Milestone 1 Project Proposal and High-level Description

Course: CEN 4010 - Principles of Software Engineering

Semester: Summer 2020

Team Name: FunkyTech

Team Number: 7

Project Name: Gather+

Team Members:

- **Michael Resendes: mresendes2017@fau.edu (Team Lead)**
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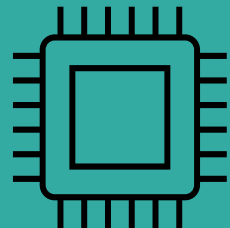**Date: 6/16/20**

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Peer Evaluation

After conferring with all Group 7 members, we believe all four members of the group were actively involved in this Milestone 1 assignment and that contributions were evenly made.

Michael Simon (25%) wrote the "Complexity Analysis" document.

Brent Werne (25%) wrote the "List of Non-Functional Requirements" and "High-level System Architecture" documents.

Betsy Kuruvila (25%) wrote the "Overview, scenarios and use cases" and "List of High-Level Functional Requirements" documents.

Michael Resendes (25%) wrote the "Executive Summary" and "Data Definition" documents.

Executive Summary

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People in today's world live in a very uncertain time. In the current year alone, we have seen unprecedented events that have taken both a physical and mental toll on the public. Over the past few months, the COVID-19 pandemic and quarantine practices have radically changed the lifestyles of billions of people around the globe. Many of us now lack the daily interaction we had with our friends, peers, and coworkers. Although things like social media can help remedy these feelings of isolation and separation, we believe these platforms do not go far enough in giving their users the camaraderie they desire.

We, the working members of FunkyTech, have decided that people now need a social platform that goes beyond surface-level sharing and posting. This decision of ours will take the form of our website Gather+, a platform based on connections rather than content.

Gather+ (pronounced Gather-PLUS) will allow its users to join communities centered on topics that interest them and communicate with other people within that group. Unlike other sites which use character/post limits and content rating algorithms that hamper communication, Gather+ will promote the idea that every user should be able to join a community and be a part of the conversation. Users will be encouraged to engage in thoughtful discussions centered on uplifting topics that many people are missing because of the pandemic.

COVID-19 has revealed that millions of people still struggle with the loneliness of quarantine/lockdown despite the abundance of social media platforms available in web and mobile form. Thus, Gather+ and its emphasis on "connection over content" will seek to bridge people together and form communities that will ideally outlast the pandemic.

Complexity Analysis

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Gather+	Competitors (Facebook, Twitter, Reddit)
Connection-Based	Content-Based
Equality of All Material	Content Rating
Positivity Focus	Monetization Focus
Ad-Free	Paid/Promoted Advertisements

The motto for the development of Gather+ is "Connection over content", which is what we believe will separate Gather+ from many of the traditional social media sites used today. Sites like Facebook, Twitter, and Reddit all revolve around the idea of their users submitting content through their profiles. This content is then subject to a rating system (Facebook likes, Twitter retweets, Reddit upvotes) that prioritizes more popular content. These systems ultimately incentivize users to post content that has the best chance at being viral, and while this mindset does have its advantages (primarily financial ones), we believe it also has drawbacks that can prove detrimental to many users. Since more popular content is often easier to see on these platforms, some users may feel like their impact on the site may not be as important since they do not have as big a following as other users.

This is the issue that Gather+ seeks to resolve. Instead of "content-based", Gather+ will be "connection-based" and allow all users to be on equal footing. Users will join discussions that will not be driven by a rating system. Therefore, all users and not only the popular ones, can make a substantive contribution to the conversation. Users can measure their perceived success on Gather+ by the number of meaningful and engaging conversations they partake in, instead of feeling measured by a voting system. Additionally, Gather+ will place an emphasis on encouraging content, ensuring that users will enjoy the website and feel welcome on it.

Data Definition

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The team name for Group 7 in CEN 4010. Composed of Brent Werne, Michael Resendes, Betsy Kuruvila and Michael Simon.

"Connection Over Content"
The team motto for this project's development. The emphasis is on designing our application to encourage users to engage in thoughtful conversation, and form lasting bonds with other users, rather than posting content for feedback.

Gather+
The name of the website/web-based application that will be hosted by the team's account on the LAMP server. (Pronounced: Gather-PLUS)

Feature Page
The home/landing page of Gather+. Users will be greeted on-screen with several positive messages and news articles. New users will be prompted to create an account and select one or more of the four central hubs listed on the Feature Page. An invitation to visit the Wellspace section of the website shall also be presented.

Blurb
A short, optional biography a user may add to his or her profile once it has been created.

