

# **Social Media Aggregator Project – Final**

## **Abstract:**

This submission presents the final high-fidelity interface prototype for our mobile social media aggregator app and discusses the justification of design decisions based on our initial research, design principles, analytical and empirical evaluations for the prototype. This was done in order to address usability problems with modern social media platforms and improve the experience for users of multiple social media platforms.

## **Introduction to Problem Summary:**

It is clear that social media has become an indispensable part of everyday life for people all over the world. Many users find it time-consuming to manage multiple social media accounts. One of the many challenges people are facing today has been processing the excessive amount of social media posts over numerous platforms. We wanted to lessen the overall overload of information that users would be viewing on a daily basis by allowing them to organize their various social media platforms into a single source. We researched and prototyped interface alternatives to put as many social media platforms as we could under one roof so that users can manage their total time spent on social media. This also allows for the ability to take in new platforms as the landscape evolves.

Our research has found that users want to aggregate social media and stay informed to keep up with what's important to them without spending much time using individual social media apps. Based on the research we came up with for this application, we have intended to aggregate a user's social media into one place where they can link all their accounts and have all their posts show up under one primary feed. This application also supports users' needs to post to multiple social media platforms and maintain the ability to search for topics or users across the social media platforms. Further, our research indicated that people are more likely to use mobile phones for browsing through social media. So, the application will be mobile-based in order to maximize the efficiency and convenience for the user.

## **Target Audience:**

This application targets a wide audience in terms of demographics. Our user research suggests that the majority of our target users will be people with multiple social media accounts. Accordingly, we have designed our interface to cater to their needs but we also made it simple enough so that people who don't use social media often feel comfortable using it. There are also a large number of users whose careers and businesses rely upon the constant usage of social media and news avenues in order to remain relevant and successful (influencers, brand managers, content strategist, etc.). Likewise, we have tried to keep options and choices as simple as possible, and textual copy simply worded so that our users feel that they can understand what is asked of them and not feel overwhelmed or confused.

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## Design Justifications:

Below are the design justifications for the primary screens of our interface. These are primarily based on prior research, but also involve evaluations and usability goals.

### A. Welcome/Login/Sign-up Screen



Our initial user research suggested that a friendly *Welcome Page* with simple text gives a positive user experience. Accordingly, we have designed the user interaction with our application with the usability goals of efficiency, user satisfaction, and effectiveness in mind. The *Welcome Page* provides clear direction to the user on whether they are a returning user or if they need to create an account and simple friendly language is used on the welcome screen. Our empirical evaluation also suggested that the welcome screen should have an app name to give context to the user. After our analytical and empirical evaluations and based on the acquired insights, we decided to change "Welcome!" to "[App Name]" as our app name was nowhere to be found in the page previously. Also, with our initial design, it took two button presses to get to the *Sign Up* or *Login* pages. As per analytical evaluation, we made this process only require one button press – either "Login!" or "Sign Up" – which in turn made the *Welcome Page* look more simple and aesthetically pleasing.

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### Create your account

**Don't have an account?**  
It only takes a few minutes to register for a free account.  
Please fill in a couple details below and you're all set!

Email Address

Full Name

Choose a password

Please provide a password of at least 8 characters.

☐ \*I have read and agree to #####'s [Privacy Policy](#) and [Terms of Service](#)

Continue

Once a user clicks the “Sign Up” button on the *Welcome Page*, the user is eased into the registration process for the application. As per our evaluations, we came to the conclusion that we want as few inputs as possible so that users don't feel that they're giving away so many personal details, and this lack of information gathering also ensures that they answer honestly. Hence, we have chosen the user's email address to be our application username for the user. We have also designed the top navigation bar with the “Back” button for ease of navigation to the user. It also prevents error correction if a user travels to this page by mistake. Terms of Service and the Privacy Policy are also included in the *Sign Up Page* so new users can access the necessary information about the application if they desire. These links will help them understand more about how we are ensuring their information is secure.

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←

### Welcome Back

Email Address

Password

☐ Remember me?

