

SHAPED WORK

SEG 4105 - Software Project Management

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Table of Contents

Overview	3
Narrowing down the problem	3
What makes this manageable.....	4
Proposed solution	4
Breadboarding sketch	4
Fat markers sketch	5
Traps that we should avoid.....	6
What we are not doing	7

Overview

Our team's capstone project, "Academic Team Management," serves as a comprehensive application aimed at simplifying and automating the management of large, multi-person groups involved in capstone projects. This application caters to the distinct roles of both professors overseeing capstone projects and students enrolled in these courses.

From a professor's perspective, users land on the sign-in, leading to the welcoming professors' landing page. A navigation bar provides access to all functionalities related to professors. Professors can view, create, modify, or delete project details, group information, and student records. This interface empowers professors to efficiently oversee various aspects of capstone projects.

On the other hand, students experience a user-centric approach to project management upon signing in. Their personalized welcome page grants them access to essential features via an intuitive navbar. Here, students can readily explore available projects, submit requests for new project additions, join existing groups, and access their individual group pages.

Within the confines of the "MyGroup" page, students find a convenient hub for accessing information about their assigned groups. This includes details like associated project names (if applicable) and a neatly organized table presenting information about their fellow team members, including Student IDs and email addresses. This design fosters collaboration, ensuring that students remain well-informed about their team composition and project-related information, enhancing the overall efficiency of academic team management.

Narrowing down the problem

Many students enrolled in the application face challenges when it comes to effective and streamlined communication with their teammates within the app. While the "MyGroup" page provides a list of team members, there is currently no efficient way for students to initiate group-wide communication or share updates or information with their team.

As a result, students often resort to using external email or messaging platforms to coordinate with their academic peers, which can lead to fragmented communication, missed messages, and a lack of centralized academic team management within the app.

The absence of an integrated communication feature within the app not only hinders collaboration but also disrupts the user experience, making it difficult for students to stay organized and informed within their academic teams. This communication gap impacts productivity, engagement, and the overall effectiveness of academic teams.

What makes this manageable

The appetite for the "Email Group" feature is to keep it lean and nimble, enabling implementation within a six-week development cycle. We're intentionally limiting the scope to ensure a focused and effective solution that facilitates seamless communication among students and their academic team members.

By adhering to this six-week timeframe, we commit to delivering a solution that emphasizes simplicity and core functionality. While more elaborate and intricate communication tools might be enticing, the primary goal is to provide an essential, user-friendly feature that streamlines communication within academic teams app without the burden of complexity.

Proposed solution

To address this, we propose the integration of a streamlined email feature accessible through a Compose "Email" button on the "MyGroup" page. When a student clicks this button, a pop-up window emerges.

Within this pop-up, students are presented with a list of all their group members in the "Recipient" section, simplifying the process of selecting email recipients. A text box is provided for composing the email message, allowing students to craft their communication seamlessly.

Upon finishing the email composition, students have the choice to hit "Send" to forward the email to their teammates or "Cancel" to discard the email draft. This solution encourages efficient communication without the need for external email platforms or complexities, aligning with our appetite for a swift and user-friendly implementation.

Breadboarding sketch

The figure 1 bellow shows a visual representation of our initial breadboarding phase, where we ideate and prototype the “Email Group” feature for efficient academic team communication:

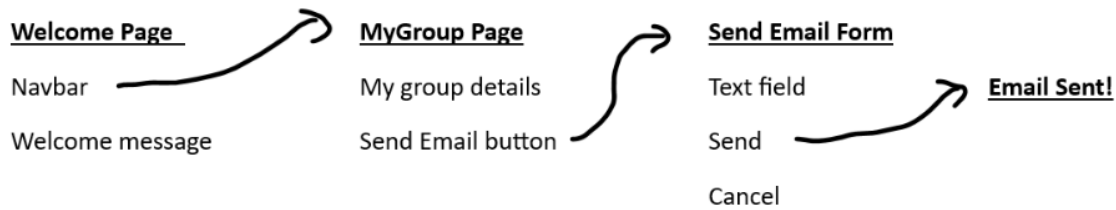


Figure 1: Breadboarding of the “Email” feature

Fat markers sketch

Figure 2 and Figure 3 are two fat marker sketches providing an abstract yet informative view of the proposed “Email Group” feature. They outline the key components, such as the “Email” button prominently placed on the “MyGroup” page. The pop-up window, as depicted, showcases the “Recipient” section with a list of group members and a spacious text box for composing messages. The simplicity of the design emphasizes our commitment to user-friendliness and efficiency in academic team communication.

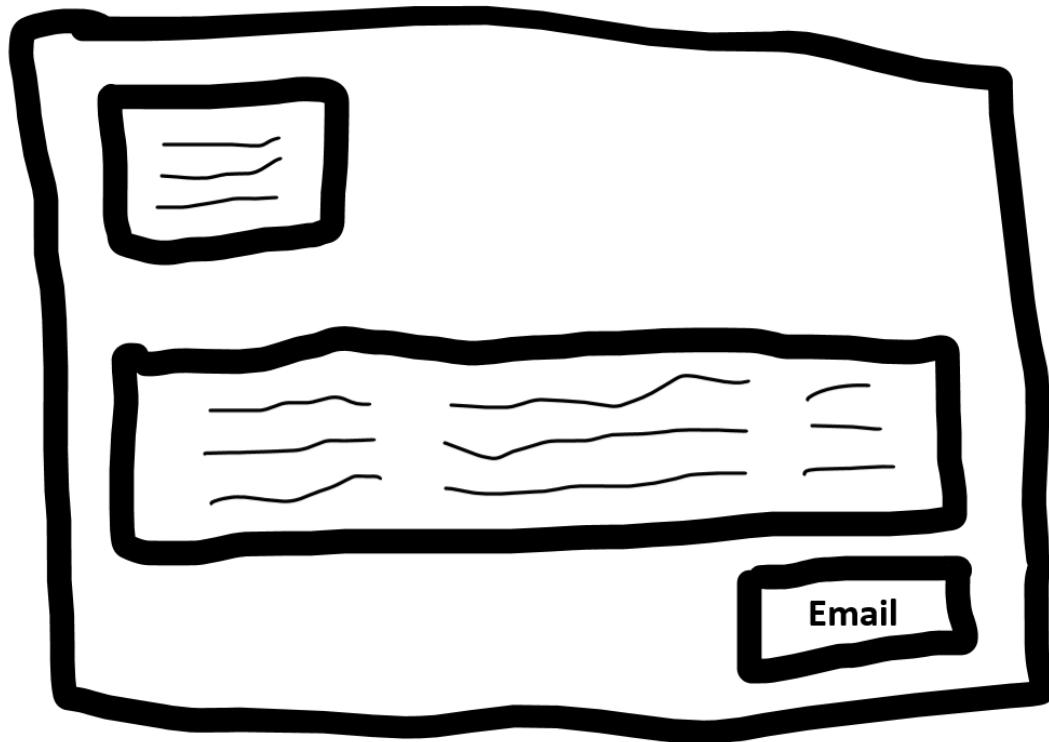


Figure 2: Fat marker sketch for the MyGroup page

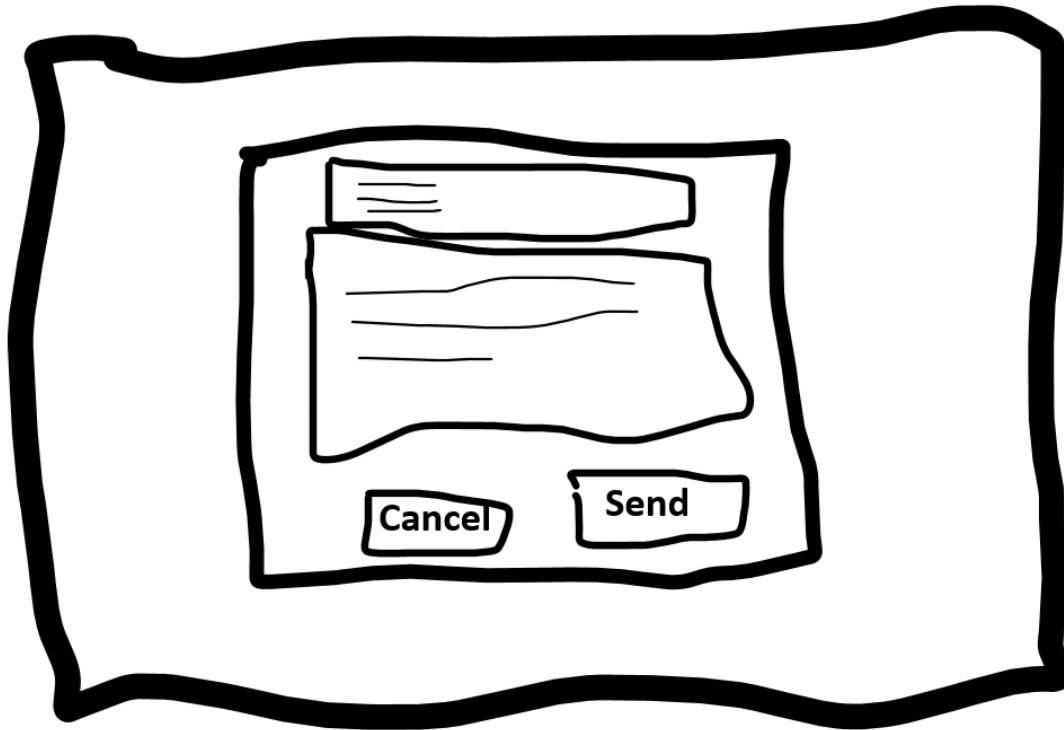


Figure 3: Fat marker sketch for the Email form

Traps that we should avoid

It's essential to consider potential rabbit holes, risks, and boundaries during the breadboarding phase to avoid scope creep and ensure a successful implementation. These are some of the considerations that we should avoid during the development of the feature:

1. **Scope:** Adding additional features such as file attachments, rich text formatting, or message scheduling.
2. **User Experience:** Spending too much time on the visual design and layout of the email form.
3. **Privacy and Permissions:** Ensuring that the app handles user data and permissions correctly, especially when it comes to accessing email addresses of teammates.
4. **Email Delivery:** Emails can sometimes be marked as spam.
5. **Email Validation:** Spending too much time validating email addresses.
6. **Scalability:** If our app scales to a large number of users and teams, sending mass emails could strain our system or lead to delays.
