- The application should cater to all iowa state students including undergraduate and graduate students.
- The application should be easy to set up to add new kinds of user in the future.
- The application utilizes Iowa State Single Sign On(SSO) authentication to securely verify user credentials.

Data Model

1. **Users**:
   - **User ID**: Unique identifier for each user, typically the netID.
   - **User Name**: Full name of the user, including first and last name.
   - **User Email**: Email address associated with the user, typically in the format netID@iastate.edu.
   - **Password**: Encrypted password for user authentication.
   - **Role**: Role of the user within the application (student/manager/admin).
   - **Instagram Handle ID**: Optional field for the user's Instagram handle.
   - **Snapchat Handle ID**: Optional field for the user's Snapchat handle.
   - **Discord Handle ID**: Optional field for the user's Discord handle.
   - **Courses the User Is Taking**: List of courses the user is currently enrolled in.
   - **Phone Number**: Contact number of the user.
   - **User Privacy Settings**: Settings related to the user's privacy preferences.
   - **Profile Photo**: Image representing the user's profile.
   - **Additional Fields**: Additional information such as user's major, graduation year, and any other relevant details.
2. **Courses**:
   - **Course ID**: Unique identifier for each course.
   - **Course Name**: Name or title of the course.
   - **Section**: Section number or identifier for the course.
   - **Instructor**: Name of the instructor teaching the course.
3. **Study Groups**:
   - **Group ID**: Unique identifier for each study group.
   - **Group Name**: Name or title of the study group.
   - **Group Manager**: User ID of the manager or creator of the study group.
   - **Group Description**: Description or summary of the study group.
   - **Number of Members in the Group**: Count of members currently in the study group.
   - **Last Active**: Timestamp indicating the last activity or interaction within the study group.
   - **Maximum Capacity**: Maximum number of members allowed in the study group.
   - **Usual Meeting Time and Location**: Details about the typical meeting schedule and location for the study group.
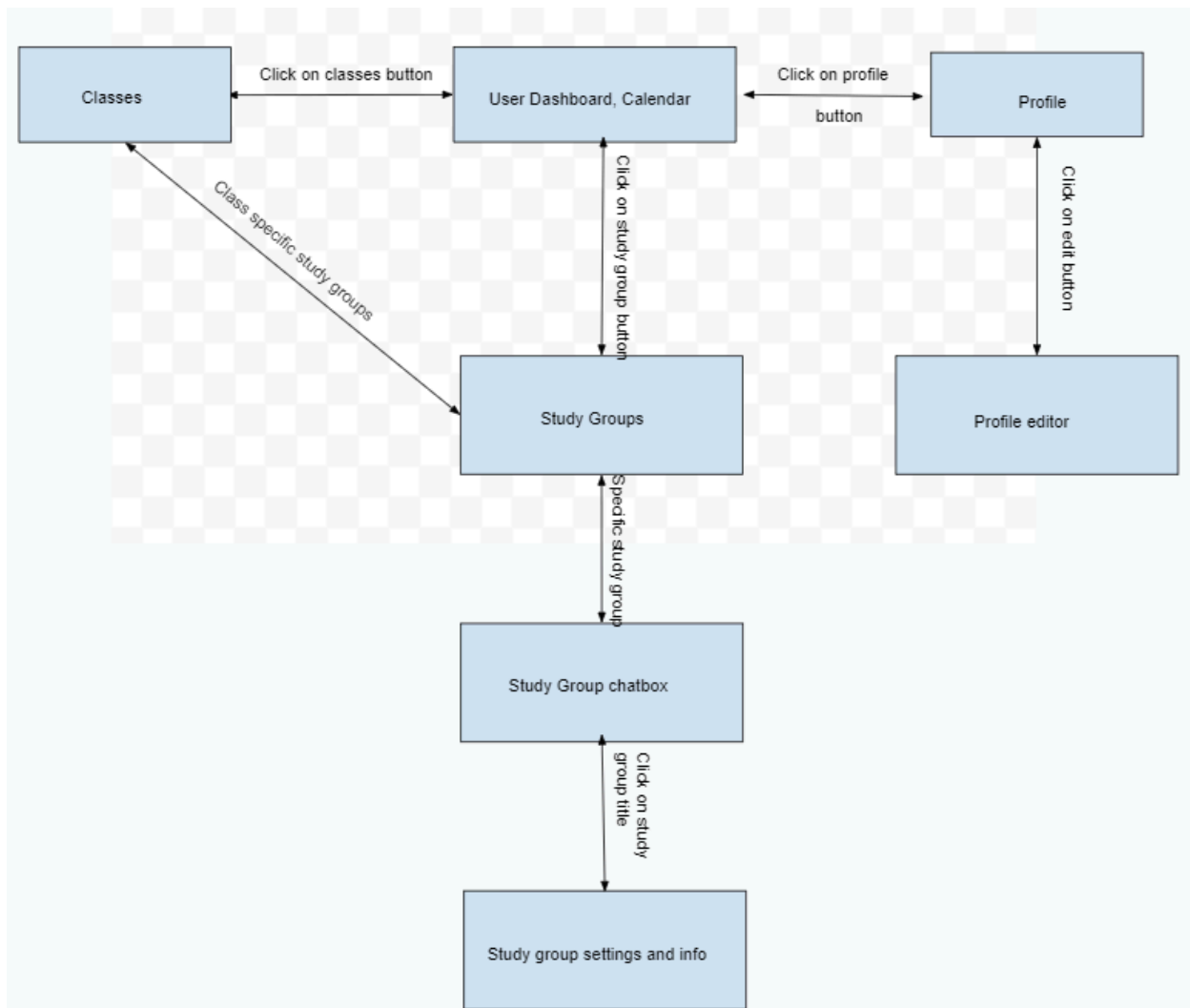4. **Group Members**:
   - **Member ID**: Unique identifier for each group member.
   - **Member Role**: Role or position of the member within the group.
   - **Join Date**: Date when the member joined the group.
   - **Group ID**: Identifier linking the member to the study group.