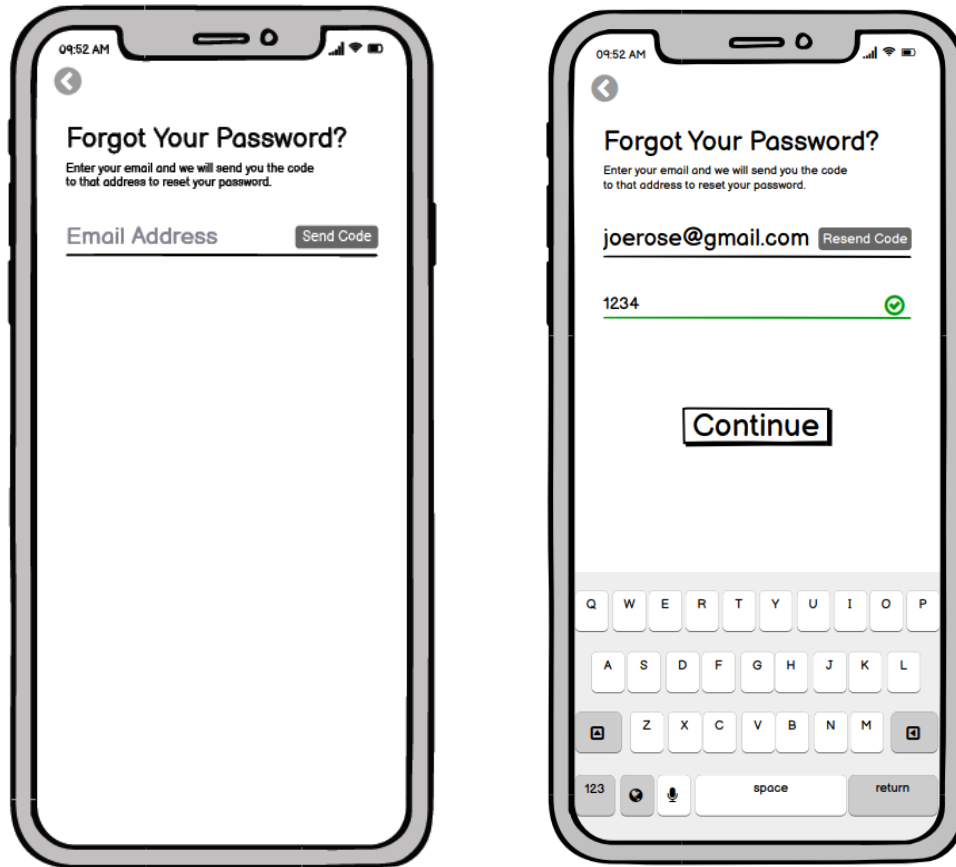
Login

or

[Forgot your login info? Tap here.](#)

The alternative to the *Sign Up Page*, the *Login Page*, contains fields for user input: for both an email address and password. Below these fields is a large “Login” button which will take the user to their main feed. On the login screen, there is also a “Forgot Password” button which will help the user obtain their login information via the email address registered with the application. We have also added a “Remember me?” checkbox that ensures ease of login for regular users. This should have users return to our app more frequently as the login process would be eliminated as a barrier. We have also designed the top navigation bar with the “Back” button for ease of navigation to the user. It also serves as error correction if a user gets to this page by mistake.

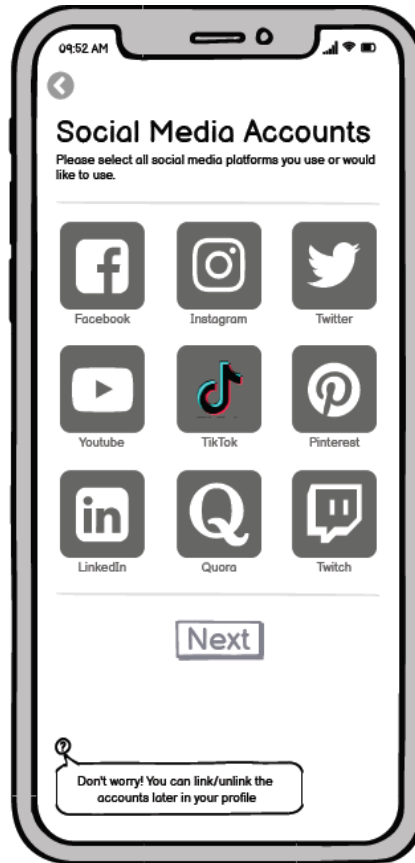
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If the user clicked on the “Forgot Password?” button from login, they are brought to this screen which helps the user reset their password by sending a confirmation code to their email address, and if input, will send instructions on how to reset their password. However, based on our evaluation, we found out that it was actually impossible to reset a password in our initial setup. This was because this screen required both the user's email address and a confirmation code simultaneously in order to continue. Essentially, our app required a confirmation code in order to send a confirmation code. We decided to remove asking for a confirmation code alongside an email address and instead have the confirmation code input appear *after* typing in an email address and clicking the “send” button. This made the flow much more logical as the user would be given one task at a time.

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## B. Social Media Accounts linking/Login Screen



The landing page following the *Sign Up Page* is the screen for linking Social Media Accounts. This is where users can select social media accounts of their choice to either log in to or sign up for. The main reasoning behind this design is that user research indicates that users want to aggregate social media and to keep up with what's important to them without spending much time using individual social media apps. But, sometimes a user might want an account but may not have one yet, so we allow users to sign up for a platform right from here. Throughout the design process and based on our evaluations we decided to enlarge the buttons, remove a scroll bar, and add gray rounded squares behind each logo button to show that it's actually a button. This should have the user more easily pick up what they are required to do. Also, the navigation elements used are consistent throughout the welcome experience and the user is able to go back at any point to correct errors. Something unique we decided to add is a "help" button on this screen – it displays context-sensitive explanations, examples, etc. in a popup panel. On this page, it is meant to ease any user concerns: "You can link/unlink accounts later in your profile."

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The next screen works in conjunction with the *Social Media Platform Selection Page* and allows users to select which platforms they'd like to login to and which ones they'd like to create an account for. After which, the app redirects them to individual pages managed by the social media platforms themselves to facilitate the linking or signup process. Through the evaluation process, we found that there was no quick way to remove a platform from this screen without the need to go back, so we decided to add a remove button to each social media platform option. We also noticed how our application wouldn't actually facilitate the actual login/signup process for a specific application, so the text boxes for usernames and passwords were redundant. In affect, we removed the ability to add login info from this screen.

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## C. Single Column Main Feed (Home Page)



**Home Page Content:** This is the home page after the login screen as well as after completing the whole signup process. This page has an overall simplistic design. The justification behind the design above is that current feeds on other applications can already feel overwhelming for some to look at and our application encases even more information than current feeds with the bundling of social media platforms. For this reason, we decided on a very simplistic feed to help prevent information overload. The top bar of the main feed is where stories are located and only appears for those that have linked an Instagram or Facebook account. This follows the traditional placement for stories to ease new users into our platform.

**Chronological Content:** A problem that we encountered with combining social media platforms is the possibility of having a spam of content from one single platform. To avoid this, once a counter is reached that tracks how many back-to-back posts are from one specific social media, the next chronological post from a different social media would get displayed. As per our empirical evaluation, we found that users like variety in their feed content, but would still like posts to be generally chronological.

**Posts:** We decided to make our own individual post format that is familiar and common throughout our platform as our alternative – combining other platforms' post formats and placing them side-by-side – would cause a lot of confusion and lack consistency. We have also given



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the option for users to like, share, or save the post appearing on their feed. Among other issues, we found that it is impractical to view some non-expanded videos on a phone. Expanding videos when clicking on them is an obvious addition and one we included. We are also providing users with information from which platform a post is appearing on their feed via a small icon(s) of the originating platform(s) logo.

