CEN 4010 Principles of Software Engineering

Fall 2021

Milestone 3: More Detailed Requirements, Architecture, and a

Vertical Software Prototype

Team G6 - Socialbuzz

Team Number: 6

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History Table:

09/25/2021	Initial Proposal
10/25/2021	Milestone 3 update

Vertical prototype: Features and Functionalities

- Fully implemented login, sign up and logout system.
- (In progress) Ability to post messages.

Executive Summary

Currently, it is very important for people to stay informed about and discuss the most relevant events in their community, or simply to be able to connect with people. Our website, Socialbuzz, will allow both teens and adults of a wide variety of ages to post, discuss and report what is happening around their community. It will help strengthen relationships, recommend social events, promote small and struggling businesses, and provide social and mental health programs to people that are suffering from stress, anxiety, or any other challenges due to COVID restrictions, whether it be social distancing, quarantine, losing jobs, family, etc. Not only will the website provide these resources and updates, but users themselves can also contribute with their own stories, businesses, and findings. Others will be able to recommend posts to be featured on the front page. We aim to provide easily accessible and quick, to the point information and useful articles and resources for health, business, entertainment, and other topics. As such, the scope of this website is not necessarily limited to Covid. Although easily accessible Covid news, updates, and supporting information is one of our big priorities, Socialbuzz aims to be a socialization website where users can share a wide variety of topics and allow people to connect regardless of distance and restrictions.

Competitive Analysis

This analysis focused on five main features: Design, Communication, Content, Usability, Recommendations.

We have chosen 4 popular social websites and applications similar to Socialbuzz as the basis of our analysis. they were selected for their focus on local events and social networking. Below we have ranked them against Socialbuzz using a number scale (1-5) for each of the 5 features stated above:

	Socialbuzz	Twitter	Facebook	Nextdoor	Neighbors
Design	5	3	4	5	3
Communication	4	5	5	2	3
Content	4	4	4	5	3
Usability	4	5	5	5	2
Recommendations	5	2	2	4	2
Mean	4.4	3.8	4	4.2	2.2

- **Socialbuzz (4.4):**

  Socialbuzz has a simplistic homepage with a simple color scheme. Socialbuzz uses a search bar that uses zip code look up so you can look for events and news that is near your location. As you use Socialbuzz more it will start to recommend events in your area. Social is made with users in different age groups in mind. The content on the site is submitted by both users and staff.

  Twitter (3.8): https://twitter.com

  Twitter has a very useful feature. Where you can check local hashtags and trends, using twitter's search bar. Twitter being a large social media website makes it a good place to check for local businesses and larger events in your area. However, it can be very disorganized.

- **Facebook (4):** https://Facebook.com

  Facebook is another big social media website. Using Facebook's search function, you can look at local businesses for upcoming events. Facebook also has an event tab which can look at all events in the area as well as see how many people are going. Unfortunately, user privacy has been out into question

- **Nextdoor (4.2):** https://nextdoor.com/

  Nextdoor is akin to modern day newspaper classifieds. Nextdoor lets its users mark their exact location, Nextdoor will show local news, events, local classifieds, covid events. Nextdoor makes its users verify their identity to use the app.

- **Neighbors (2.2):** https://ring.com/neighbors

  Neighbors is an app made by the ring doorbell company. Neighbors was made with neighborhood security in mind. Neighbors lets users upload events like fires, crimes, and lost pets. Neighbors is useful to keep update on local safety issues for the users with a social media aspect added. However, it's uses are more specialized than the other websites.

- **Planned Advantage:**

  Socialbuzz is useful for users of a wide range of ages. Socialbuzz will give it users a breakdown of everything happening in their immediate area. Socialbuzz will give its users all this information in a simple and clean user space as to not overwhelm them. Socialbuzz will make it easy to communicate to other users like social media giants, but in the local space. Socialbuzz does not ask for personal information to sign up and is not affiliated with any party.

Data Definition

Name	Type	Usage	Meaning
Accessibility	Data	Use case scenarios	How accessible the website is for disabled individuals
Post	Data	Use case scenarios	Messages sent by individual users on their page
Upvote	Data	Use case scenarios	users can upvote users and buzz posts they like
Buzz posts	Data	Use case scenarios	News feed provided the front page
User feed	Data	Use case scenarios	Section where users can view posts by other users they follow as well as popular posts
Search	Service	Site user service	Allow users to easily find what they are looking for by searching specific terms or tags
Socialbuzz	Domain name	Use case scenarios	Domain name that all the webpages of the site are under

Overview, scenarios and use cases

The internet has revolutionized communication, to the point that it has become the most important way of communication by young people, adults, and elderly. Websites have become the most powerful tool to interact with other people and stay informed of the events and main news of the community converting a user as commentators, editors, creators, and publicists.