- ○ **User ID**: Identifier linking the member to the user.
5. **Chat Feature**:
   - ○ **Message ID**: Unique identifier for each message.
   - ○ **Group ID:** Identifier for the group chatbox
   - ○ **Sender ID**: User ID of the sender.
   - ○ **Receiver ID**: User ID of the receiver.
   - ○ **Message Text**: Content of the message.
   - ○ **Timestamp**: Date and time when the message was sent.

Screen Flow Diagram

| Classes | ← Click on classes button → | User Dashboard, Calendar | ← Click on profile button → | Profile |

Class specific study groups

Click on study group button

Click on edit button

Study Groups

Profile editor

Specific study group

Study Group chatbox

Click on study group title

Study group settings and info

CyStudy

Calendar

SUN	MON	TUE	WED	THU	FRI	SAT
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3

Classes   **Study Groups**   **Profile**

Home page-
CyStudy

This is the first page the user sees after logging in.

The calendar will mark days that your study groups are meeting.

The classes button will take you to a list of classes, where you can then find what study groups are for each class.

The study groups button will take you to the groups that you have joined, which will then lead to a chat interface to communicate with group members.
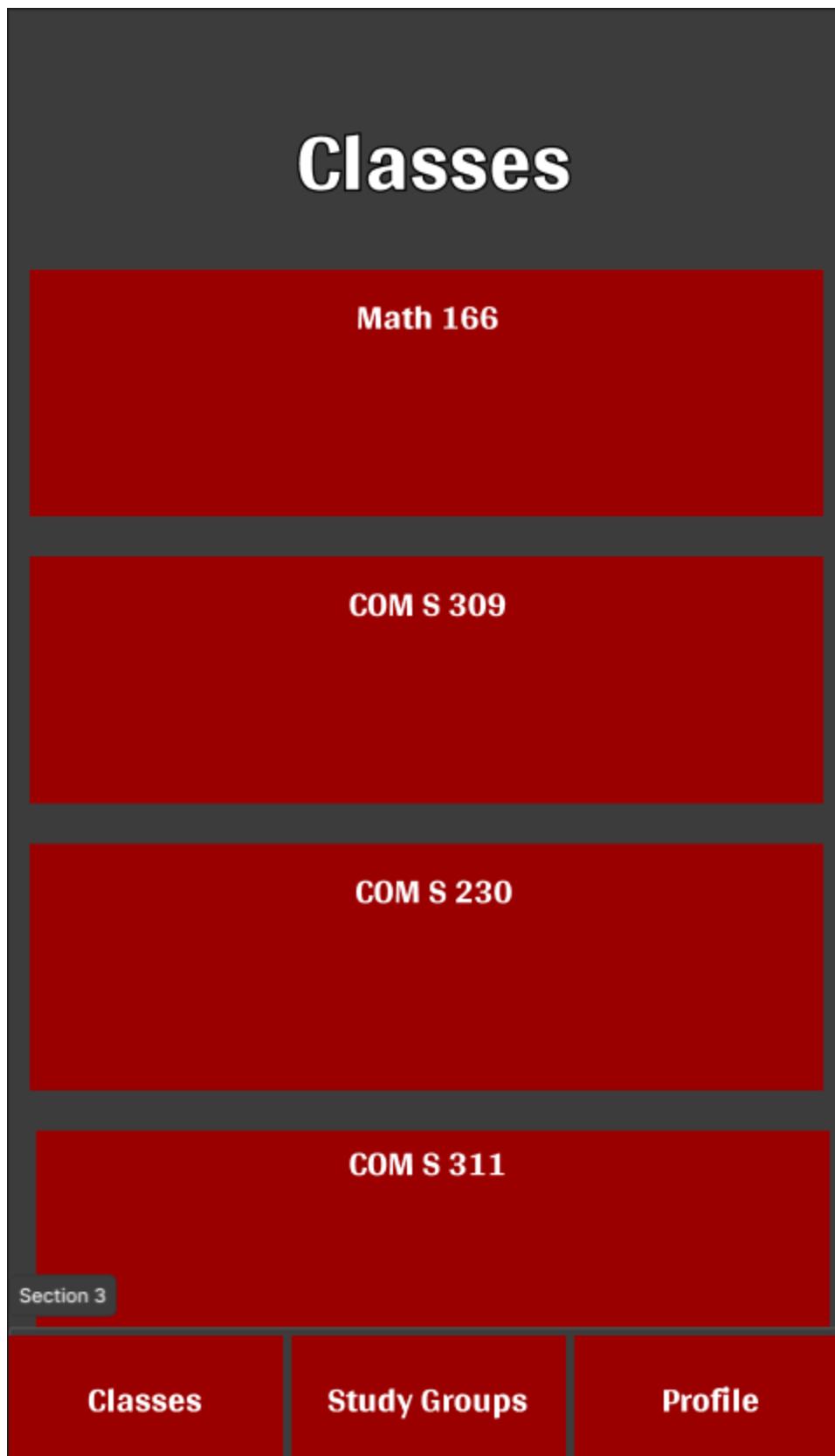
The profile button will take you to your user profile, where you can customize it to your liking.

