

Software Engineering CSC648-848-05 Spring 2023

Piqued

Team 5

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1. Executive Summary

Have you ever wanted a platform where you can express yourself while sharing common interests? Well look no further! Introducing, Piqued! Piqued is the ultimate blogging website that allows you to express yourself and your interests freely online while connecting with your friends, families, your friendly neighbors, and even make new friends. It's no ordinary blogging site because you can socialize and interact with your group of friends who you are connected with. It's already hard enough to be able to talk to someone about your interests that you want to share but the people around you are not listening! This site is not only for extroverted individuals who do not shy away from reflecting on their activities, this is a great site for introverted individuals as well because you can share your daily Pique without having to speak it out loud - some of us know the nerve wrecking feeling. While blogging your interests online, you can find numerous individuals who share the same interests as you! It's important to be able to share without being scrutinized, so this platform will create a safe space for all individuals to share what they're into. Users can also find things they may be interested in and want to look more into it, so Piqued is a great platform where you can find details of someone else's experience so you can decide if you want to take that trip, or try cooking new food, or finding the easiest way to manage your calendar - who knows, maybe you'll find someone else's interest that may be intriguing to you but you didn't know it! You connect and build a community where you can discuss commonalities.

Piqued allows for you to share your favorite interests in full detail. For example, you traveled to Spain where you visited many places and tried new foods, and when your friends ask you about it, you can say "hey, I'm glad I "Piqued" your interest, why don't you check out my recent blog post where I shared my itinerary, photos, and my experience!". You can share a plethora of interests such as travels you've gone on, food you've tried or cooked yourself, and even life hacks - who wouldn't love a quick tip! You can explore other people's interests and may stumble upon a blog that you might want to add onto your bucket list then blog about it from your perspective. Most of all, Piqued allows you to connect to other like minded individuals and create a space where you can share things that you think are important. Make it your world whether you're sharing with the world or blogging to keep this as an online journal where you can come back to and just reminisce on your experience or make it a place where you can explore other people's interests so that you can add it to your "must try" list. Whatever it is, you can use the platform however you want to.

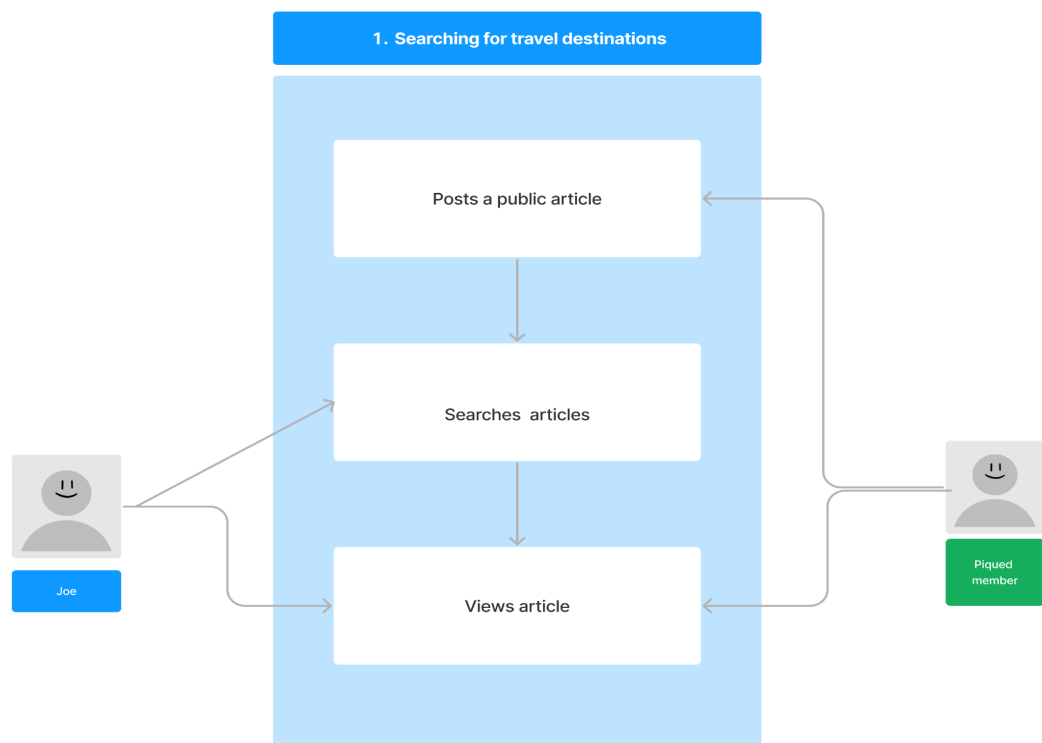
There are several blogging sites, but is there one like Piqued where you can blog to share with your connections and interact with them? What's unique about this platform is that it allows users to socialize, talk to each other about interests and share each other's experiences, and your connections can react to your daily Pique! What's also special about this site is it creates a community where users can find individuals who share the same interests and make new connections across the country. You'll never know if you meet your next soulmate, right? So, have I Piqued your interest?

2. Main Use Cases

2.1. Searching for Travel Destinations

Actors: General User: can search and view public blog posts

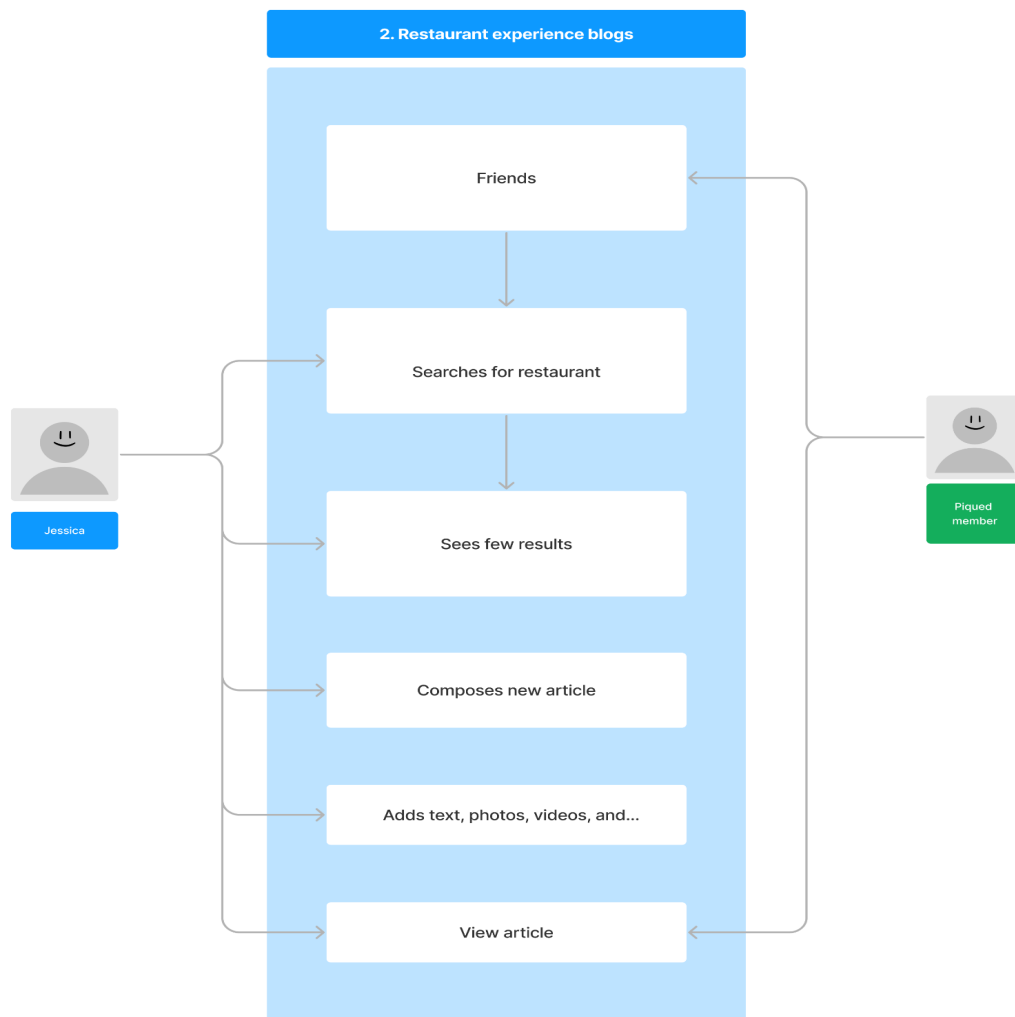
Description: Joe is a young adult planning a trip to Los Angeles with his friends, but doesn't know what are some good places to visit as this will be his first time traveling there. While he has never used the platform before, he uses the internet and social media on a daily basis, so he is familiar with technology but does not like registering on accounts due to growing data privacy concerns. He quickly learns how to use the search functionality and performs a search for "places to visit in Los Angeles". This brings up a list of blogs from other users that have made posts about his search query and their recommendations on places to check out. He quickly scans through the listing, finds one that interests him, and is able to learn more about places to check out while in the city.



