PhotoStock Team 03

Milestone 1

6/26/2018

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Revision:0

Executive Summary:

PhotoStock is a user populated repository for photo storage, upload, download and editing that will serve as a storefront, connecting aspiring and professional photographers with the customers they need to drive a successful business. While our competitors focus on their searching and browsing functions PhotoStock will leverage newer layouts and display techniques that will push the art to the front page. PhotoStock is designed to get our members and content contributors the exposure they need to grow.

PhotoStock shall be an online art gallery for aspiring and professional photographers. Photographers from all walks of life can bring their art to our gallery to display their work. Our main page will display a rotating carousel of recent, trending and most popular photos uploaded to our site. PhotoStock shall incorporate all of the traditional search options available at our competitor sites. However, unlike our competitors who are focused on the "Fast-Food" experience where customers are directed quickly to the exact photo they are looking for PhotoStock offers a more immersive search environment. Our goal is to allow customers an opportunity to browse buffet style all of the best offerings of our artists. When a customer navigates to PhotoStock they will be greeted with a cornucopia of photos from all over the world which encompass all subjects and styles. The PhotoStock site layout will emphasize the art gallery theme allowing the customer to effortlessly move from one piece to the next and view each piece for as long as they want. Much like an art gallery PhotoStock will not only display the photos but inform about them with a placard that will tell the customer who the photographer was, where and when they took the picture and what edits have been made to the original.

From the main page customers have the option to search for photos based on artist name, location, subjects, styles, original content or edited photos. Our search shall return the closest approximation of the requested criteria. If there is no match our search shall return a gallery view of the closest approximation of the content the customer searched for.

PhotoStock shall operate as a store front, as such customers will be allowed to purchase copies for personal use and licenses for business use, on all of the public photos on the site. Our artists can choose between several packages to determine their exposure level with the most expensive packages getting them prime positioning on the carousels. PhotoStocks goal is to get artists exposure at a minimal cost therefore most of the operating costs we intend to offset using advertising and a small consignment fee added to each purchase. That way our artists can get their name out there without going bankrupt in the process.

Personas and Use Cases:

Personas

Daniel

	FACTS:
	23 year old - Lives in Los Angeles, CA - Is a part time photographer - Needs an audience for his picture collections - Loves computers, and photography
BEHAVIORS - Spends hours outside in nature, taking pictures - Enjoys compliments for his pictures - Has a big collection of different kinds of pictures - Uses a professional camera for taking pictures	**NEEDS AND GOALS** - Wants to be able to deliver his pictures to people. - Wants to be able to advertise his pictures - Wants to know if his pictures are good - Wants to share and allow his audience to download his pictures.

Ashely

	FACTS:
	- year old - Lives in San Francisco, CA - Goes to SF State - Has many friends - Needs a lot of pictures for her school projects
BEHAVIORS - Enjoys editing pictures - Likes to browse through pictures to find the best ones for her projects - Likes to use PhotoStock to save pictures to her favorites list and download them later. - Usually uses a PC to edit or save the pictures.	**NEEDS AND GOALS** - Would like to be able to browse for images easily - Wants to be able to download and use the pictures for her projects. - Wants to have the ability to edit and filter the pictures to make them look better according to her liking.

Use Cases

Case 1. Non registered user

Jade is a 65-year old grandmother, looking for photos of the New York city to send along with her letters to her grandchildren. She knows how to use a PC, but does not bother with that smartphone stuff. She looks for PhotoStock in an internet search and starts looking through the available options. She knows what kind of pictures she wants so she searches for "New York" in the search. She sees several pictures that she likes, so she decides to save them and is prompted to create an **account** to save them to her **favorites list**. Once she signs up for an **account**, she is then able to save the **photos** and download them when she needs to. In order to create and account Jade needs to enter a **username, password** and a valid **email** address**.**

Case 2. Registered user (Photographer)

Daniel is a 23-year-old photographer. He is really good with computers, he is very techie and enjoys photography. He has a good collection of "nature pictures" but he needs to have a good audience so that he can **advertise** and sell his pictures. He logs into PhotoStock and **uploads** all his new collection of pictures. He feels good about his target audience and hopes that someone will like and appreciate his pictures and possibly download them. Daniel can look at which of his pictures have been downloaded or looked at from his **dashboard**.

Case 3. Registered user (Looking for Pictures)

Ashely is a 19-year-old geography student. She needs pictures of a desert, mountains, waterfalls and landscapes for a project. She is good at using computers and searching and looking at websites. She is a **registered** user for PhotoStock, she has used other photo stock websites before as well. She particularly likes PhotoStock because it enables her to

add **filters** to the pictures before downloading them. She can save the pictures to her **favorites lists** and then come back to them anytime if she has an account. She likes using PhotoStock and thus she **searches** for all the pictures she needs for her class and **adds** them to her **favorites list**. Then she **edits** some of the pictures to her liking. She returns later during the day to download all the pictures she **saved** previously.