Classes

Math 166

COM S 309

COM S 230

COM S 311

Section 3

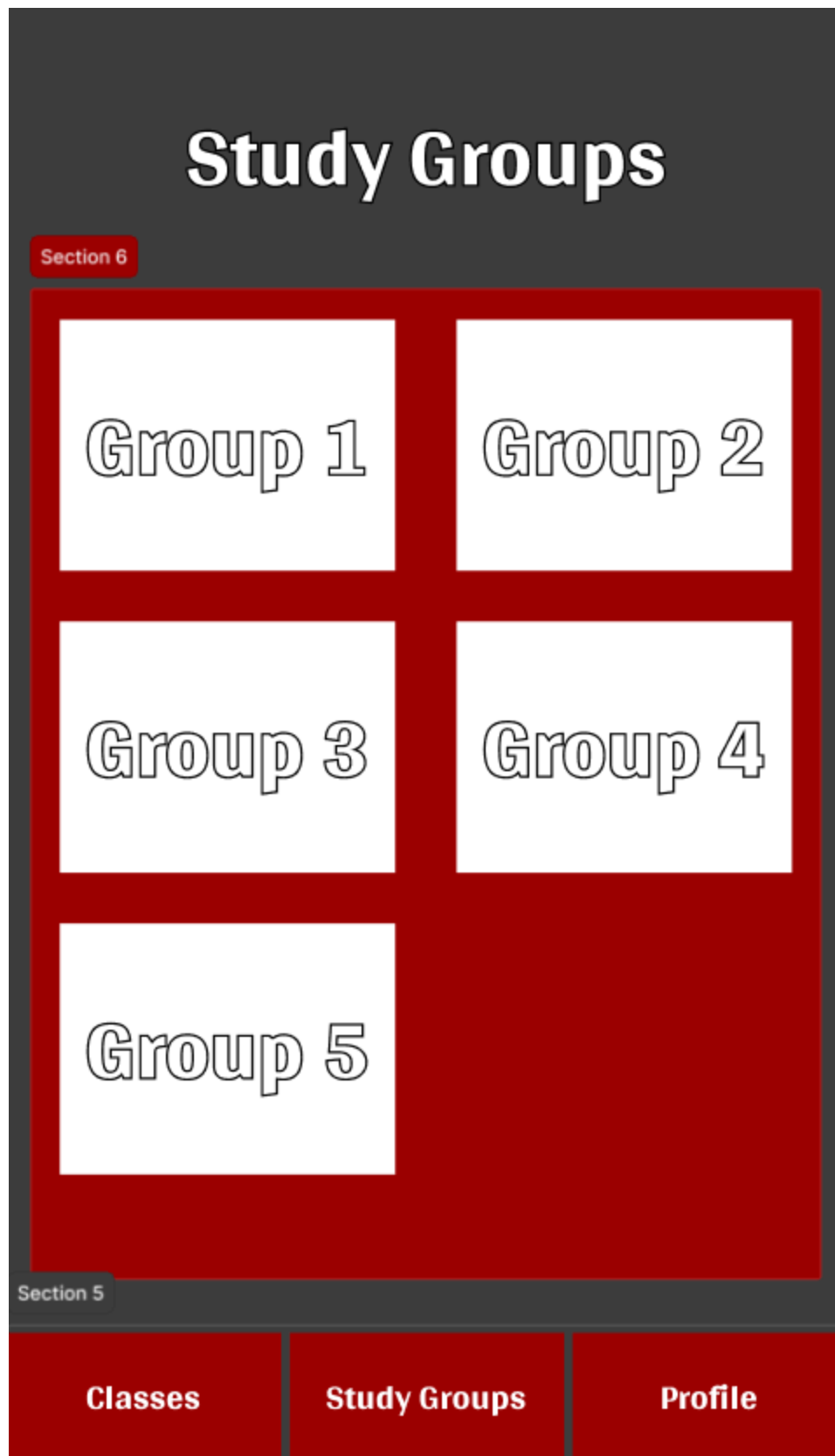**Classes**　　**Study Groups**　　**Profile**

Classes- CyStudy

This screen shows a list of classes that will automatically be generated when the user logs in with their student credentials.

Clicking on each class will take you to a list of study groups available for each class.

You will be able to view a class's study groups even after joining one for the class, in case the user wants to switch groups.