2.2. Restaurant Experience Blogs

Actors: Registered User: has an account and can post private/public blogs.

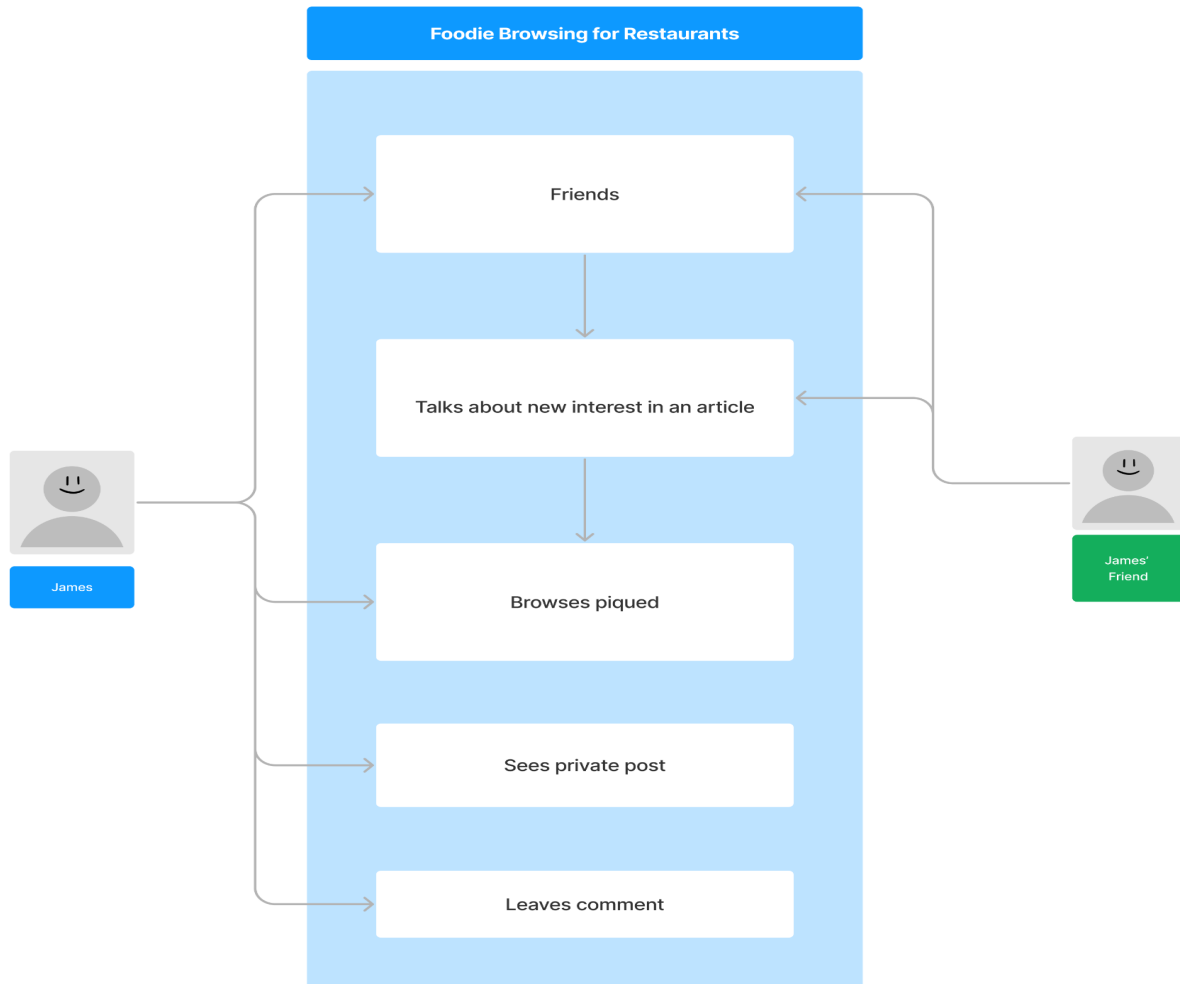
Description: Jessica works as a food journalist for a local news company. She has no trouble writing and publishing review articles online. In her free time, she also likes to use Piqued to write blogs and share with her thousands of followers about the restaurants she has visited. Recently, Jessica came across a restaurant that recently opened and wasn't getting much traction just yet on Piqued, despite the food being in her opinion top tier. In an effort to help spread awareness, she decides to log on to her Piqued account to create a new public post and begin drafting a new page. She also adds photos and videos of some of the menu options to her post. Once she is done, she can click a button to publish the post publicly, and other users, both signed-in and signed-out, can view her blog and decide whether or not to check out the new restaurant.



2.3. Foodie Browsing for Restaurants

Actors: Registered User: can browse and view private blog posts.