Wellspace
A section of Gather+ specifically dedicated to resources on COVID-19 and wellness. Relevant information will be posted here to keep users up-to-date on news regarding the pandemic, and what precautions they can take to keep themselves and others safe during quarantine/lockdown.

Hubs

Separate web sections of Gather+ dedicated to a central topic that interest users. Default topics for each of the four hubs will be: Books, News Stories, Podcasts, and Games. Users can visit the different **hubs** and observe the hub carousel, which will showcase the varying topics of discussion hosted by the **hub**.

Central Topic

The principal theme of each of the four hubs listed on the Feature Page of Gather+. These Topics will be…

Books: The Books Hub will be dedicated to discussions on any fictional or non-fictional literature works, past or present. Some examples of possible subjects within the Books Hub include: narrative analysis, new book releases, and general conversations about certain authors, series, or genres.

News Stories: The News Stories Hub will be dedicated to current events with an emphasis on positive and encouraging news that will uplift readers in a time of quarantine. Some examples of possible subjects within the News Stories Hub include: success stories within local communities, emerging charitable opportunities, and articles on efforts to combat the pandemic.

Podcasts: The Podcasts Hub will be dedicated to interesting podcasts that users within the hub can enjoy listening to regularly. Some examples of possible subjects within the Podcasts Hub include: a user recommending a new and relatively undiscovered podcast, discussion on specific episodes of a series, and information for users on how to start a new podcast.

Games: The Games Hub will be dedicated to gaming and the connection it provides while practicing social distancing. Some examples of possible subjects within the Games Hub include: users looking to form groups for an online multiplayer games, tips regarding trending games, and user-recommended games that are ideal to play remotely.

Hub Carousel

A slideshow found on the landing page of a hub that will showcase a series of images called placards.

Placards

The images displayed on the hub carousel. Each **placard** will represent an individual media item such as a single book, an article, podcast, or game. Each **placard** will be coupled with a brief description of its content.

Community

A message board that will serve as the place of discussion for the subject listed by a placard. Users will have the option to join a default **community** associated with each placard or create a new one.

Overview, Scenarios, and Use Cases

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The Gather+ web-based application will serve to be, as its name implies, an online gathering place that closes the social distance created by COVID-19, in a unique and uplifting manner. Whereas self-promotion is the byproduct of many social media platforms, Gather+ focuses on positivity and connection through the formation of group discussions based on four distinct categories: books, news stories, podcasts, and games. Content for each category will be a curated selection of encouraging, intriguing, and mindful items hosted by Gather+ and sourced by other websites. The target audience for Gather+ is seen as youth ages 16 and above, including but not limited to students, young adults, and families.

Say the user is a 17-year old high school student named Ava who has been in quarantine for three months already, with only her mom for company. Not only is she restless, she misses her friends, and somehow making a TikTok video they like is not the same as getting together. She is also separated from the rest of her family, and the constant barrage of news about the pandemic gives her a perpetual sense of anxiety.

When Ava is introduced to Gather+, she'll be greeted by a banner of affirmative quotations on the feature page, which will also showcase a positive news story, a welcome message, and the four main categories inviting her to a new level of engagement. A simple, intuitive, and interactive GUI makes Gather+ easy for Ava to navigate with her average computer skills; and the premise of the site will be largely self-explanatory.

In order to access content and groups, Ava is prompted to create an account. Her account will consist of intentionally basic profile information, such as an avatar or a single photograph, a username of her choice, and an optional 300-character "blurb" biography. Upon creation and login, Ava can click on the icon for any of the four categories, each of which will lead to its own landing page known as a "hub".

Each hub will show Ava a "carousel" of books, news stories, games, or podcasts by way of a "placard" containing a thumbnail or image. Ava can peruse each placard by sight or by the accompanying description of the subject matter. When Ava sees a placard that piques her interest, she can opt to join the associated "community" where she can discuss the subject of the placard with other members of that community. Each community will serve as a messaging board where Ava can post her thoughts and interact with fellow users who may do likewise. While Gather+ will furnish one default group for every placard, Ava can create her own groups in any given hub as well. This gives Ava the freedom to discuss more than just the pre-populated placards and post links to other books, stories, or podcasts that may interest fellow Gather+ users.

Now let us say that a man named Ben and his wife Lauren have been homeschooling their three elementary aged children during the quarantine period. They have not been able to meet with their friends for drinks or have any downtime from parenting. He and his wife are on edge, and no amount of streaming shows or movies online can distract them from the inexorable tension of quarantine.