Study Groups

Section 6

Group 1

Group 2

Group 3

Group 4

Group 5

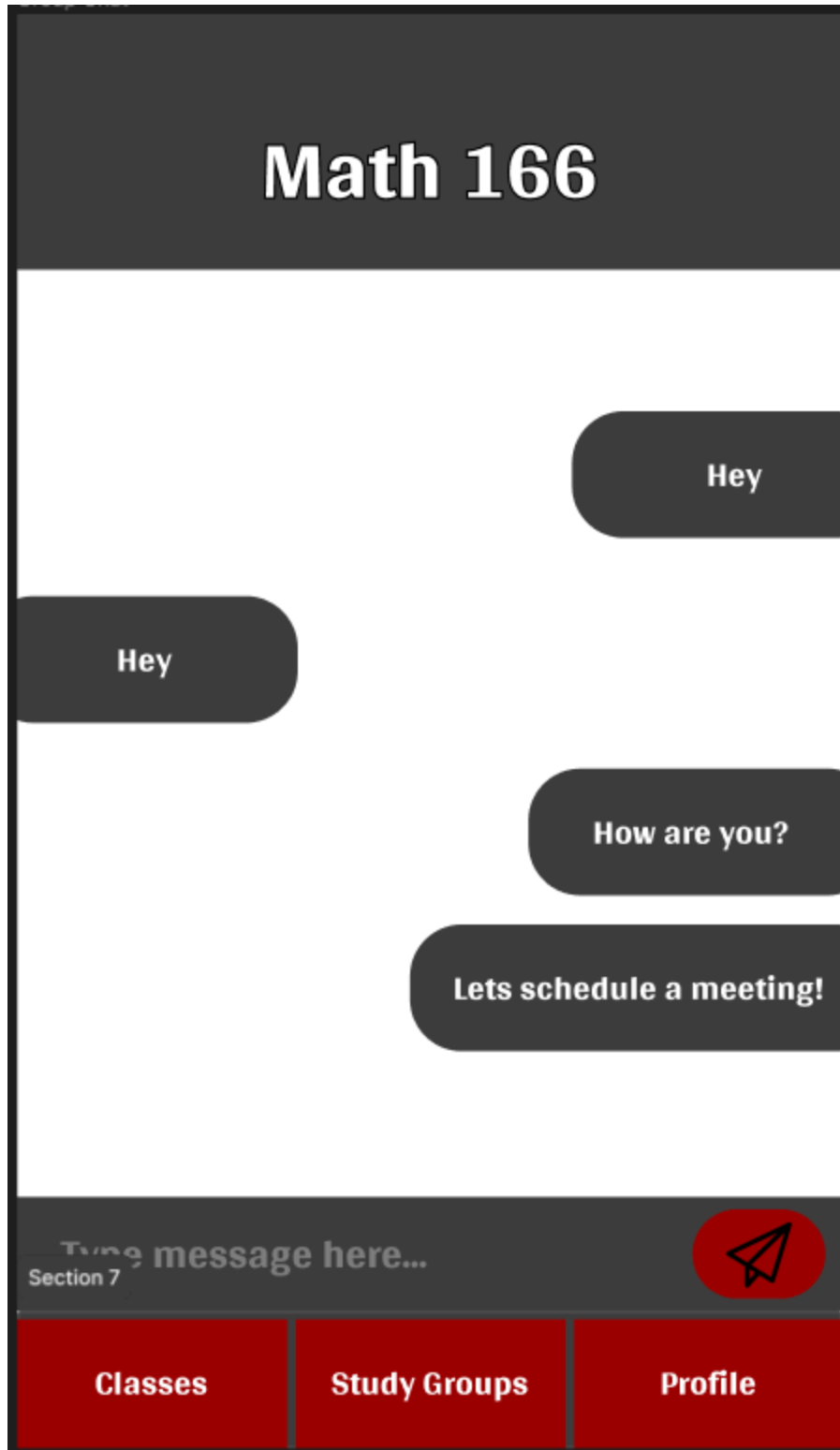Section 5

Classes   Study Groups   Profile

Study Groups-
CyStudy

This screen shows all the current study groups you are in.

If you are in more than 6, a scroll bar will appear on the side of the screen to allow you to scroll through all your current study groups.

They will automatically appear and disappear when you join/leave them respectively.