**Navigation Bars:** At the bottom of the screen, there is a large button allowing users to post. This lower bar also has the option to visit the user's profile and go to the user's direct messages. And, on the top bar, there's a button to see recent notifications on the left and there's a search function located on the right (following typical placement of searching).

Our evaluations have shown that some of our potential users have a low threshold for information overload. Information overload is a possibility for these users if their feed on our app resembles Pinterest's feed (which has two columns of posts next to each other). We had to make it an option to have only a single column for posts if we wanted to avoid potentially scaring off users with a low threshold for information overload. Although our app supports both a single column feed and a double column feed, the initial feed everyone will see after sign up is the single column feed. When the user has new posts to be seen, the screen looks like below and we thought this would be necessary so users can be reminded as to what content they had already seen and what was new.



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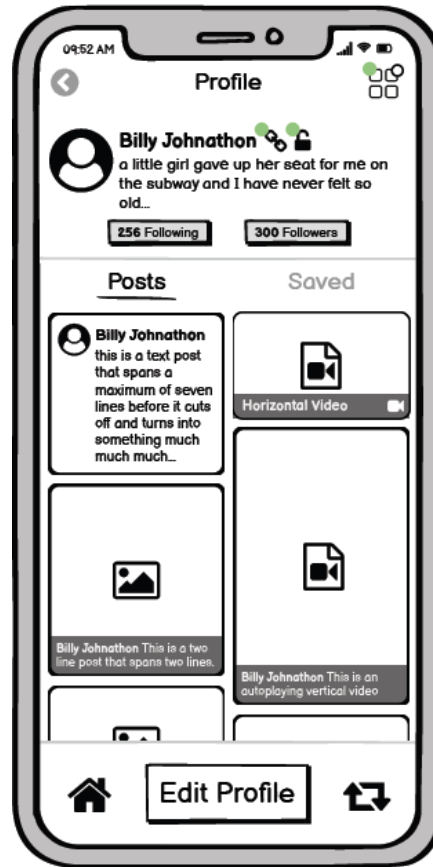
## D. Grid-formatted Main Feed Screen



This is an alternative landing screen after the login/sign up screen that can be toggled via a button in the user's profile. This would be the user's primary feed on the app that they can scroll through to see recent posts. We added the user's stories at the top of the screen, but it is limited to the platforms which support the feature. For the home screen, we decided on a set of buttons that we found were most used by users in their day-to-day use of social media. Users tend to make posts, view their profile, check their DMs, see their notifications, and search most frequently. So, we made sure that these buttons were easily accessible. This concept came about after learning how users' really enjoyed the format of Pinterest and the suggested feed on Instagram. Some users tend to enjoy having lots of content at their fingertips and being able to scroll past uninteresting content quickly. This allows users to see entire posts without them filling up their entire feed. This is also chronological and without ads, as the opposite was a popular complaint among many of our interviewees. Besides the view of the feed itself, it shares its feature set (top bar and bottom bar) with **C. Single Column Main Feed (Home Page)**.

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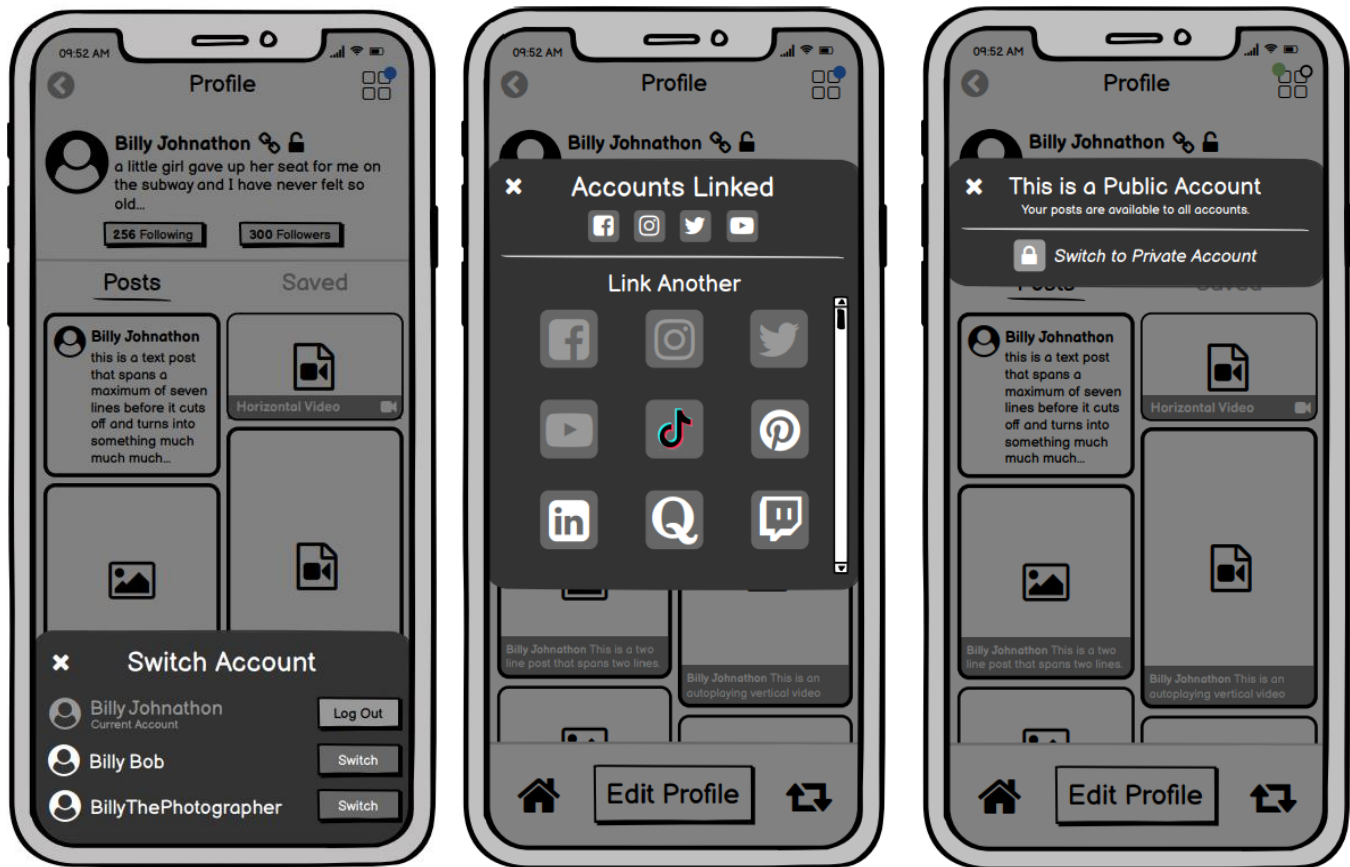
## E. User Profile View and Edit Screen