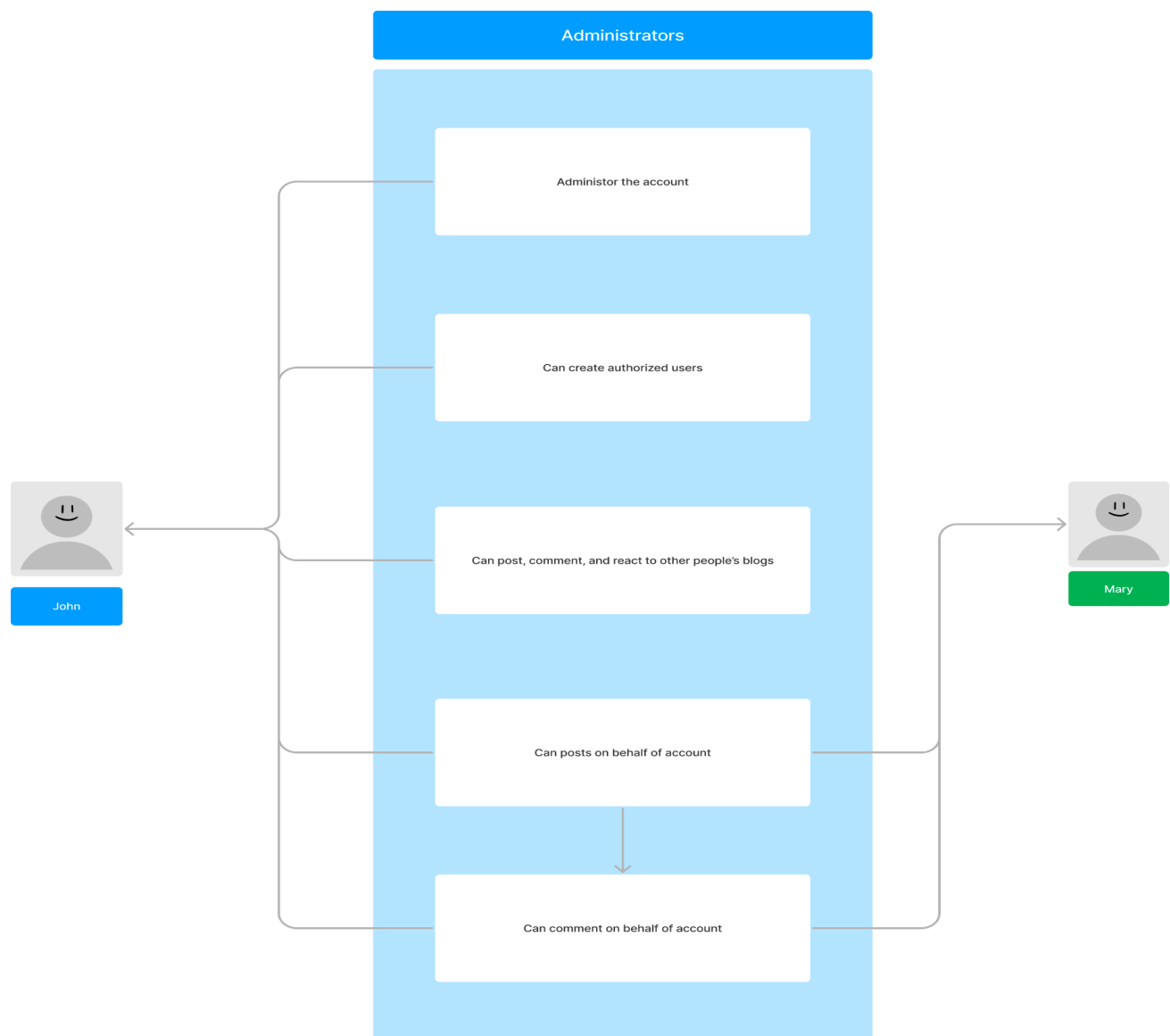
Description: James has recently moved to San Francisco and loves to try new restaurants whenever he has the chance to. To help him discover local hidden gems in the city, James uses Piqued to get dining recommendations from other Piqued foodies. As a registered user, James can: create blog posts, follow other Piqued users, and access private blogs written by friends, in addition to general user capabilities. While browsing the site in his spare time, he sees a recent article about a new restaurant in town that was posted by another SF foodie that he is friends with and gets frequent private food recommendations from. After trying out the new restaurant, James goes back to the blog and thanks his friend for the great recommendation.



2.4. Administrators

Actors: Administrator users: manage and maintain accounts. Registered user: has the ability to post and comment on blogs.

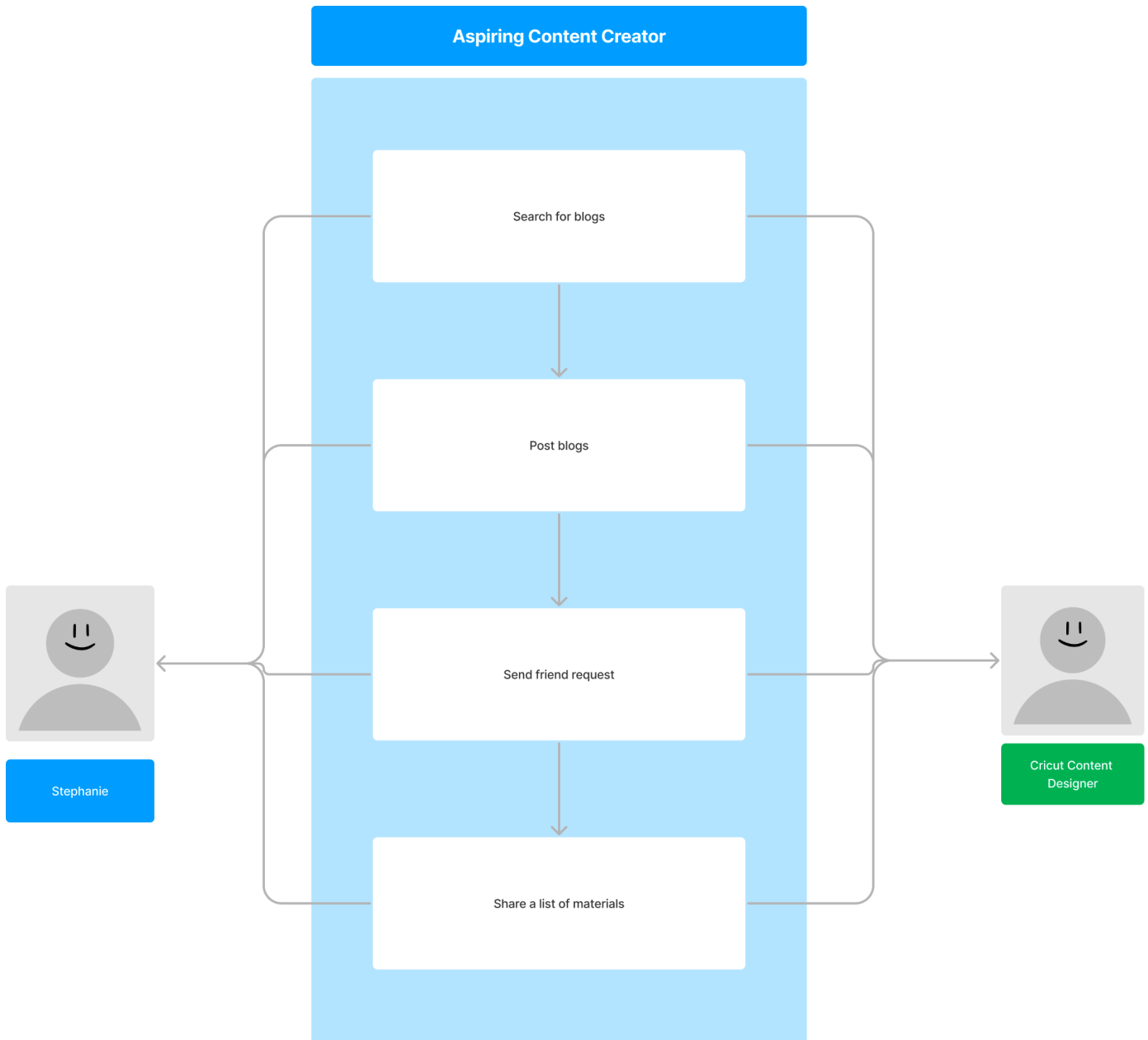
Description: John is the administrator of his business account on Piqued. He has the ability to manage the account, create authorized users, give access to authorized users to post on his behalf, and he can monitor what's going on with his account. He can also post, comment, react, and chat on the account as well. John can authorize one of his employees, Mary, who is also a registered user of Piqued to post and comment on his behalf using his account when he is busy working on other things, but only to the account's blog. With an extra user on his account, John is able to have contents posted on his account every week.



