# **Gratitude++ Update Document**

11/13/2023

## **Overview**

Gratitude++ has gone through several changes to this point in the process. The team has worked to follow the requirements document and other documentation as closely as possible, but changes were necessary during development.

This document is an overview of the progress the team has made thus far, outlining the changes to the project, what the team has currently completed/worked on, and areas that have not yet been touched.

While the original documents provided a good general outline to follow for the creation of the website, it was decided that the original documentation did not foresee all necessary changes and problems that would occur during the creation of this site.

## **Project Changes**

Beginning with the changes, the team had decided that only a small number of changes would be necessary to make the project work. Without sacrificing the overall performance of the site, the goal was to create an easy-to-use application for all users of the site, and it was found that these changes made it easier not only for the user but for the development team as well.

### Modals

The first major change to the site was the removal of most modals that were outlined in the requirements document. This change felt necessary to help make the website as user-friendly as possible with the inclusion of a mobile-first site functionality. To make it easier to use, modals such as user registration were replaced with page navigations, making the use of the site on a mobile device easier. Though standard page modals were replaced with page navigation, the confirmation modals for things such as creating new journal entries remain as a secondary check before actions are completed by the user.

Navigation

The second change that was made to the original documentation was the change in the way that the user navigation bar was displayed. The original requirements called for certain pages to be shown with a sort of label to them, such as “My homepage” or “Community page”. These items were changed to make it a more straightforward look to the site when you’re looking at the navigation bar. All items in the navigation bar have now been changed to a standard one-word identifier, such as “Homepage”, “Community” and so on. These changes made it look more seamless when looking at the navigation bar, and they also look better on a mobile site. With the removal of the additional words the navigation bar no longer has text wrapping for the page names, creating a better overall look.

User Information Display

The third change from the requirements document was changing the display of the user’s personal account information on the site. Originally the site was supposed to show the user’s profile picture on the homepage and in the user settings. These items have been removed from these locations and instead placed on a topbar on the site. The topbar now displays the website logo, the user’s profile picture and username, and the navigation bar menu. These items were moved so now the user will be able to see their username and profile picture on all pages they visit on the website no matter which page they are on. The change just adds to the overall appearance of the site and makes the page seem full instead of big areas without content.

### Page Formatting

Another change that has been made to the project is the general formatting for certain items. s Removing the idea of a standalone admin page, moving the account deletion button to the user settings and the addition of a journal entry creation button on the homepage. These changes felt necessary to help create a better flow of the site without cluttering the homepage and putting functions where they would make the most sense to be used.

The addition of the admin settings and account deletion to the user settings page seemed like the most logical choice to keep all settings related to user account management in one place.

The addition of the create entry button on the homepage puts it in a place where users spend most of their time on the site, an area where the user is always navigated back to and somewhere that makes it simple for them to create a new entry.

These changes seemed to help the site not seem so scattered in its layout and have every component where it makes the most sense.

Audio

The developers have decided on not including audio input for user journal entry creation at this development stage of the project. While the idea of having multiple forms of input to create the entries seems intriguing, the creation of multiple ways for users to record their ideas seemed a step too far for the scope of the project. The implementation of the audio input would require the team to use other libraries to complete the task, along with familiarizing themselves with the technology to ensure that it is correctly able to render the user’s audio. The focus of removing this is to ensure that all other aspects of the project can be done to the highest standard without sacrificing quality to include unnecessary components. The site will now only feature one form of input for journal entry creation and that will be text input.

**Work Completed**

Beyond the changes made to the original project ideas, there is a list of items that have been worked on by the team throughout these last couple of months. From the original design plan, several items have been completed and are in complete working order for the final product.

Authentication

The first item that has been completed is the user sign into the website. Sign in is handled through firebase authentication, which will redirect users to another page and ask them to sign in using their google account. Once signed in, users will be redirected to either the user registration page or the sign in homepage of the website. All items associated with the sign in process have been completed and users are being correctly authenticated when they login.

### Server Hosting

We are happy to report that all stages of the project thus far have been deployable on the server through Replit hosting and see no major issues for the same with the finalized version.

Journal Entry Creation

The next item that has been completed is the creation of the journal entries themselves. With this being the core idea behind the entire site, the team sought this function out early to ensure that it would be properly working when time came for the final product. The page where the entries are created follows the same layout outlined in the UI Storyboard and features all functionality that had been outlined in the requirements document. The data is being correctly stored at the user’s personal location upon the creation of the entry and is also uploaded to the community page based on a toggle switch on the page. While stylistic changes may be made to the page itself, the overall functionality of the journal entry creation is complete.

Entries as List Items

Another item that has been completed is the viewing of content by clicking on the headline and date that is present on the user’s homepage. When the user clicks on the link, they are directed to view the entry with the headline, date, and content all available to them. This same functionality is present on the community page, where users can click community entries and view them similarly to how they view personal entries. The one difference between the personal entries and the community entry viewing is the inclusion of the username on the community page letting you know who originally created the entry.

Community View

The viewing for the community entries themselves is complete, although other areas tied to it are not. Similarly, to how the user is able to view entries on their homepage they are also able to view the community articles. Different from the homepage view is that the content data is not written in the database under the community page, but instead is still written in the user’s personal node. Upon clicking the link to view the entry a reference to that user’s specific entry is created and it pulls the content from there. Setting up the community page data in this format keeps the data from being written in the same place twice for the same data, keeping the database from getting so cluttered.

