

Gratitude++ Requirements Specification

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PROJECT NAME

The team has decided to create a web application journal that helps focus positive events and feelings towards a sense of gratitude for the user. Taking this into consideration as well as this is a computer science project, we have named the project Gratitude++.

TEAM MEMBER NAMES

See Figure 1 in the appendix for detailed description

ABSTRACT

This project proposal outlines the development of a dynamic web application designed to empower users into cultivating a sense of gratitude through personalized journaling. The application will be built using a technology stack including React, TypeScript, Bootstrap and Firebase.

The application will allow a user to express themselves using various content formats including text, video, and audio files. The daily titles of the journal entries will be utilized in creating an interactive “word-cloud” that will display keywords more prominently depending on their number of inclusions. By blending technology and personal expression, the application aims to promote mental well-being and foster an “attitude of gratitude” and provide users with an innovative and meaningful experience.

TOOLS AND TECHNOLOGIES

See Figure 1 in the appendix for detailed description

REQUIREMENTS LIST

1. Sign-in Form:

1.1.: (Onboarding) Sign in will run through Firebase authentication services

1.1.1: On click, users will choose a sign in method

1.1.1.1: Google account sign in

1.1.1.2: Facebook sign in

1.1.1.3: Microsoft sign in

1.1.1.4: Phone number sign in

1.1.2: If sign in fails, users will be prompted to try again

1.2: Upon successful sign-in a user will either be directed to

a. User’s home page (if account is present)

b. Registration Modal (No account Present)

(see Registration Modal)

2. Dialog boxes (General)

2.1: Every dialog box will have an ok button and a cancel button

2.1.1: The ok button will confirm the user's selection to complete the action and close the dialog box

2.1.2: The cancel button will close the dialog box

3. User account registration modal (Onboarding)

3.1.: Users will be required to create an account in pop up modal

3.1.1.: Accounts must have an account name

3.1.2: Account names will be required to meet certain criteria

3.1.2.1: Names cannot begin with a number

3.1.2.2: Names cannot contain any spaces

3.1.2.3: Names must contain more than one character

3.1.3: All account usernames must be unique

3.1.4: Names will be confirmed by clicking the “confirm” button

3.1.4.1: On click, checks for existing name in the database

3.1.4.1.1: If no match is found, confirm the user's selection

3.1.4.1.2: If a match is found, prompt the user to try again

3.1.2.: Accounts must have an account avatar

3.1.2.1: The users will be given a choice of preselected avatars to choose for their account

3.1.2.2.: If the user does not choose an avatar, they will be given a default image

3.2 Upon successful completion the user will direct to their personal home page

4. Page Navigation

4.1: There will be a navigation menu to navigate the site

4.2: There will be a place to display the username and avatar

4.3: There will be a tab called “My Homepage”

4.3.1: This tab will take the user to their homepage

4.3.1.1: This will display user information, including:

4.3.1.1.1 Avatar

4.3.1.1.2 Username

4.3.1.1.3 Journal Entry Component

4.3.1.1.4 Word Cloud Component

4.3.1.1.5 Delete User Button

4.3.1.1.5.1 Pressing delete will create confirmation modal

4.4: There will be a tab called “Community Page”

4.4.1: This tab will take the user to the community page

4.4.1.1: This page will display posts by all users marked public

4.4.1.1.2: Post will be able to be flagged by any user, removing them from the community page (no other administration needed)

4.4.1.1.2.1: Post removed from the community page will stay on the user’s account

4.4.1.2: Posts on this page will not be editable

4.5: There will be a tab called “Resources”

- 4.5.1: This tab will take the user to the resource page
 - 4.5.1.1: There will be a label Resources
 - 4.5.1.2 There will be a list of hyperlinks to resources related to mental health
- 4.6: There will be a tab called “Journal History”
 - 4.6.1: This tab will take the user to their Journal History page
 - 4.6.1.1: see Journal History Component
- 4.7: There will be a tab called “User Settings”
 - 4.7.1: This button will take users to their personal settings page
 - 4.7.1 see User Setting Component
- 4.8: There will be a button called “Logout”
 - 4.8.1: This button will log the user out of their account
 - 4.8.1.1: Users will be prompted if they wish to log out or not