The *Profile Page* is the screen where details of the user can be viewed. The user's followers and following, all posted posts, all saved posts, their bio, profile picture, and name are displayed on this page. This information is common among all social media platforms. We laid out all information with miscellaneous information at the top and posts taking up the bottom two-thirds.

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## General Features:



There is a toggle switch to select between all of the user's profile suites – the user can have as many groups of accounts as they desire – and is where a user can log out (*Screenshot 1*).

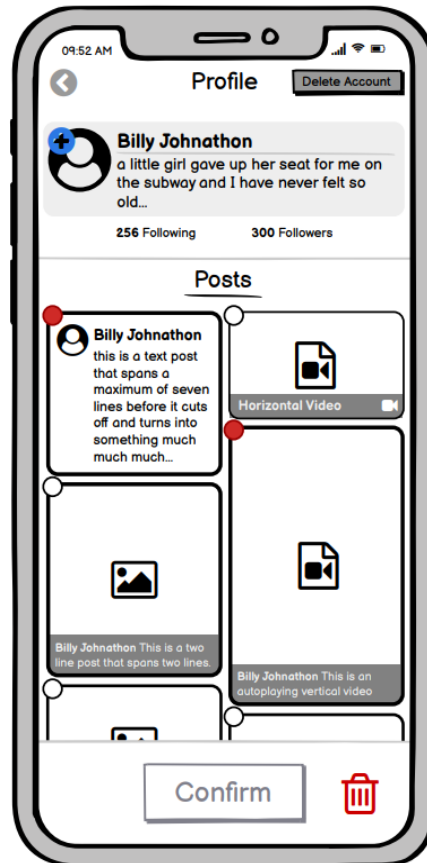
There is also an toggle button to switch between the double-column main feed and the single-column main feed. The users also wanted to link/unlink their social media accounts here. So, we provided a small button which directs them to a simple account linking page (*Screenshot 2*). We also provided the highly requested feature to toggle between a public and private account where a user's content will only be visible to their followers if private, otherwise, any user could view their content (*Screenshot 3*). A "back" button was also provided to go back to the screen from which they entered the profile screen.

A problem we encountered through evaluation is that the "Link Account" icon and the "Public/Private" icon looked non-interactable. To counteract this, we decided to place a small green dot on the top left of the "Link Account" icon, the "Public/Private" icon, and the "Switch to Grid View" icon before the user had ever interacted with these buttons. In our app, the green dots would fade in and out to help indicate that "this thing is something you can click," and the green dots would fade *slowly* to indicate that this isn't something you need to look at *right now*. The green dots disappear forever for an icon after a user clicks on the icon for the first time. The green dot will also help with exposing users to the fact that they can swap between two different layouts.

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**Users Posts:** After observations, we found that many users went back to their profile to scroll through their own posts to see any new interactions from the people that follow them. So, front and center on their profile is their double-wide feed of posts where posts can be individually expanded on. When on an individual post of theirs, they also are given the option to delete the post right there with warning messages telling the user that the action cannot be undone. This is vital as we'd want the user to make as few drastic errors as possible.

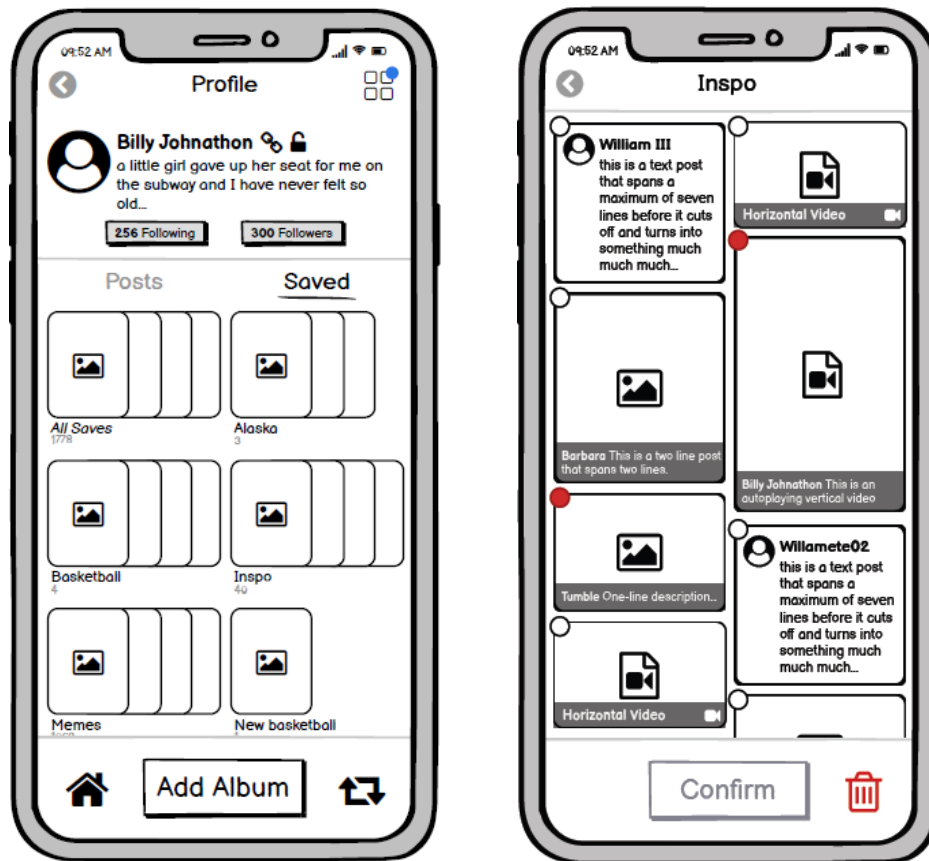
### Edit Profile:



The edit button primarily brings up a screen that allows users to remove their existing posts in bulk, edit personal information and even delete their account. When the user selects individual posts to delete, they are given a warning message telling the user that the action cannot be undone and requires the user to confirm the action. This is vital as we'd want the user to make as few drastic errors as possible. The user can also edit their display name, add a paragraph bio inside a text box, and include a profile photo for others to see.

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## Saved Posts:



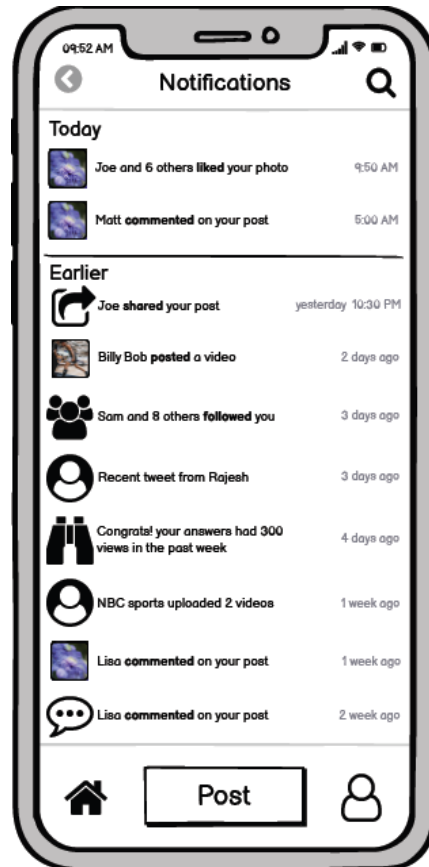
*Screenshot 1:* Next to the user's feed is a clickable button labeled "Saved". This brings up the user's albums *in place* of the user's own posts. This section has an "All Saves" album by default – a catch all if the user decides they don't have a specific place to save a post they find. This is followed by all albums that the user has created through the saving process. Through both observation and interviews, we heard that users love to have posts to come back to, so we made the saving process easy and intuitive with all saved posts easy to access rather than stuffed away behind a lot of categories. Users can click on individual albums to view them in the grid format and can edit albums right from there, including deleting the entire album.

*Screenshot 2:* We found it to be both easy and intuitive to get to the screen that shows saved posts. We did notice a potential issue on the "Edit Album" screen, however. Selecting a post in the album makes a small circle light up red in the top left of the post. There is a "Delete Album" button at the top right of the screen that was also that same color of red. What felt "natural" to do in order to delete a post from the album was to select all the posts to delete and watch the circles light up red as you select each post, click on "Delete Album", and quickly press the confirmation prompt afterwards. "Oops, you just deleted the entire album instead of a few posts." What you were supposed to press was the "Trashcan" icon, not the "Delete Album" button. To counteract this, we decided to move the "Delete Album" button to outside the editing interface and make the "Trashcan" icon have that red color instead so that the red operations go

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together and should reduce errors. We also had the ability to switch accounts in the *Edit Album Page*. This seemed out of place and unnecessary. Thus, we decided to remove the “Switch Accounts” button from the *Edit Album Page*.

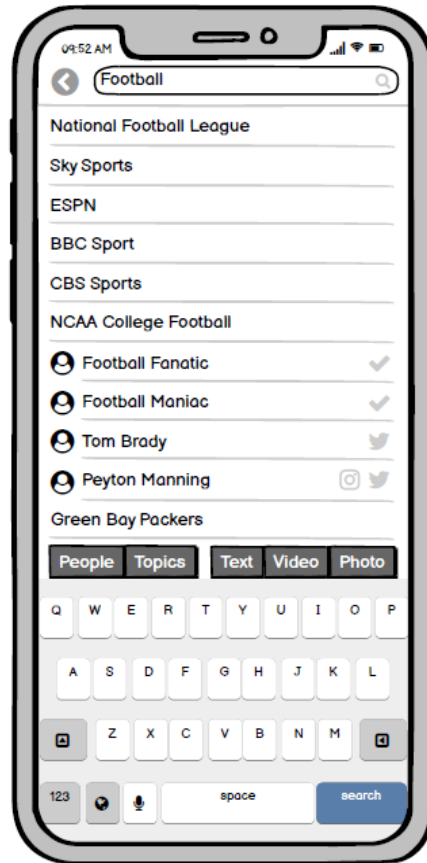
### F. Notifications Screen



The *Notifications Page* announces events that are of significant importance to the user so that they engage with the application and other users. It allows the user to view notifications from their various linked social media platforms to catch up with recent content. Here, we have provided the options to directly click the notification and the users will be redirected to the corresponding post. We have designed the screen in such a way that the recent notifications are always at the top and we have also given the timestamp of each notification which enables the user to know the time when the notification is received. We found through our observations that users tend to grapple onto their notifications so we placed the button for this on the main feed with a red dot indicator for whether the user has notifications.

