

SW ENGINEERING CSC 648/848 SUMMER 2018

Team 1

Fawbyr Project

Milestone 1

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Executive Summary

Mission statement

At its core Fawbyr is a multimedia sharing platform tailored for, and built by, students. The project seeks to provide students and content providers with a delightful interface to share and discover images for school, personal projects, or inspiration as they continue their scholastic journey.

What we do

Fawbyr allows students to search a wide variety of images approved by our trained staff while at the same time allowing content providers to rest easy knowing all attribution and licensing information is provided in an upfront and concise manner. Fawbyr utilizes the latest technology to provide easily accessible high definition images across mobile, tablet, and desktop devices. As a content provider, Fawbyr provides a slick UI that makes uploading, managing, and editing images a breeze. With download and sharing metrics, content providers can make informed decisions about their portfolio and future work. As an student, Fawbyr surfaces popular user centric images upfront on the homepage and allows you not only to perform targeted search, but also browse based on a set of well-defined categories. Filtering, download history, and contextual comments ensure users get the best possible experience when searching for new content. Our product is straightforward and simple to use making the user experience a pleasant one. Need an image of the pillars of creation nebula for your astronomy class? We got you. Need a picture of the Eiffel tower for your French class? *Oui* can do that too. Need a picture of a cute doggo to cheer you up because you just bombed your

CSC520 midterm? Look no further. Whether students are looking for images to exemplify their latest paper, or simply looking for that next amazing wallpaper as inspiration, Fawbyr has them covered.

Our Team

With over 25 years of experience in the education sector, our team consists of a group of highly skilled students who understand the needs of our core audience and can tailor the Fawbyr experience accordingly. As students, we understand that finding resources for projects can be a stressful experience and we aim to make it as quick and frictionless as possible.

Personas and Use Cases



Tom is a 28-year-old freelance photograph who loves to get outside and shoot, especially landscape photography. He has recently become interested in aerial photography through the book earth from above. He is really interested in getting footage from new perspectives that she could only dream about without a plane or a helicopter. His online search led him to

beautiful, landscape images. He wants to see more beautiful images of drone to decide if he should buy a drone or not and wants the best value. He needs to find more pictures and he is really excited about the future of drone technology. He is frustrated about confusing web application and uninspiring content, not enough visuals.



Ann is a 29-year-old Architect currently living in Brooklyn, NY. She is married but with no kids. She considers herself to have an impeccable eye for all things design and fine taste. She took photography class in college as a hobby and still shoots occasionally in the evening and on weekends. She is involved in a photo-trading group where fellow

Brooklyn-based photographers trade and share their most beautiful shots with each other for inspiration. She maintains a beautiful feed of photos on her social media and gets especially excited when her photos catch attention of other photographers. She wants to share fascinating quality photographs she has taken. She wants to be recognized for her work, be able to personalize the messaging on the photo she creates but she is not getting credit for photos she has taken.



Sarah is a 20-year-old student at San Francisco State University majoring in photography. She is single, lives in San Francisco with her parents and she is a freelance photographer. She loves taking photos and traveling to discover new places. She recently went on a three-week trip to Europe where she visited France, London, Dublin, Spain, Italy and she took so many pictures of each country she visited. She is a friendly person and always excited to meet new people. She likes hanging out with her friends and going to social event where he uses her photography skills to take photos of people. She is a computer nerd and owns a digital camera and MacBook Pro. She mostly uses her laptop to edit pictures. Sarah is a talented photographer and needs a web application where she could sign up for a free account to save her photos, share them on social media and let others use them for non-commercially. Sarah dreams of becoming a creator and creating her own business where she will help companies to create their brand through photography.

Uses Cases

1. Registered User

Larry is a student at San Francisco State University. He needs pictures for his project and his friend references him a web application called **Fawbyr**. He navigates to the web application and sees a search field bar. Then, he clicks on the search bar to browse pictures for his project. A lot of pictures appear and he likes some of them. But when he clicks on the image to download, a signup form shows up asking him to register for an account in order to download the pictures. Larry signs up for an account and downloads the pictures.

2. Guest User

Melissa is a student at Palo Alto high school. She loves puppies and during her free time, she likes looking at puppy pictures. She hears from a friend about the web application **Fawbyr**. She navigates to the web application and uses the search bar option to browse pictures of puppies. Melissa does not need to sign up for an account because she is just looking at puppy pictures.