2.5. Aspiring Content Creator

Actors: General User: can search and view public blog posts for inspirations.

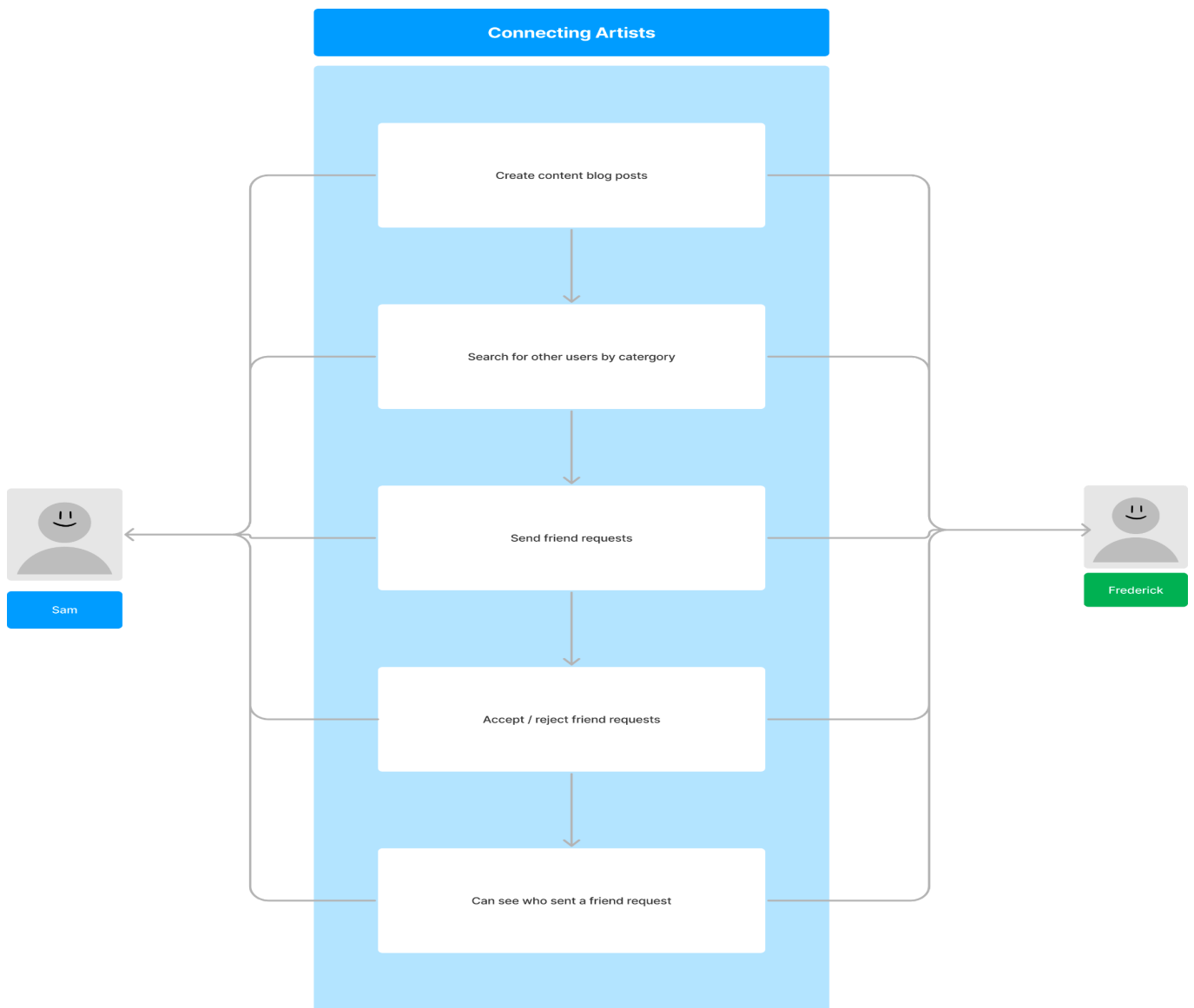
Description: Stephanie loves to create things using her Cricut machine but seems to only think of a few ways to make designs using her vinyls. To get some inspiration, she hops on Piqued website, logs in, and searches for Cricut designs. Lo and behold, she finds numerous blog posts from various Cricut content designers who post about their tips and tricks for creating new designs as well as provide a list of materials needed.



2.6. Connecting Artists

Actors: Registered User: has an account and can connect to other users by sending friend requests.