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## G. Search Screen

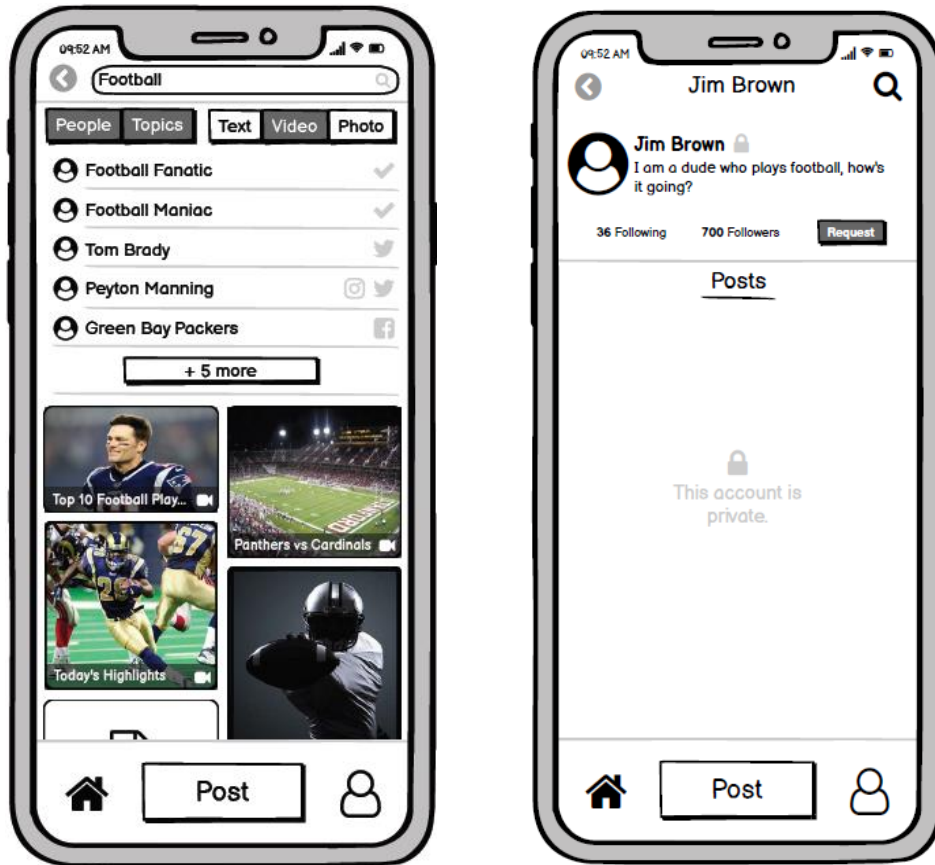


The *Search Page*, in addition to allowing the user to search the entire platform for other users or topics of interest, shows several filter options available including topics, people, and also the ability to filter by text/video/photo. Using these filters, users are able to search for topics of their interest and people they want to connect to. All of the filters are selected by default so users get the most variety of results by default. Although some applications have a singular filter button that opens up a drop-down menu for filter options, we chose to simply show all of the filter options on the screen because (1) there aren't enough options to require the use of a drop-down menu, (2) it's faster because there's one less button to press, and (3) it's easier to recognize because not everyone is familiar with the usual filter icon according to our interviews. The only text input provided is for the search, and within that input, there is a drop down menu of suggestions based on what the user types in order to let them select an option instead of typing everything out. Being able to search for topics is incredibly helpful and desired in all other social apps. There is no reason to believe this would not also be the case with ours.



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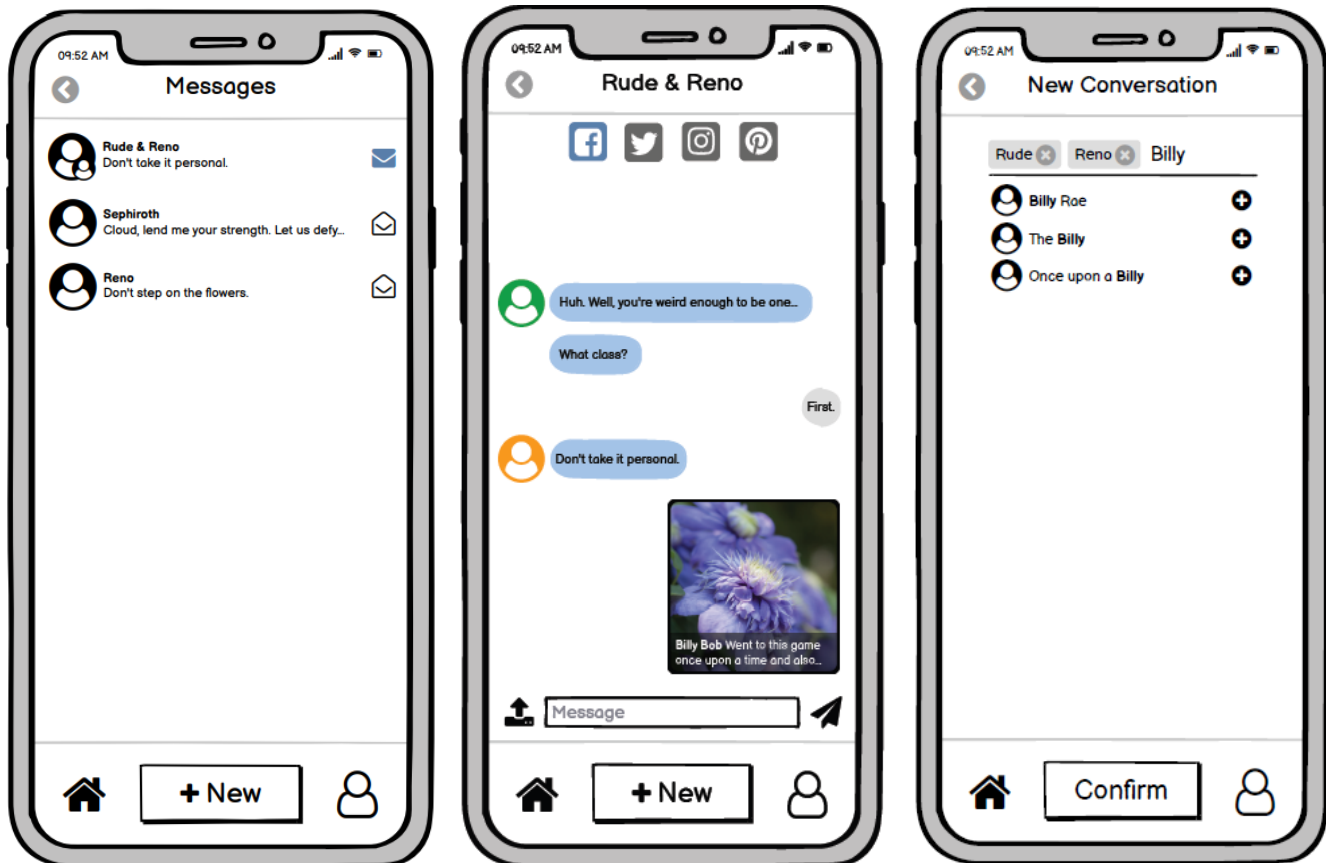
## Search Results Screen:



Once a user hits “Return” on the on-screen keyboard in the *Searching Page*, it will land them on a page with suggestions pertaining to the topic or profile of the user they selected. Being able to find users so one can follow them is a necessary feature in all social media apps, ours is no exception. On this screen, the user can click on posts, click on profiles, or scroll endlessly to the search results available for the query.

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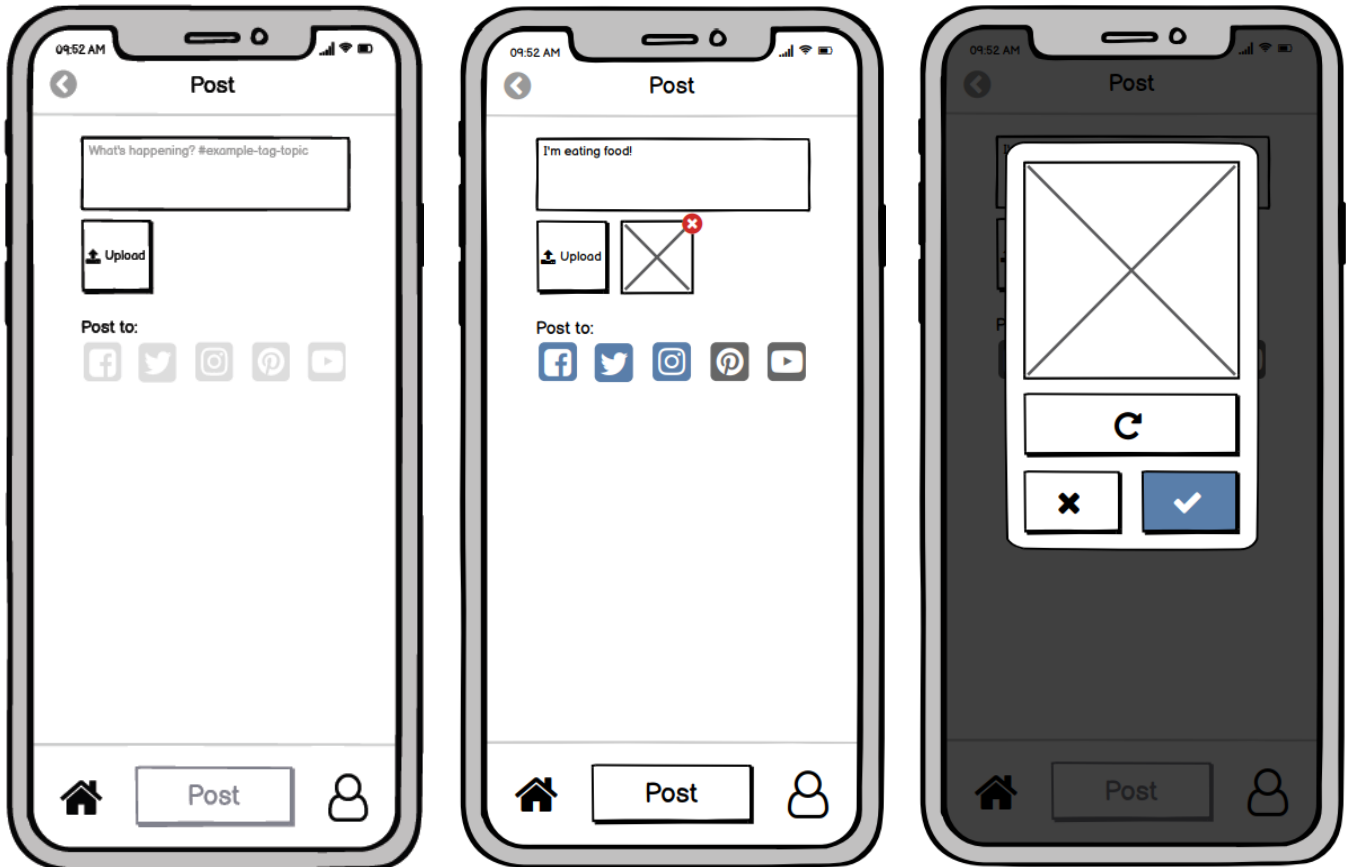
## H. Direct Messages Screen



Another vital feature we included and is common on almost every social media application is direct messages (DM) between users. Within a DM conversation, toggles exist for each social media platform (shared between participants) to message to. You probably don't want conversations mirrored across multiple platforms, but it is an option. This feature was primarily created for interacting with users who are not on our platform but are on others. For example, if a user has three social media platform accounts, we wouldn't want them receiving three separate notifications for DMs across all their accounts. An earlier design used a dropdown menu to choose a platform from the conversation creation screen. The group talked about how users may need to change which platforms to message on over time so we decided to keep the toggles always available. After that, our DM system is very similar to other messaging apps as the use case is the same. As for changes, we decided to bold the usernames to distinguish from the latest messages, and during our evaluations, we found that the read/unread icons could be enlarged and a different color if unread to make clearer to the user.