5. Journal Entry Component

- 5.1 There will be a label that prompts a user to enter a headline for the daily journal entry
- 5.2 There will be a text box that will take a user’s headline entry
- 5.3 There will be a toggle switch for a user to choose the format of the entry as either text or audio
 - 5.3.1 The toggle will be set to text by default
 - 5.3.2 While the toggle is set to text a text box will be visible
 - 5.3.3 The toggle can be set to Audio
 - 5.3.4 When the toggle is set to audio an audio module will be visible
 - 5.3.5 There will be a Record, and a Play Button
 - 5.3.5.1 When record is pressed the audio module will use the user’s recording device to record an audio entry. Pressing the button again will stop the recording.
 - 5.3.5.2The play button will play the current recording
- 5.4 There will be a Post button that allows a user to submit the current entry and headline.
 - 5.4.1 When Post is pressed a dialogue box will pop up to confirm or cancel the post
 - 5.4.2 If confirmed the entry will be sent to the database
 - 5.4.3 If canceled the dialogue box will close
- 5.5 There will be a Cancel Button that allows a user to cancel and delete a current entry.
 - 5.5.1 When submit is pressed a dialogue box will ask to confirm or cancel
 - 5.5.2 If confirmed the current headline and entry will be reset
 - 5.5.3 If canceled the dialogue box will close
- 5.6 There will be a public or private toggle button for entries
 - 5.6.1 Private will be the default position
 - 5.6.2 When private is selected posted submissions will not be visible on the community page
 - 5.6.3 When public is selected then posted submissions will be visible on the community page

6. Word Cloud Component

6.1 There will be a Word Cloud component that visually represents the key words taken from all the user's headlines that have been posted.

6.1.1 The word cloud will be of varying sizes and colors in relation to the number of occurrences of key words.

6.1.2 The word cloud should utilize dynamic visual tools such as on-hover distinctions

6.1.3 The keywords should individually be clickable

6.1.3.1 Clicking a keyword will navigate to pop up window that will display all posts made by that user that contain that keyword

6.1.3.2 A list of article headlines and date stamps and content will be listed in order from most recent.

6.1.3.3 Clicking a headline will populate the Article Display Component

7. Journal History Component

7.1 Will display a list of all a current user's posted articles listed from most recent

7.1.1 Will have label with page name "Journal History"

7.1.2 Will have search bar for keywords in headlines

7.1.3 Will be listed by headlines with Date Stamp included

7.1.4 Will be a web page accessible from navigation

7.2 Clicking a headline will create a modal instance of the Article Display Component populated with journal headline and content

8. Community Page Component

8.1 Will display a list of all public marked posted articles from all users listed from most recent

8.1.1 Will have label with page name "Community Page"

8.1.2 Will have search bar for keywords in headlines

8.1.3 Will be listed by headlines with Date Stamp included

8.1.4 Will be a web page accessible from navigation

8.2 Clicking a headline will create a modal instance populated with journal headline and content

9. Admin Page Component

9.1 Will display a list of all User Accounts currently active

9.1.1 Will have label with page name "Admin Page"

9.1.2 Will be listed by username

9.1.2.1 Will include date created

9.1.3 Will have a delete button

9.1.3.1 Clicking delete will create pop-up modal asking to confirm action

- 9.1.3.2 Confirming delete action will delete that user account
- 9.1.4 Will be a web page accessible from navigation ONLY if user is an administrator

10. User Settings Component

10.1 Users will be able to do the following on the page:

10.1.1 Change username

10.1.1.1 Selecting change username will create modal

10.1.1.1.1 Labeled Change Username

10.1.1.2 Text box for username entry

10.1.1.2.1 (Follows same requirements of initial username selection)

10.1.2.1 Confirm Button

10.1.2.1.2 confirmation replaces current username in database

10.1.2.3 Cancel Button

10.1.2.3.1 cancel closed window with no change

10.1.2 Change avatar

10.1.2.1 Selecting change avatar will create Modal

10.1.2.1.1 Labeled Change Avatar

10.1.2.1.2 Shows current avatar

10.1.2.1.2.1 Clicking avatar brings up modal to choose image file

10.1.2.1.3 Confirm Button

10.1.2.1.3.1 confirmation replaces current username in database

10.1.2.3 Cancel Button

10.1.2.3.1 cancel closed window with no change

10.1.3 Delete account

10.1.3.1 Users will be given a prompt to confirm if they wish to delete their account before doing so

10.1.3.2 If the user clicks confirm, their account will be deleted, along with their posts and username from the database