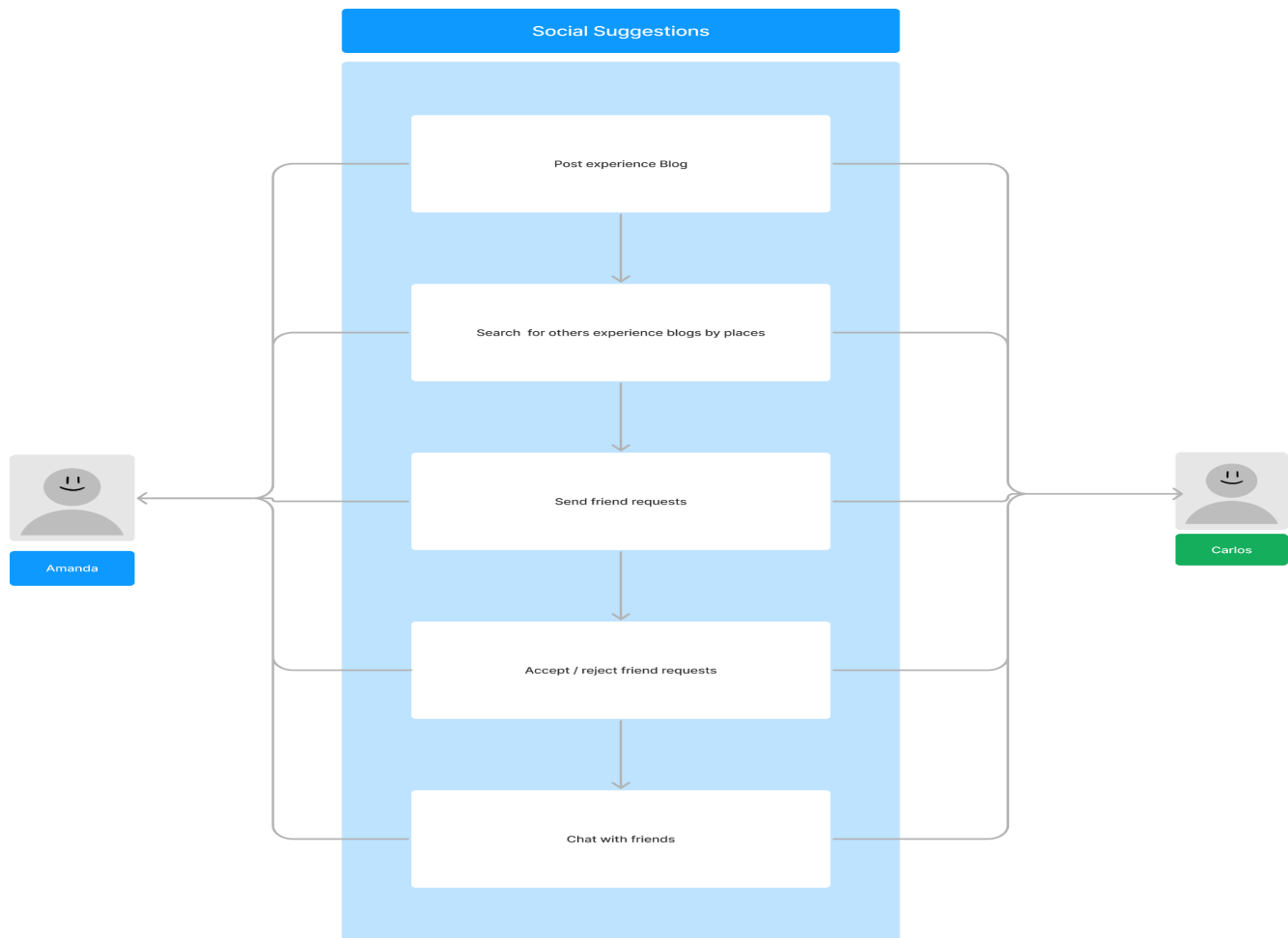
Description: Sam is a registered user and is passionate about making macaroni art. While browsing through Piqued for other art inspiration, she comes across an account of another user, Frederick, who also shares the same passion. Eager to find more friends with an interest in macaroni art, Sam sends a friend request to the other user. Frederick checks and sees that he has a friend request and is able to accept or reject Sam's request, which he accepts.



2.7. Social Suggestions

Actors: Registered User: has an account and can see friends' posts.

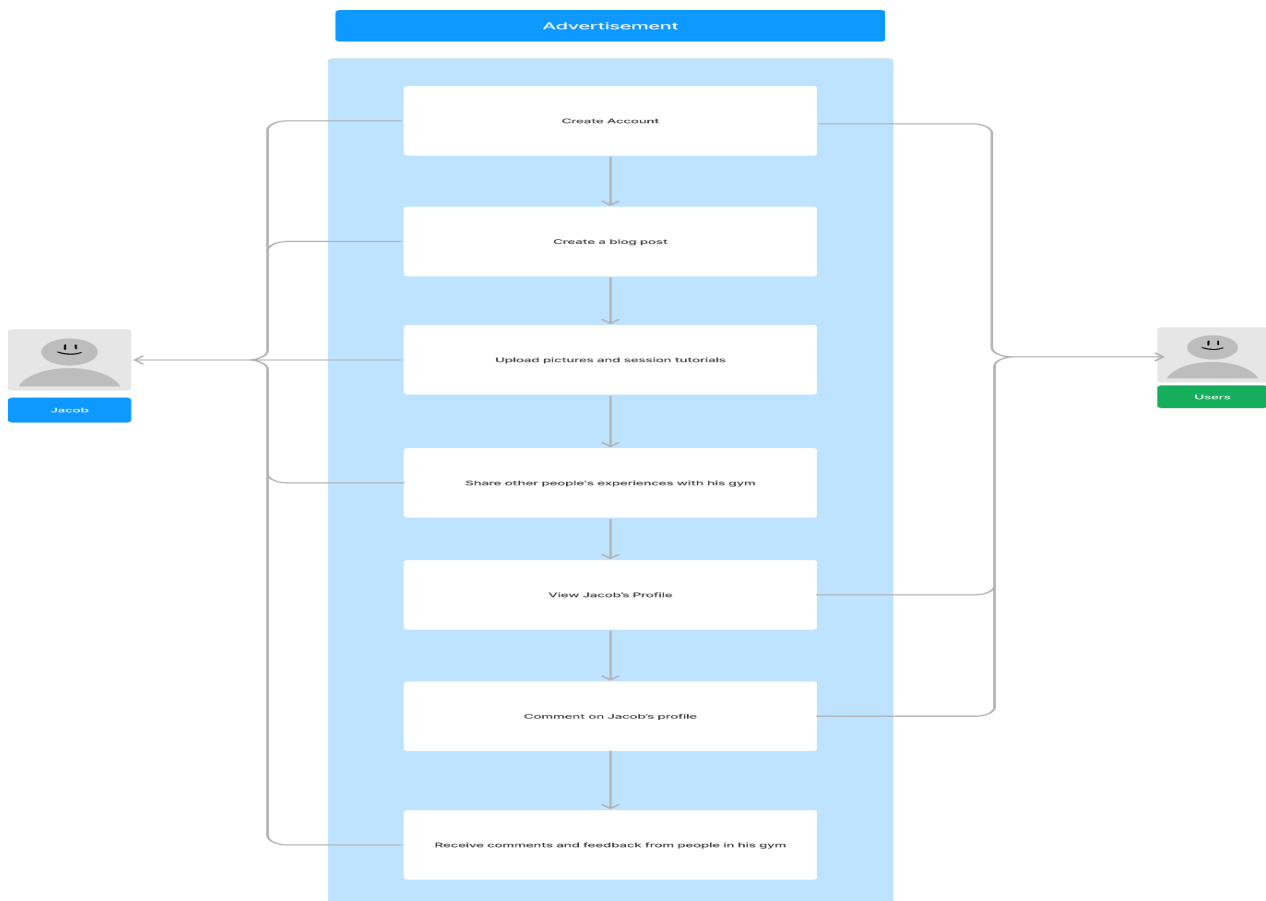
Description: Amanda and Carlos are friends from the same hometown. Amanda has been traveling the world and has visited New York, Florida, Italy, and Croatia, whereas Carlos has not traveled much and has never been to Italy before. Carlos is planning to travel to Italy and wants to seek Amanda's advice on where to go, what to eat, and how to spend his time in Italy. Unfortunately, he cannot get in touch with Amanda, and he is lost and not having a good experience in Italy. If Carlos had registered with the Piqued web browser, he would be able to see all of Amanda's experience and suggestions in Italy without having to come in contact with her. Through Piqued, Carlos could access Amanda's travel experiences, recommendations, and insights on Italy. He could find information about the best places to eat, the best things to do, and the most interesting places to visit. This would have made his experience in Italy much better, as he could have followed Amanda's suggestions and discovered the best of Italy without having to go through the trouble of trying to reach out to her.