Clicking on a group button will take you to a chat page where you will be able to send messages to your study group.
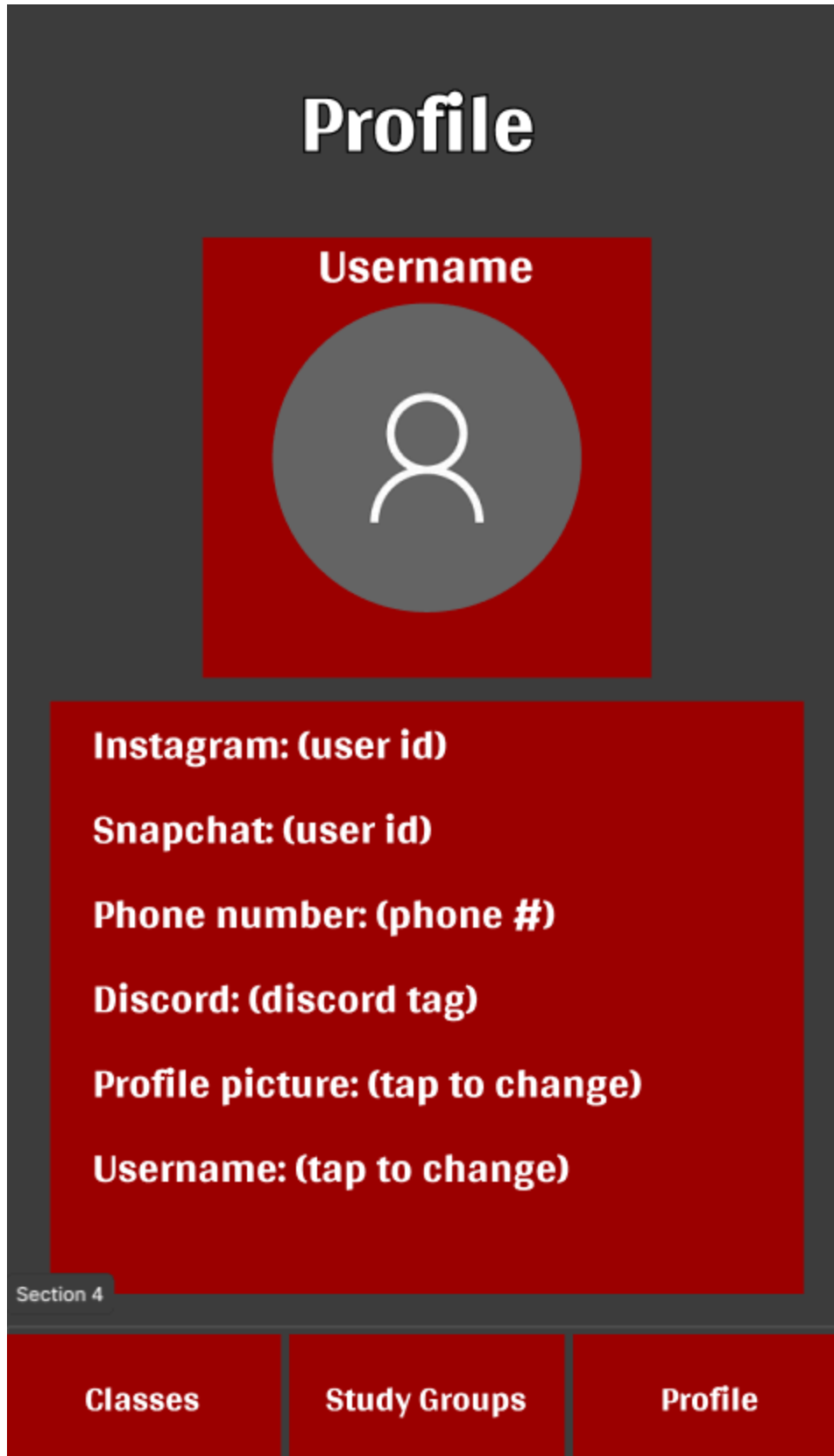
Study Group Chat- CyStudy

The user can access this screen by clicking on the respective study group from the Study Groups screen.

On this screen, the user can send direct messages to the rest of their study group in realtime.

To type a message, the user can click the "Type message here…" box, and start typing.

Once finished, they simply press the red button in the bottom left to directly message the rest of their group.

Profile

Username

Instagram: (user id)

Snapchat: (user id)

Phone number: (phone #)

Discord: (discord tag)

Profile picture: (tap to change)

Username: (tap to change)

Section 4

| Classes | Study Groups | Profile |

Profile- CyStudy

This profile screen is to customize the user's contact information as well as public profile appearance.

When clicking on a user's profile picture in a study session chat, all information that was input on this profile page will be visible.

The user can update their contact information by clicking on the name of what they want to change.

They will also be able to select a photo from their camera roll to be uploaded as their public profile picture.