3. Admin User

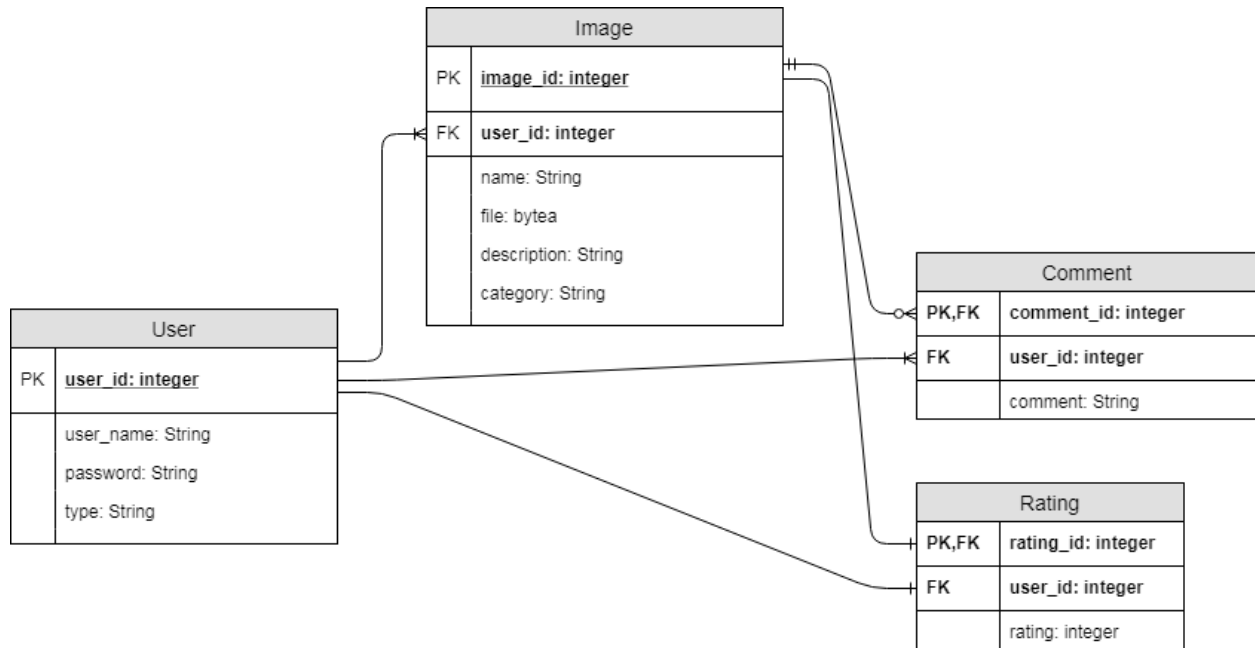
Paul has been hired as an administrator to keep **Fawbyr** clean and friendly for users. Tobi is a freelance photographer and he is looking for a web application where he could post and share his photos. His online search led him to **Fawbyr**. He navigates to the web application and immediately loves the User Interface. He signs up for an account so that he could post his photos and other people could

download them for free. Tobi needs an approval from Paul before posting his photos. Paul as an administrator of the web app, he verifies Tobi's registration and approves Tobi's photo because they are legal. Paul has the right to refuse contents if the photos are inappropriate.

4. Returning User

Cleo is a frequent visitor of the web application **Fawbyr**. She usually uses **Fawbyr** to browse for beautiful images. She sees photos on the web app that she loves and would like to like and leave comments. She notices that she can't like or leave comments on the images because she does have an account. She clicks on the sign up form to register for an account. Now that she is a member, she is able to like and leave comments on all the images that she loves.

Data Definitions



There shall be two main data terms to be addressed: User and Image

User:

1. Users have a ***user_name*** which shall serve as their display name as well as their name for logging in with the use of ***password***.
2. The ***type*** of user determines what they are allowed to do:
 - A user that is not logged in is a guest user by default and can only view images on the site.
 - A logged in user (normal user) can do everything a guest user can as well as upload and download images.
 - An administrator has the ability to do everything a normal user can do as well as remove images.