10.1.3.3 If cancel is selected, the prompt will close

11. Article Display Component

11.1 Will be a Modal that contains:

11.1.1 Article Headline

11.1.2 Article Content

11.1.3 Article Delete Button (If owned by user)

11.1.3.1 Selecting delete will create a confirmation modal

11.1.3.2 Confirmation will delete article from database

12. Mobile Site Component

12.1 Site will be friendly for mobile users

12.1.1 Website will configure containers and information to fit a mobile device

12.1.2 All pages on mobile components will be easily navigated

12.1.3 Journal entries will allow for images to be uploaded from mobile devices

APPENDIX

Figure 1: Developers/Architects

Name	Role
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Joel Scott	Developer, Architect
Benjamin Seifried	Developer, Architect

Figure 2: Tech-Stack

Name	Purpose
Node.js	Framework/library to implement server
React	Framework/library to assist with front-end development
Firebase	Database to store information
Replit	Server Host
GitHub	Version Control

Figure 3: Tentative Schedule

Week 1: August 28 th – September 6 th	All Members: Project proposal, assessment of strengths and weaknesses, determination of technology and software, information gathering
Week 2: September 7 th – September 13 th	All Members: Project requirements, refinement of project ideas, setup of technology for project development
Week 3: September 14 th – September 20 th	Benjamin: Focus on front end development, Familiarizing with ReactJS, TypeScript, and JavaScript Joel: Focus on familiarizing with back-end technology NodeJS and Firebase
Week 4: September 21 st – September 27 th	Benjamin: Begins to setup overall base of website, sets up front-end environment, and continues to work with ReactJS, TypeScript, and JavaScript Joel: Begins to setup the database component, setting up back-end environment, and continues working with NodeJS and Firebase
Week 5: September 28 th – October 4 th	Benjamin: Continue working on front-end environment, uses HTML (Hyper Text Markup Language)

	<p>and CSS (Cascading Style Sheets) to create basic design of website</p> <p>Joel: Connects database to front-end environment, assists with front-end development, sets up connection for server component of the website</p>
Week 6: October 5 th – October 11 th	<p>Benjamin: Continues working on front-end environment, works on creating UI and creating user journal entry page</p> <p>Joel: Assists with front-end, creates data structures to sort and manage user profiles within the server, tests, and debugs current back-end code to ensure quality</p>
Week 7: October 12 th – October 18 th	<p>Benjamin: Begins with word cloud implementation, develops subject categorization</p> <p>Joel: Works on back-end development, works on user-authentication through Firebase</p>
Week 8: October 19 th – October 25 th	<p>Benjamin: Continues front-end development, works with team to integrate front-end and back-end together</p> <p>Joel: Continues back-end development, works with team to integrate front-end and back-end together</p>
Week 9: October 26 th – November 1 st	<p>All Members: Continue integration between front-end and back-end, begin working on project poster</p>
Week 10: November 2 nd – November 8 th	<p>All Members: Continue working on project poster</p> <p>Benjamin: Works on developing navigation bar, creating menu items to navigate around site</p> <p>Joel: Continues working on server component, tests and verifies that site has valid connection to server</p>
Week 11: November 9 th – November 15 th	<p>All Members: Continue working on project poster</p> <p>Benjamin:</p>

	<p>Integrates front end and back end, works on UI and ensuring that navigation bar is functioning properly</p> <p>Joel: Works with database, ensures that information is being stored and brought to the website</p>
Week 12: November 16 th – November 22 nd	<p>All Members: Finish project poster</p> <p>Benjamin: Continue testing features of the website ensure that all features function as intended</p> <p>Joel: Test back-end development, ensure that server and database components are working properly</p>
Week 13: November 23 rd – November 29 th	<p>All Members: Continue testing of project, ensure that integration between the components is working</p>
Week 14: November 30 th – December 6 th	<p>All Members: Continue testing and debugging, begin preparing for final interview and project presentation</p>
Week 15: December 6 th – December 12 th	<p>All Members: Project finalization, continue working with group to ensure that they are prepared for the final interview and presentation</p>