2.8. Advertisement

Actors: Registered User: has an account and can post private/public blogs to promote his business.

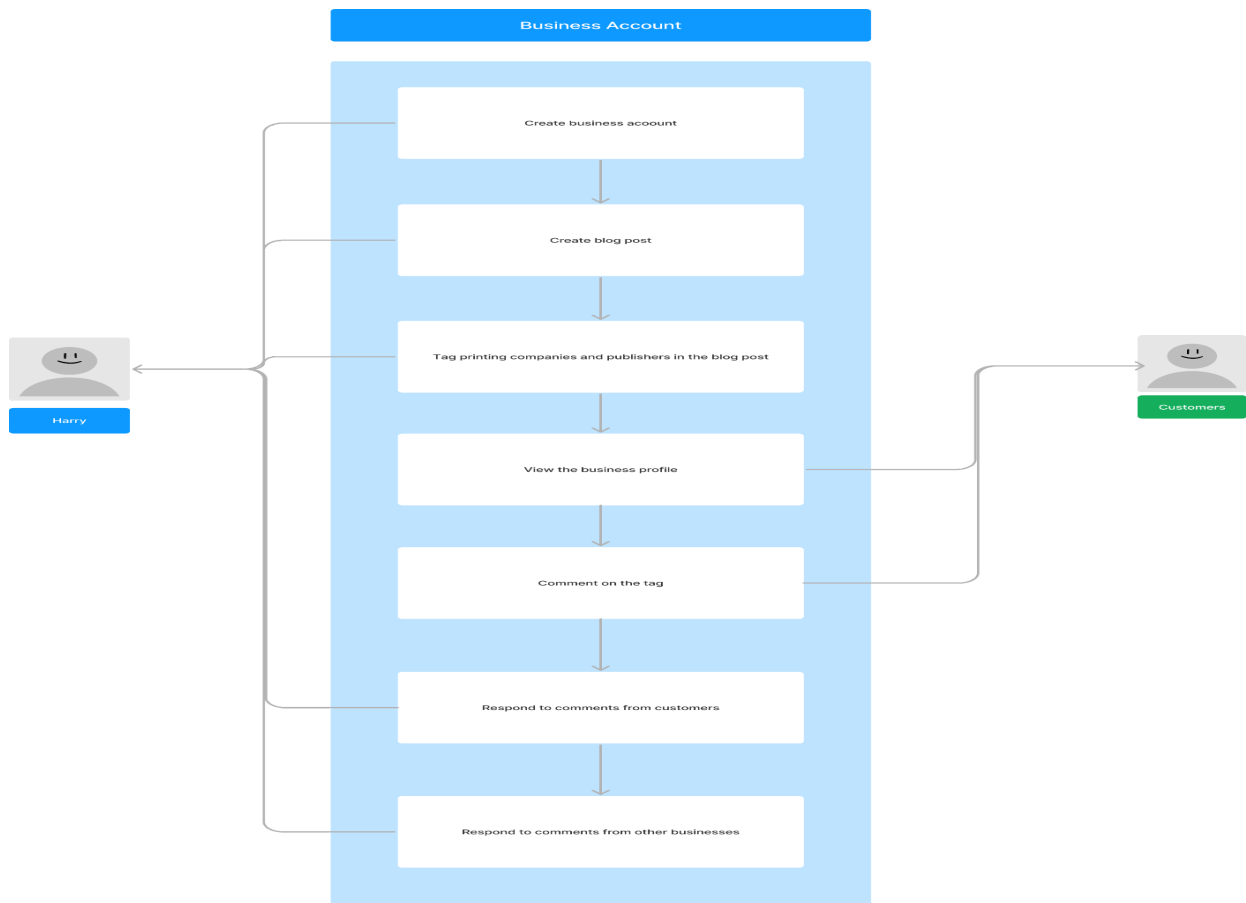
Description: Jacob is a gym instructor based in New York City, and he wants to showcase his skills and abilities to people all around the world. To achieve this, he learns about a new app called Piqued, which is a platform that allows users to blog about their experiences, share their ideas and knowledge, search for people's suggestions, and perform many more activities. After creating a new account on Piqued, Jacob uploads pictures and session tutorials on the website, along with a summary of how he helps people get into their best physical shape. Additionally, he shares other people's experiences with his gym, which helps him reach out to more people and attract them to join his gym. The app also allows people from Jacob's gym to comment on his blog and share their perspectives about how he trains people. This feedback can help Jacob improve his services and provide better training to his clients. Using Piqued to showcase his skills and abilities as a gym instructor allows Jacob to reach a wider audience, attract more people to his gym, and receive valuable feedback from his clients. It is an effective way to promote his business online and build a community of people who are interested in fitness and well-being.



2.9. Business Account

Actors: Registered User: has an account and can post private/public blogs to promote his business.