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## I. Posting Screen



What comes next is the *Posting Page*. This screen has a text input box and a scrollable image/video carousel. A scrollbar was previously in the new post menu's attachment carousel so users could tell that it was scrollable, but using the scrollbar is more of a functional visual cue, so it was removed in later iterations. The toggles for each social media platform is a key feature. If you can't post to the platform, it is grayed out and not clickable. Canceling a post draft by clicking the "Back" button pops up a confirmation dialog to avoid user error. After posting, the back end stores links to each platform's version of the post and only displays one to the viewing user in order to avoid duplicates in the home feed. The new post menu's placeholder text explains tags to people who aren't familiar with them. There are already products to post to multiple social media platforms, but our platform provides a simple interface for posting while also allowing users to ingest.

As for image editing, a popup is displayed when a user clicks on a video or image. From this screen, the attachment can be rotated, but further editing is out of scope. The image edit pop up also has an "X" and "Done" button with all options grouped together (*Screenshot 3*). Previously there was a "Trashcan" button that would remove the attachment within the image edits, but that was confused with the "X" button through evaluation. So, we removed the "Trashcan" button and instead placed a red "X" with attachments that would remove them.

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## Design Changes Since 90% Prototype:

The feedback gathered from the 90% prototype was generally positive. There were a few changes that came from that feedback as well as some other ideas we implemented as improvements between the prior prototype and final version. Below are the list of changes made to the prototype since the 90% prototype submission.

**Welcome Screen:** We have made the following changes to the welcome screen so that it looks more pleasing with simple text and it also eases the convenience to the user with single button click.

- Replaced radio buttons with Login and Signup buttons.
- Simplified slogan to “Social Media... all in one place.”

## Forgot Password Screen:

- Added “Confirmation” to “Confirmation code sent to email” placeholder text in the input box to make the message clearer.
- Added a button that sends code to the email address, and then a code text box appears in the next screen so that email confirmation is actually possible. Previously the screen required an email and code simultaneously.

## User Interests and Social Media Login Screens:

- Removed user interest screens entirely as they do not have any functionality relating to our platform.
- Made social media icons larger and in gray to look more like buttons.
- Removed individual username and password prompts from social media logins as that is handled by the platforms themselves. Added individual buttons to remove platforms after the fact.

## Posting Screen:

- Removed scroll bar in favor of an implicit scroll as the use of the scroll bar was confusing.
- Made social media icons round to fit in with the rest of the application.
- Moved delete photo button to the overall posting interface as red X's in the corner of each photo so that the “delete” button wasn't confused with the “cancel edits” button.
- Enlarged photo edit buttons and made the “done” button blue to distinguish from the “cancel edits” button.

## Post Interactions:

- Added the “done” button when naming a new album from saving screens, as previously this was done with the “return” functionality on the keyboard which should only really minimize the keyboard.

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## Albums:

- Made trash can red to make selecting posts and the associated trashcan go together better.
  - Moved delete album to a different album screen prompted by the “...” button.
  - Added ability to rename album and can be accessed from the “...” button as analytical evaluation showed that there was a chance that users wanted to rename an album in future.
- Replaced the switch account button with the profile button as it doesn't make sense to need to switch accounts from the album screen.
- Replaced the “Edit Profile” button on Saved Screen to be “Add Album” where a user can create a new album here. Editing the profile from the album screen was unnecessary.

## Profile:

- Made “Delete Profile” gray and trash can red to make selecting posts as red and the associated trashcan go together better.
- Switching to grid view and vice versa now has a prompt explaining what the action does as the icon isn't very self explanatory.
- Added functionality to deleting an account, where they are warned of their actions before anything irreversible is done. Users were consistently upset with current platforms about how difficult it is to remove an account so we made ours very simple.
- Changed boxes showing which text fields are editable in the edit profile screen to match the rest of the application for text fields.

## Switching Accounts:

- Moved current account to the top, added a label saying it's the current account and made the log-out button darker to differentiate. Prior, it wasn't clear which account was the current account.
- Made linked account suites have a switch button rather than a logout button as users were confused by the ability to logout of an account that wasn't currently active.

## DMs:

- Enlarged read/unread icons and made the unread icon blue to differentiate. These icons were not noticeable before.
- Replaced user square photos with circle icons to match the rest of the application.
- Removed the general search icon as it was being confused with a way to search for a contact.
- Added search functionality where when the user selects a recipient, it adds them to a list in the search bar where they can remove them from that list. This fixed the previous method which didn't actually have the ability to search for people to add.
- Updated social media icons to match the rest of the application.
- Removed user's own profile picture as a user can tell which messages are their own by seeing which messages are aligned to the right.
- Added filler text (“Message”) to the empty text box to make clear that the box is clickable.

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## **Search:**

- Changed “return” to “search” on the keyboard, and make it blue to stand out and show that it is important.
- Decreased size of filter buttons and made the selected ones filled in with gray to stand out more.
- Made dividing lines and text smaller to decrease clutter.

## **Conclusion:**

We had guided our efforts of designing the interface by following the PRICPE process. Throughout the design of this prototype, we have made repeated reference to the usability goals, analytical research, and empirical research. Following, we conducted analytical and empirical evaluations. We believe our prototype addresses the usability problems, and we further believe that our prototype will improve the user experience for our end-users. We are confident that we delivered an interface that will serve our users needs of all things they would prefer in social media aggregation.