Case 4. Admin

Jeremy is the site **admin** and logs on to check how the site is doing. Jeremy cannot buy or sell as an admin. He has a few priorities to check on: user reports of two kinds: **photo uploads** that are inappropriate or suspicious, and **accounts** that have been flagged by other users as abusive or fraudulent. Jeremy references the Terms of Use to determine if a report is valid. He may do any of the following for each report: warn the user via their contact info that they have violated the Terms of Use, **delete** the **photos**, and/or **remove** the user account.

Data Definitions:

General Users

· Shall be able to access public photos without having to register in the system.

· Shall be able to browse public photos by categories, photo owners, and description.

· Shall be able to view the price, and description of the public photos.

· Shall be able to register to the system with a valid username and password.

Approved Users

· Shall be able to login to the system with their registered credentials.

· Shall be able to access public photos posted by the authors.

· Shall be able to browse public photos by categories, authors, and description.

· Shall be able to view the price, and description of the public photos.

Author

· Shall be able to register to the system with a valid username and password.

· Shall be able to login to the system with the registered credentials.

· Shall be able to post public and private photos to the system.

· Shall be able to define the accessibility (public or private) to each post.

· Shall be owner to the copyrights of the photos and shall be **self-responsible** for any copyrights issues on photos posted on the platform.

Admin

· Shall be able to register into the account with a valid username and password.

· Shall be able to login to the system with the registered credentials.

· Shall be able to access and modify (edit, update, and delete) *any* data/content in the database, if required.

Public Photos

· Shall be approved by authors.

· Shall be posted on the platform and made accessible to any user having access to the platform.

· Shall have a price.

· Shall have a description.

· Shall have an author name.

Private Photos

· Shall be approved by the authors.

· Shall be posted on the platform and made accessible to *only* registered users.

· Shall have a price.

· Shall have a description.

· Shall have an author name.

Item

· Shall have a price

· Shall have a description

· Shall have author name

Initial list of functional requirements:

1. **General Users**
    a. shall search images by category.
    b. search images by image size.
    c. search images by color type (black & white or colored).
    d. will see top searched images.
    e. will see his recent browse history.
    f. will create an account to upload images.

2. **Approved Users** have to login to upload images.
    a. shall change images to black & white if it is not black & white.
    b. shall do everything that unregistered user does.
    c. shall upload images.
    d. shall define the category of the images.
    e. shall share images with other users
    f. shall change sharing privileges of his images or albums
    g. shall assign a title and content definition to his images.
    h. shall create albums.
    i. shall delete images and albums.
    j. shall edit image, category, title, content definition and privileges of his image.
    k. shall publish or suspend their images.
    l. shall download original images.
    m. shall edit his account.
    n. shall recover his password.

3. **Admin Users**
    a. shall do everything that unregistered user does
    b. will verify image legality.
    c. shall create users and define their privilege.
    d. shall remove or publish user's images.
    e. shall suspend or remove user account.
    f. shall change other user's passwords.

List of 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:

Categories	ShutterStock	Dreamstime	Getty Images	US
Search	++	++	++	++
Registration	++	++	++	++
Prices	++	++	++	++
Organize pictures by Categories	++	++	++	++
Upload Pictures	++	++	++	++

++ = It exists

The top 3 websites that control most of the market have a lot of features that allows them to compete, but they have one big down fall is their pricing is very expensive which is good for us because we can drive a lot of user to our platform by providing photos for free until we have a strong user base. Also, we can compete with them on launch by having most of their features like Search, registration. Organize pictures by categories, and upload pictures option. Furthermore, when going to these websites that don't show any pictures on their homepage, but they show categories. We can do top 20 photos of the week on our main page which will incentive more content uploaders to our website to have their photos featured by us on the main page.

High-level system architecture:

- ○ Server Host, Instance size (CPU and RAM)
    - ■ AWS, 1 vCPU, 1 GiB RAM
- ○ Operating System and Version Number
    - ■ Linux version 4.4.0-1060-aws (buildd@lgw01-amd64-036) (gcc version 5.4.0 20160609 (Ubuntu 5.4.0-6ubuntu1~16.04.9)) #69-Ubuntu SMP Sun May 20 13:42:07 UTC 2018
- ○ Database and Version Number
    - ■ mySQL/5.7
- ○ Webserver and Version Number
    - ■ Apache/2.4.18 (Ubuntu)
- ○ Server-Side language and Version Number
    - ■ Express.JS
- ○ Also list any technologies or packages you will need that you think is important.
    - ■ Enzyme, Jest.

Team:

Team Lead:

David Hobby

Front-End Lead:	QA:	Back-End Lead:
Ekta Tandel	Michael Estefan	Sandesh Basnet

Engineers:

Front-End:	Back-End:
Arnold Chhay	Cavit Altindag

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 **ON TRACK.**

·   Team lead ensured that all team members read the final M1 and agree/understand it before submission **ON TRACK**