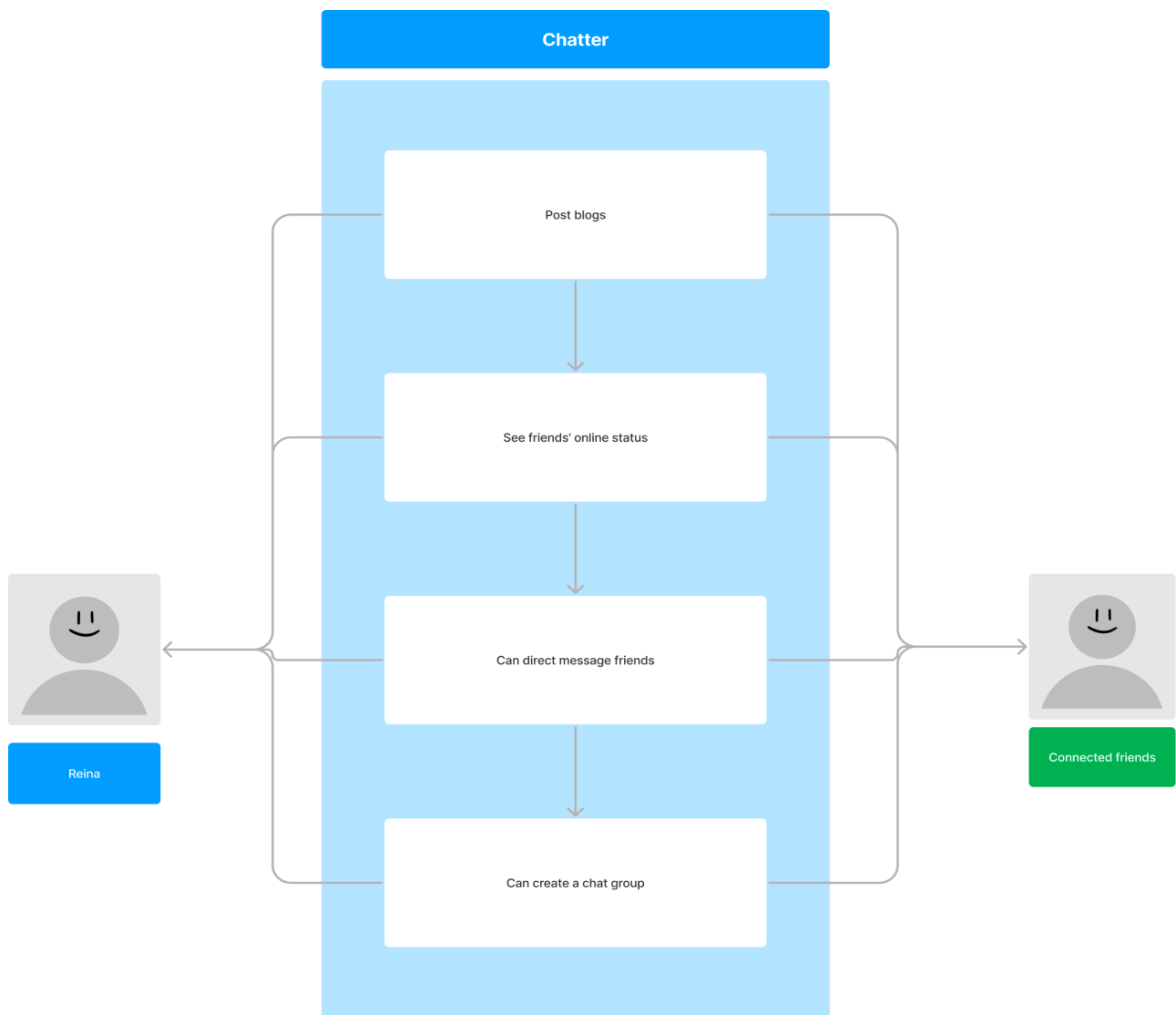
Description: Harry runs a paper company and he uses a marketing tool called Piqued to promote his business online. Piqued is a platform that allows Harry to create and share blog posts about his business, which can reach a wider audience on the internet. In his blog posts, Harry updates people on how he works with some good printing companies and publishers. He can also tag these businesses in his blog posts, which helps people see how these businesses are connected with each other. This allows Harry to broadcast his business to a wider audience and showcase the partnerships he has established. Furthermore, Piqued allows Harry to see comments from people all around the world who are interested in his business. This means that Harry can interact with potential customers and respond to their questions or concerns. Additionally, Piqued also allows Harry to see comments from businesses who are interested in working with him. This can help Harry expand his network and potentially establish new partnerships in the industry.



2.10. Chatter

Actors: Registered User: has an account and can chat with connected friends privately.

Description: Reina loves social media, and one thing she loves the most about social media is the ability to connect with her friends and family online as well as interact with them. Reina spends a lot of time blogging about her interests and telling her friends about it. Reina spends at least 4 days out of her week blogging about her interesting life, whether it's a new food that she tried, a new place she discovered in her hometown, or a new restaurant that just opened up. Once she posts a blog, she likes to reach out to her friends to let them know what's new in her life and to encourage them to check out her blog. She loves interacting with them to get their opinion on things and to hear that she had Piqued their interests.



3. List of Main Data Items and Entities:

3.1. Data Description

- 3.1.1. General user: Individuals who do not have a registered account but can search and view public posts on the website. They can also view comments and reactions on public posts.
- 3.1.2. Registered user: Individuals who can log into their account, create, and publish posts on the website. They have the ability to edit and delete their own posts and comments, manage their account information, and view site statistics.
- 3.1.3. Site Moderators: Administrators who manage the frontend and backend of the website.
- 3.1.4. Posts/Articles: Main content pieces on the website, written by users/authors. They contain text, images, and/or videos and can be categorized and tagged.
- 3.1.5. Comments: Responses to posts made by users on the website.
- 3.1.6. Reactions: Emotional responses on posts.
- 3.1.7. Company's "about us" page: Information about each of the developers of the website.
- 3.1.8. Company's description: Information about the website and its purpose.
- 3.1.9. Categories: Groupings of posts based on topic or theme
- 3.1.10. Search bar: A search function that allows users to search blogs.
- 3.1.11. Images: Visual content that can be used to enhance posts and improve engagement.
- 3.1.12. Advertising Banners: Display ads that generate revenue for the website.
- 3.1.13. Social Media Links: Links to the website's social media profiles.
- 3.1.14. Website logo: Display the company's logo on the website to represent the company
- 3.1.15. Notification: Represents a notification to be sent to a user.
- 3.1.16. Navigation bar: A section where links are grouped together for easy navigation.
- 3.1.17. Profile link: A link where the user can click on to go to their account page to edit their account.
- 3.1.18. Home page link: A link where the users can navigate back to the main domain.

4. Initial List of Functional Requirements

4.1. All Users

- 4.1.1. All users shall be able to view the website's information
- 4.1.2. All users shall be able to contact the site moderators with questions
- 4.1.3. All users shall be able to view the privacy policy
- 4.1.4. All users shall be able to view the terms and conditions

4.2. Guest Users

- 4.2.1. Guest users shall be able to create an account
- 4.2.2. Guest users shall be able to use a unique username to create an account
- 4.2.3. Guest users shall be able to only view public posts
- 4.2.4. Guest users shall be able to view the contents of public posts
- 4.2.5. Guest users shall be able to view comments on public posts
- 4.2.6. Guest users shall be able to view reactions on public posts
- 4.2.7. Guest users shall be able to view a profile's public information
- 4.2.8. Guest users shall be able to search for public posts
- 4.2.9. Guest users shall be able to discover other public users

4.3. Registered Users

- 4.3.1. Registered users shall be able to log in
- 4.3.2. Registered users shall be able to log out
- 4.3.3. Registered users shall be able to sign in with both their email and username.
- 4.3.4. Registered users shall be able to request to reset a new password if they forget it
- 4.3.5. Registered users shall be able to retrieve their username if they forget it
- 4.3.6. Registered users shall be able to add a profile picture
- 4.3.7. Registered users shall be able to customize profile using the standard format template
- 4.3.8. Registered users shall be able to edit their profiles
- 4.3.9. Registered users shall be able to change their profile picture
- 4.3.10. Registered users shall be able to change their displayed username
- 4.3.11. Registered users shall be able to change their email address
- 4.3.12. Registered users shall be able to change their DOB
- 4.3.13. Registered users shall be able to change what information is displayed publicly to general users.
- 4.3.14. Registered users shall be able to add contact information
- 4.3.15. Registered users shall be able to make contact information private or public
- 4.3.16. Registered users shall be able to make their information private
- 4.3.17. Registered users shall be able to make some of their information private
- 4.3.18. Registered users shall be able to make some of their information public
- 4.3.19. Registered users shall be able to change their password
- 4.3.20. Registered users shall be able to search for friends by username or email
- 4.3.21. Registered users shall be able to see pending friend requests