> **Use case 1:** User wants to share an interesting article they've read regarding health and safety.

> **Use case 2:** Another user finds the post useful and wishes to spread awareness on it. User can upvote the post which will increase its likelihood of showing up on the front page.

Initial list of high-level functional requirements

1. - Front page populated with news as well as user posts that will be consistently updated.
   - Simple search functionality for key words and tags.
   - Users page where a user's posts and photos are posted and can be viewed. Users can add searchable tags to their posts as well.
   - Upvote system for user posts. The highest upvoted posts will be featured on the front page based on simple algorithms

2. - Events page featuring recommendations for nearby areas to the user.
   - Users can follow other users to have their posts appear on their user feed.

3. - Reply system to posts and buzz posts (news feed posts).

List of non-functional requirements

- Compatibility: Compatible with any modern electronic device that supports web browsers.
- Accessibility: The UI will be kept simple and easily approachable for disabled users, and voice read functionality will be implemented for blind users.
- Maintainability: Front page is maintained by staff, and users page can be freely handled by users.
- Security: the website will not ask for any personal information from the user such as phone numbers or identification and will operate on a secure username and password system.

High-level system architecture

1) Languages: HTML, CSS, JavaScript, php

Database: MySQL, phpMyAdmin

Compatible Navigators: Chrome, Microsoft Edge, Firefox, and other web browsers

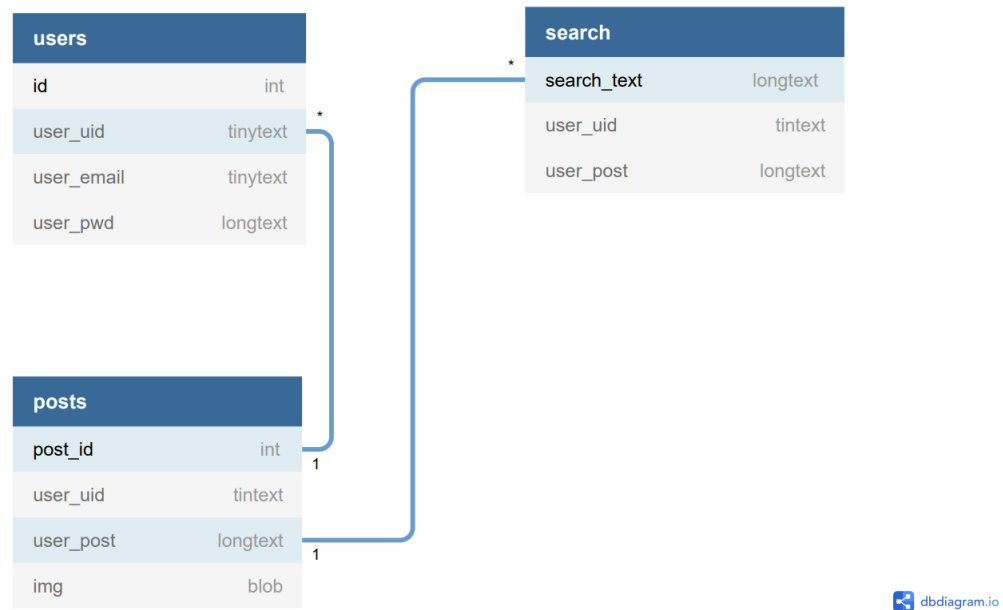2) DB organization: MySQL database through phpMyAdmin

Tables:

- Users: id, users_id, users_email, users_password
- Posts: id, posts_id, posts_date, posts_message, posts_img
- Search: search_term, posts_id, post_message

3) Media will not be stored in the database and will be directly accessed from users' file systems.

4) Simple search functionality that will search key words from post from the post_message term.

5) APIs: Currently undecided.

High-level UML Diagrams

Risks

1) Skill risk: Team is not very experienced using php and MySQL. We plan to resolve this by prioritizing working on backend aspects of the project first.
2) Schedule risk: We are unsure how much we'll be able implement from the features that we initially intended. We plan to work around this by focusing on one aspect at a time.

Team

	Students	Roles
1	Rabih El Khatib	Team Leader
2	Christopher Valera	Scrum Master
3	Flor Aguirre Garcia	Development Team
4	Tyler Alber	Development Team
5	Kenny Demosthene	Development Team