Ben and Lauren are introduced to Gather+ and are drawn to the game category. When they click on the icon, they see that it is different from the other three hubs. Instead of placards, it highlights links to the best online games to play during quarantine, like Codenames.net, and more. It also gives a guide on hosting virtual game nights. Ben and Lauren finally have a way of connecting with peers their own age.

Teen Ava, along with young parents Ben and Lauren, will also notice a menu link that leads them to a section of Gather+ called "Wellspace". The Wellspace section will offer resources via links and articles on staying healthy and upbeat during the pandemic, and only the most relevant news regarding the same.

High-level Functional Requirements

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1. The Gather+ site shall permit each user to create an account.
   - Credentials for the account will consist of a username and password.
   - Account attributes will include a photographic/avatar icon to be used throughout the site when the user is logged in.
   - Essential purpose of the account is to permit access to media and groups.
   - Data associated to an individual user shall be saved via his or her account.

2. The Gather+ site shall provide users access to multimedia content.
   - Books and podcasts will be available via embedded e-readers.
   - News articles shall be sourced from external news websites/applications.
   - Links to, and guidelines for, online game websites will be listed.

3. The Gather+ site will render messaging boards for topic-related discussions, known as "communities".
   - Each media item will be coupled with a default community.
   - Users will be able to create communities on topics of their choice within each media section.
   - Communities will enable users to create typed posts and interact with other users.

4. The Gather+ site shall present information concerning the COVID-19 pandemic and wellness.
   - Resources about the pandemic will be featured by way of articles and links to external websites.
   - A messaging board, called a forum, shall be made available in this section for questions related to the pandemic and wellness.

List of Non-functional Requirements

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For FunkyTech's social media website: Gather+, our minimal performance requirements will be:

- The Gather+ website will allow up to 20 users posting on a single community board at a time.

- The Gather+ website will be extremely easy to use and learning how to navigate the website should take less than 30 minutes on average.

- For security, we will make use of a b-crypt hash function for login information. It will hide users' personal account information from potential threats.

- Expected load time for each page will be under three seconds, even if internet connection is below average.

- All data will be stored in SQL tables hosted by the team's account on the LAMP server.

- The browsers that the Gather+ website will be tested on are Firefox, Chrome, Microsoft EDGE, and Safari.

- The time it will take to refresh the page after a crash will be under five seconds.

High-level System Architecture

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Front-End: FunkyTech will utilize markup language HTML5; along with CSS3, Bootstrap 4, PHP, SQL, jQuery, and JavaScript for the team website and our web application, Gather+.

Back-End: FunkyTech will employ MySQL and phpMyAdmin for our database needs. The database will allow us to manage user information and the different community boards. JavaScript will be used for frontend and backend development. The backend will be supported with Elgg. Elgg is an API built to aid with social media web applications. FunkyTech will use the team account on the LAMP server to host our website.

Layout: We will use Bootstrap 4 components to aid in the frontend design. It will provide the structure, and responsiveness, for how we would like to display information on our websites. In addition, Bootstrap 4 will help make Gather+ more interactive and appealing for users.

Browser-Support: Our website will be supported on the latest versions of Chrome, Firefox, Microsoft EDGE, and Safari.

External Code/Licenses:

Code	License
Bootstrap 4 (V4.0.0)	https://github.com/twbs/bootstrap/blob/v4.0.0/LICENSE
Elgg	http://learn.elgg.org/en/stable/intro/license.html

Team Roles

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Milestone 1 Roles:

Michael Resendes: Product Owner, Scribe for "Executive Summary" and "Data Definition"

Brent Werne: Back-End Developer, Scribe for "High-Level System Architecture" and "Non-Functional Requirments"

Betsy Kuruvila: Front-End Developer, Scribe for "High-Level Functional Requirements" and "Overview, scenarios and use cases"

Michael Simon: Scrum Master, Scribe for "Competitive Analysis"

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Check List

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A.) Team decided on basic means of communications
- DONE (6/10/20): WhatsApp Phone Calls, Google Hangouts

B.) Team found a time slot to meet outside of the class
- DONE (6/10/20): Tuesdays, Thursdays at 8PM Eastern

C.) Front and back end team leads chosen
- DONE (6/10/20):
- Brent: Back-End
- Betsy: Front End

D.) GitHub master chosen
- DONE (6/10/20): Brent

E.) Team ready and able to use the chosen back and front-end frameworks
- DONE (6/14/2020):
- Front-End: Bootstrap, jQuery, JavaScript
- Back-End: Elgg, SQL, PHP

F.) Skills of each team member defined and known to all
- DONE (6/10/2020)

G.) Team lead ensured that all team members read the final M1 and agree/understand it before submission
- DONE (6/16/2020)