7. **Testing and Feedback:** Extensive testing and refinement during breadboarding.

What we are not doing

In crafting this concept, we've deliberately omitted certain functionalities to maintain a streamlined and focused user experience. This helps us maintain a clear, straightforward, and efficient communication tool that aligns with our appetite for a rapid six-week development cycle while addressing the immediate needs of our users. These exclusions enable us to prioritize essential functionality and deliver a valuable solution in a timely manner.

- ❖ **Document Attachments:** The current concept does not incorporate the ability to attach documents or files to the email. This decision maintains simplicity and ensures a rapid development cycle without introducing added complexity.
- ❖ **Email Domain Validation:** We are not implementing email domain validation as part of this concept. While it can be a valuable feature for security, it is not within the scope of our two-week development cycle.
- ❖ **Email History Storage:** The concept does not include a mechanism for saving email history. As a result, there won't be an email history log for users to reference. This exclusion minimizes data storage and management requirements.
- ❖ **Additional Recipients:** Our initial implementation focuses on sending emails to the entire academic team. We are not providing the ability to add more recipients to the email within this concept. This limitation simplifies the interface and enhances clarity.
- ❖ **Sender's Email Modification:** Users will not have the option to change the sender's email address within this concept. The sender's identity will remain consistent to avoid potential misuse or confusion.