### User Profile Information

The final item that is complete is the updating of the user’s profile information. As stated in the requirements document, the team has continued with the idea to only allow the user to update the profile picture on their account and not let them change their username. The profile picture is currently allowing you to cycle through a collection of four images to choose from, and the information inside the database will be updated according to the new picture. If the user decides to not update the picture, either by navigating away from the page or not confirming their selection, the image will remain the same without any changes being made. While some stylistic changes may be made to the look of the page in the future, the team feels that the updating of the profile picture is complete functionality.

## **Work In-Progress**

Beyond discussing which items have been completed for this project, we will also discuss items that are currently in development.

Entry Flagging

The first item that is going to be talked about is the flagging for community posts. The idea is that users can flag posts they don’t like or find offensive, and if the post reaches a certain number of flags, it will be removed from the community page. The button for the flagging has been put in place, but no real implementation for the button has been worked on to this point.

Word Cloud

The next item that is currently in progress is the word cloud on the user’s homepage. React provides many good features that allow for the creation of the word cloud, and the team has used these to create a generic word cloud with static words to test the overall functionality. The word cloud is going to be populated with a collection of words from the user’s headlines and content, but so far, the string arrays to build it have not been created. The team is currently working on developing these arrays and pushing them to the word cloud to create the core component of the site. Beyond the words in the word cloud, the addition of clickable words needs to be implemented so that users may view any entries that tie into those words.

Resources Page

The next item is the addition of links into the resources page of the website. While not an extremely difficult task in itself, the team feels like finding the correct links to add to the site is a vital part of the completion of this project. In that sense, the addition of the links is a rather trivial task, but finding the correct links to add to the page is another process that takes time. In keeping with the spirit of the site, links are all related to things such as self-improvement and empowerment, and finding links that coincide with those values and beliefs is something that requires research to find the best resources for that purpose.

Logout/ Confirmation Modal Implementation

Another item that is currently in progress is the user’s logout function. When the user is done with the site, they can log out by clicking the logout button inside the navigation bar. The logout button uses features from firebase to ensure that users are properly logged out of their Google accounts. While the basic functionality of the logout is working, the users should be prompted if they wish to continue with the logout process or not. This task needs to have basic confirmation in the form of the confirmation modal to ensure that users are satisfied with their choice to log out of the site. While a seemingly small item, this ensures that users cannot log out of the site by accidentally clicking on the logout and forcing themselves to go through the login process again.

### Search Functions

While the display for the entries on the community and journal history are complete, the search functions are still an area that is being worked on. The general idea of the search bar is that a user wouldn’t have to comb through all of their previous posts or the community posts to find what they’re looking for. So far, the search bar itself has been created, and it is currently being worked on to add full functionality. Users can currently use the search bar, but it is not displaying all results currently based on the search. This is an area that the team is looking to work on to get finished, as the search function is a big part of the final design of the project.

Community Page

Another area that has seen work but has not been fully implemented is the journal history page itself. The list of entries from the user is correctly rendering on the page but it is not currently displaying in the ideal format for the site. The idea behind the history page is to give users an area to view all recent entries they have made, and to search for things they want to find. As mentioned above, the search functions that help this page are currently in progress, as is the final formatting for the journal history page. The result should be a listing of posts from most recent to least, showing only a predetermined number per page so as to avoid clutter and not require constant scrolling.

Entry Display Page

The final area that is in progress is the article page viewing with the user’s content. While the content and the viewing of the article itself is considered complete, the overall page is being worked on to add a delete button to personal entries. This button will require users to have write access to the entries, which will require a listing of security rules to ensure that they are authenticated in the site.

Security Rules

The security rules have currently not been put in place but are in progress to ensure that all data in the database is secured and only given access to those who meet the requirements. Beyond the security rules the overall functionality of the button has not yet been put in place. Users who click the button should be prompted to confirm their selection or not and be allowed to choose to continue with the process or not. If the user confirms it should delete that specific node from the database without touching any other information, as well as removing the item from the community page if it were there.

**Unresolved Issues**

The team has worked to get the website working in as quality a manner as possible, and doing so means spending lots of time working on certain components to get them to function properly. This means that some areas are not focused on as heavily as others, and some go untouched altogether to this point. With the way that this project has worked for the team, it was found that many areas were required to be integrated together before they could work. This means that very few items from the outlined requirements have gone untouched to this point in the project. There are still areas that have not been given time to allow them to be ready for the final deployment. Areas of unresolved work include:

Database Security Rules

While security rules are important, the firebase documentation suggests leaving the rules as open as possible when developing an application. This allows for the development team to work with the data inside the database as much as possible without being hindered by security checks. The documentation states that as the project gets closer to deployment the security rules should be tightened down. In keeping with that idea, actually working on the security rules is something that will wait till the end of the project before they are properly implemented. This will allow the team to run through full testing of the project and ensure all areas are working properly without hitting any roadblocks that may slow down development.

## Word Cloud Component

The full implementation of word cloud component is the largest single feature yet to be implemented. The nature of the feature and the prominence of its display makes it a must-have and therefore a major impact on the project's success.

This component requires detailed knowledge and collective use of libraries, node.js, React.js, Firebase queries, CSS stylings, and html tags in order to work properly. It stands to reason that (while currently partially implemented) the full launch of this feature was always going to be one of the last components in the project fully completed.

## **Conclusion**

The developers on the project believe the above synopsis of the current state of the project offers a good snapshot of current progress in the application development at this stage. We also believe that we should have a minimally viable product that is deployable for presentation by the completion deadline.

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