- 4.3.22. Registered users shall be able to accept friend requests
- 4.3.23. Registered users shall be able to reject friend requests
- 4.3.24. Registered users shall be able to remove friends
- 4.3.25. Registered users shall be able to create blog posts.
- 4.3.26. Registered users shall be able to search for posts
- 4.3.27. Registered users shall be able to update their posts
- 4.3.28. Registered users shall be able to delete their posts
- 4.3.29. Registered users shall be able to disable comments for their posts
- 4.3.30. Registered users shall be able to add comments on post
- 4.3.31. Registered users shall be able to edit their own comments
- 4.3.32. Registered users shall be able to delete their own comments
- 4.3.33. Registered users shall be able to like/react to other people's comments
- 4.3.34. Registered users shall be able to view friends' posts
- 4.3.35. Registered users shall be able to comment on friends' posts
- 4.3.36. Registered users shall be able to react to friends' posts
- 4.3.37. Registered users shall be able to repost public posts
- 4.3.38. Registered users shall be able to send private messages.
- 4.3.39. Registered users shall be able to receive private messages.

4.4. Administrator Users

- 4.4.1. Administrator users shall be able to monitor their account
- 4.4.2. Administrator users shall be able to create authorized users on account
- 4.4.3. Administrator users shall be able to limit authorized users access on account

4.5. Site moderators

- 4.5.1. Site moderators shall be able to delete posts/articles
- 4.5.2. Site moderators shall be able to reinstate accounts
- 4.5.3. Site moderators shall be able to ban accounts
- 4.5.4. Site moderators shall be able to review accounts
- 4.5.5. Site moderators shall be able to temporarily block accounts for review
- 4.5.6. Site moderators shall be able to edit the layout of the platform
- 4.5.7. Site moderators shall be able to add additional features
- 4.5.8. Site moderators shall be able to change template layouts for profiles
- 4.5.9. Site moderators shall be able to remove spam accounts
- 4.5.10. Site moderators shall be able to answer users' questions and concerns
- 4.5.11. Site moderators shall be able to create an account
- 4.5.12. Site moderators shall be able to post on the platform's main page
- 4.5.13. Site moderators shall be able to make site announcements
- 4.5.14. Site moderators shall be able to update website
- 4.5.15. Site moderators shall be able to temporarily suspend the website for maintenance

5. List of Non-Functional Requirements

5.1. Performance:

- 5.1.1. The website should be available 24/7 with a minimum of downtime for maintenance and updates.
- 5.1.2. Scalability: The website should be able to handle a large number of users and posts without slowing down or crashing.

5.2. Security:

- 5.2.1. Passwords must be encrypted in the database.
- 5.2.2. Each account should have a unique email.
- 5.2.3. Each account should have a unique username.
- 5.2.4. Logged in users must stay logged in while navigating unless they log out.

5.3. Legal:

- 5.3.1. To complete registration, users must accept T&C.
- 5.3.2. Privacy Policy.

5.4. Compatibility:

- 5.4.1. The website should be compatible with a range of devices, browsers, and operating systems.
- 5.4.2. The UI should be responsive to all screen sizes and device form factors

5.5. Usability:

- 5.5.1. The website should be user-friendly, with a clear interface that is easy to navigate.

5.6. Marketing:

- 5.6.1. The website will have a logo to represent the company.
- 5.6.2. The website should have a description to explain what the website is about.

6. Competitive Analysis

Feature/Company	Medium	Tumblr	Twitter	Facebook	Blogger
Strengths	Easy to get started writing articles. Weekly user stories that staff recommend.	Wide net of starting topics to follow, Upcoming changes/feature/wip transparency. Easy to post. Diversity of content	Platform used for concise writing and sharing thoughts across the internet	Social media platform with the highest number of users than any other platforms, Post's word limit almost equal to 200 page book	Personal url for easy content sharing. Ability to generate passive income based on sharing interests/passion via AdSense
Weaknesses	3 free member only articles /mo. Only active on twitter + blog. Searching, No password/ easy to change email	Moderation against harmful speech, filtering, and sorting. Confusing layout (ie: 1 vs 2)	Limited characters used for each post(280 to be precise) To use advance features like editing or deleting posts users need to use paid version Users cannot link other social medias on posts	Weak protection for users data Accused of political manipulation and addiction of social media	Can only register with gmail (owned by alphabet). Lack of a community.
Pricing	\$5/mo or \$50/yr for membership(unlimited quality articles, no ads)	\$4.99/mo or \$39.99/yr for ad free	\$11/month or \$114.99/year for twitter blue Users can also use free service for limited	Not yet but will be coming in the future with a price range of \$11.99 a month on the web and \$14.99 a	N/A

			features.	month on iOS.	
Social Media	Blog , Facebook , Instagram , Twitter , Youtube	Blog , Twitter , Instagram , Facebook , Youtube	Instagram Twitter Facebook Youtube	Youtube Instagram	Blogger
Onboarding Experience	Short; only email, name, and at least 3 topics and then left to learn how to navigate site	Decent amount of steps to get started.	Easy to set up, choose among wide variety of topics interested in	Need an email account or phone number to create an account Few steps to get started using the platform	Account set up in 3 steps. No info/tips/guide on managing a website.

Feature	Medium	Tumblr	Twitter	Facebook	Blogger	Piqued
Search	+	+	+	+	-	+
Browse	+	+	+	+	-	+
Content Management	+	+	+	+	+	++
Social Group (ie: friends)	-	+	+	+	-	+
Private Messaging	-	+	+	+	-	+

7. High-level system architecture and technologies used

- Server Host: **Amazon Web Services**
- Server Operating System: **Ubuntu/Linux**
- Supported Browsers : **Safari, Chrome**
- Server Host: **AWS EC2**
- Web Server: **NGINX**
- Server-Side Language: **Java**
- Front-end Language: **HTML, CSS, JavaScript**
- Database: **MySQL**
- Additional Technologies:
 - Web Frameworks: **Svelte**
 - IDEs: **IntelliJ and VSCode**
 - Other Frameworks : **NodeJS**

8. Checklist:

- Team found a time slot to meet outside of the class
 - Done
- Github master chosen
 - Done
- Team decided and agreed together on using the listed SW tools and deployment server
 - Done
- Team ready and able to use the chosen back and front end frameworks and those who need to learn are working on learning and practicing
 - Done
- Team lead ensured that all team members read the final M1 and agree/ understand it before submission
 - Done
- Github organized as discussed in class (e.g. master branch, development branch, folder for milestone documents etc.)
 - Done

9. List of Team Contributions

Name	Duties	Contribution Score
Nishit	Set up AWS, set up our databases, wrote some use cases, table of contents, and competitive analysis	9
Gautami	Functional requirements, non-functional requirements, entities, and use cases	8
Joshua	Competitive analysis, functional requirements, and use case	6
Leo	Executive summary, title page, table of contents, use cases, functional requirements, document formatting, and entities.	9
Andy	Use cases, functional requirements, index page for the about us page, and set up Svelte	8