Image:

1. Images are uploaded by users.
2. An Image *file* shall only allow the following MIME types:
 - image/jpeg
 - image/png
3. When uploading an image, users shall be prompted to give:
 - A *name* for that image
 - A *description* for that image
 - A *category* list to narrow search results for other users

Comments/Ratings:

1. Users have the option to *comment* on images
2. Users have the option to give images a *rating*

Initial List of Functional Requirements

1. Search Bar

1.1 Users shall be able to search keywords with specific categories to limit the images presented to the user.

1.2 The search bar shall be at the same location on each page and keep track of what the user had searched to have consistent UI.

1.3 The search bar shall be usable for all users in order to search images.

2. Registering for Website

2.1 Users shall be able to sign up for an account on our website in order to keep track of their activity on the website and to interact with other users.

2.2 Their email and password shall be used for authentication and shall give them access to other functionalities on the website.

3. Uploading Images

3.1 Users shall be able to upload images that is connected to their username only if they have properly signed up with our website.

3.2 The uploading image form shall also allow users to set descriptions to their images.

4. Downloading Images

4.1 Users shall be able to download images without a protected watermark if they have properly signed up with our website.

5. Like/Commenting on Images

5.1 Users shall be able to comment on specific images to create a social networking platform.

5.2 There shall also be a like system for users to show their appreciation to specific photo posts.

6. Share on Social Media Platforms

6.1 Users shall be able to send a short URL to share their image post on social media platforms such as Facebook that shall be formatted as a preview link.

7. Admin Ability

7.1 Be able to take down any posts/pictures from public use/viewing, but still saved onto database.

7.2 Approve incoming images for appropriateness and proper usage of the website

Non-functional requirements:

1. Application shall be developed, tested and deployed using tools and servers approved by Class CTO and as agreed in M0 (some may be provided in the class, some may be chosen by the student team but all tools and servers have to be approved by class CTO).
2. Application shall be optimized for standard desktop/laptop browsers e.g. must render correctly on the two latest versions of all major browsers: Mozilla, Safari, Chrome.
3. Data shall be stored in the team's chosen database technology on the team's deployment server.
4. No more than 50 concurrent users shall be accessing the application at any time
5. Privacy of users shall be protected and all privacy policies will be appropriately communicated to the users.
6. The language used shall be English.
7. Application shall be very easy to use and intuitive.
8. Application shall render well on mobile devices (UI shall be responsive)
9. Google analytics shall be added
10. No e-mail clients shall be allowed
11. Pay functionality, if any (e.g. paying for goods and services) shall not be implemented nor simulated.
12. Site security: basic best practices shall be applied (as covered in the class)
13. Modern SE processes and practices shall be used as specified in the class, including collaborative and continuous SW development
14. The website shall prominently display the following exact text on all pages
"SFSU Software Engineering Project CSC 648-848, Summer 2018. For

Demonstration Only” at the top of the WWW page. (Important so as to not confuse this with a real application).

Competitive Analysis

Festure	Pinterest	Photobucket	Fawbyr
Clean UI	+	+	++
Easy to use Search Bar	+	+	+
Share button	+	+	+
Sign up/Sign in	+	+	++

KEY

+ Feature exists

++ Application excels at this feature

- Feature missing or ineffective

Once you go to *Pinterest*, you will find that you need to log in first, or you need to register first to use the site's features. Viewers cannot search for photos without registration or login, but our site has a clear interface for users to browse and search for all photos as the same information as registered users except for downloading photos. once a viewer finds a favorite photo, he or she must register if he or she wants to download it.

For *Photobuket*, there is no way to give the user a simple interface. When users use the search engine to browse the photos they searched out, both sides of the interface are advertisements, which will give users a very bad browsing experience. Our website does not have these problems. The interface of our website is clear and easy to use. It does not include ads that affect browsing.

High Level System Architecture

Server Host: Heroku-16

Operating System: Ubuntu 16.04

Database: PostgreSQL 10.4

Server-Side Language: Node.js

Additional Technologies:

- Web Framework: Express.js
- Web Analytics: Google Analytics
- Front-End: HTML/CSS/JavaScript/Bootstrap

Hardware Information:

- Server Memory (RAM): 512 MB

Supported Browsers:

- Chrome 67
- Firefox 60
- Safari 11

Team

Team member	Role
Flavy Tonfack	Team leader
Ben Clark	Front-end leader
Razmik Hakobyan	Back-end leader
Andy Lai	Front-end developer
Wenjun Zhu	Back-end developer
Yusen Ma	Back-end developer

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 and working on it: **DONE**
- Team lead ensured that all team members read the final M1 and agree/understand it before submission: **DONE**