

SW Engineering CSC648/848 Summer 2018

Shallot

Team 02

Local

James Clark

jclark1@mail.sfsu.edu

Dandan “Jenny” Cai

Michael Lama

Patrick Cocio

Roy Telles

Xisheng “Sam” Zheng

Milestone 2

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Version	Name	Date
1	Initial Document	7/7/18
2	Incorporated Feedback	7/9/18
3	Database Organization Updated	7/12/18

1. Data Definitions V2:

- a. **User:** Any individual using our website.
 - i. **Unregistered User:** Can view all **approved images' thumbnails**. May download all **thumbnails**. Required to sign up and become a **Registered User** before viewing, uploading, or downloading any **full images**.
 - ii. **Registered User:** Required to login to view, upload, or download **full images**.
 - 1. **Author:** A **Registered User** that owns a posted **image**.
 - 2. **Admin:** Can access and modify all **images** and **users** on the website.
 - a. All uploaded **images** must be approved by the **Admin**.
- b. **Approved Image:** An **image** that has been approved by the **Admin** and is visible to all **users**.
- c. **Unapproved Image:** Visible only to the **Admin**. Once the **Admin** grants approval, it becomes an **approved image**.
- d. **Denied Image:** An **image** that has been denied and deleted by the **Admin** due to inappropriate, unnecessary, or pay-to-use content.
- e. **Items:**
 - i. **Image:** An **image** uploaded by a **registered user**.
 - 1. An **image** can be one of the following:
 - a. **Full Image:** A full-resolution copy of an uploaded **image**.
 - i. **Watermark:** Optional by **author**.
 - ii. **Pixel Size:** No Limit
 - iii. **Byte Size:** Up to 20MB
 - b. **Thumbnail:** A low-resolution version of an **image** with a **watermark** created immediately after upload.
 - i. **Watermark:** A tag overlaying an uploaded **image**.
 - ii. **Pixel Size:** Up to 500 x 500 pixels.
 - iii. **Byte Size:** Up to 5MB
 - 2. An **image's author** must provide the following:
 - a. **Category:** **Authors** will be able to classify the **category** the **image** falls under.
 - b. **Licensing & copyright:** The **author** who uploads the image is the full owner of the **image**. They can decide how other **users** use their **images**.
 - 3. Optionally, **authors** can provide the following:
 - a. **Description:** A summary, written by the **author**, about what the **image** is.
 - 4. All **registered users** can:
 - a. **Comment:** A short message about what the **user** think about the **image**
 - 5. An **image** must be:
 - a. **Format:** Permissible extensions will only be: jpeg, jpg, png, and tiff. Users will not be allowed to upload anything else.

- b. **File size:** Regardless of its **format** the image cannot be greater than 20 mb.
- ii. **Registration Record:** To become a **registered user**:
 - 1. An **unregistered user** must provide the following:
 - a. **Username:** A unique identification provided by the **user**. This must not match any of the other **registered users' usernames**. The **username** will be shown as the **author** of any posted **images**.
 - b. **Email address:** A unique email address provided to be used for communication between the **Admin** and the **Registered User**. The email address must not match any of the other **registered users'** email addresses.
 - c. **Password:** A personal key to access the registered account. It must contain a number and be more than 5 characters long.
 - d. **Date of Birth:** The date of birth of the **unregistered user** to ensure the **user** is above the age of 10 years old.
 - e. **CAPTCHA:** The user must pass a CAPTCHA test to determine if they are a real person.
 - f. **Accept Policies:** The **unregistered user** must accept the terms, policies, and conditions required to use our website.
 - 2. An **unregistered user** may, optionally, provide the following.
 - a. **First/Last Name:** The first/last name may be used to visually replace the username on the website.
 - b. **Gender:**
 - i. Male
 - ii. Female
 - iii. Other (fill-in)

2. **Functional Requirements V2:** The numbering system shown below is being implemented for the first time in this document. Numbers shown here have no relation to M1. Format for number system is: **(Priority #).(Requirement #).(Sub-Requirement #)**.

a. **Priority 1:**

i. **All Users:**

- 1.1 - System shall provide all **users** access to **approved images**
- 1.2 - System shall provide all **users** access to **image** data items
- 1.3 - System shall provide a **registration record** to all **users**
 - 1.3.1 - Required for **unregistered users** to become **registered users**.
 - 1.3.2 - Contains user name and email
- 1.4 - System shall protect the privacy of its **users**
 - 1.4.1 - Data is used only by this site for tracking usage and shall not be shared with anybody else
 - 1.4.2 - **Registered users** may be contacted with any questions and promotions
- 1.5 - System shall provide a search bar for all **users** to search/filter through **approved images**
 - 1.5.2 - System shall allow **users** to search through **categories**.

ii. **Registered User**

- 1.6 - System shall provide a database for **registered users** to store **images**
- 1.7 - Shall be able to post **images**
- 1.8 - Shall be able to add a **description** to their own **images** before and after posting
- 1.9 - System shall provide **registered users** the ability to download/save **images** for personal use
 - 1.9.1 - **Images** used by **registered user** shall not contain a watermark

iii. **Admin**

- 1.10 - System shall provide **admin** ability to
 - 1.10.1 - Approve/disapprove **images** submitted by **registered users**
 - Once approved, the image will go live.
 - 1.10.2 - Email **registered users**
 - 1.10.3 - Delete **registered user** accounts upon violation of website policies. Prior notice will be provided to the **user** via email.

b. Priority 3

i. User

3.1 - System shall provide all **users** with an option for *Dark Mode*

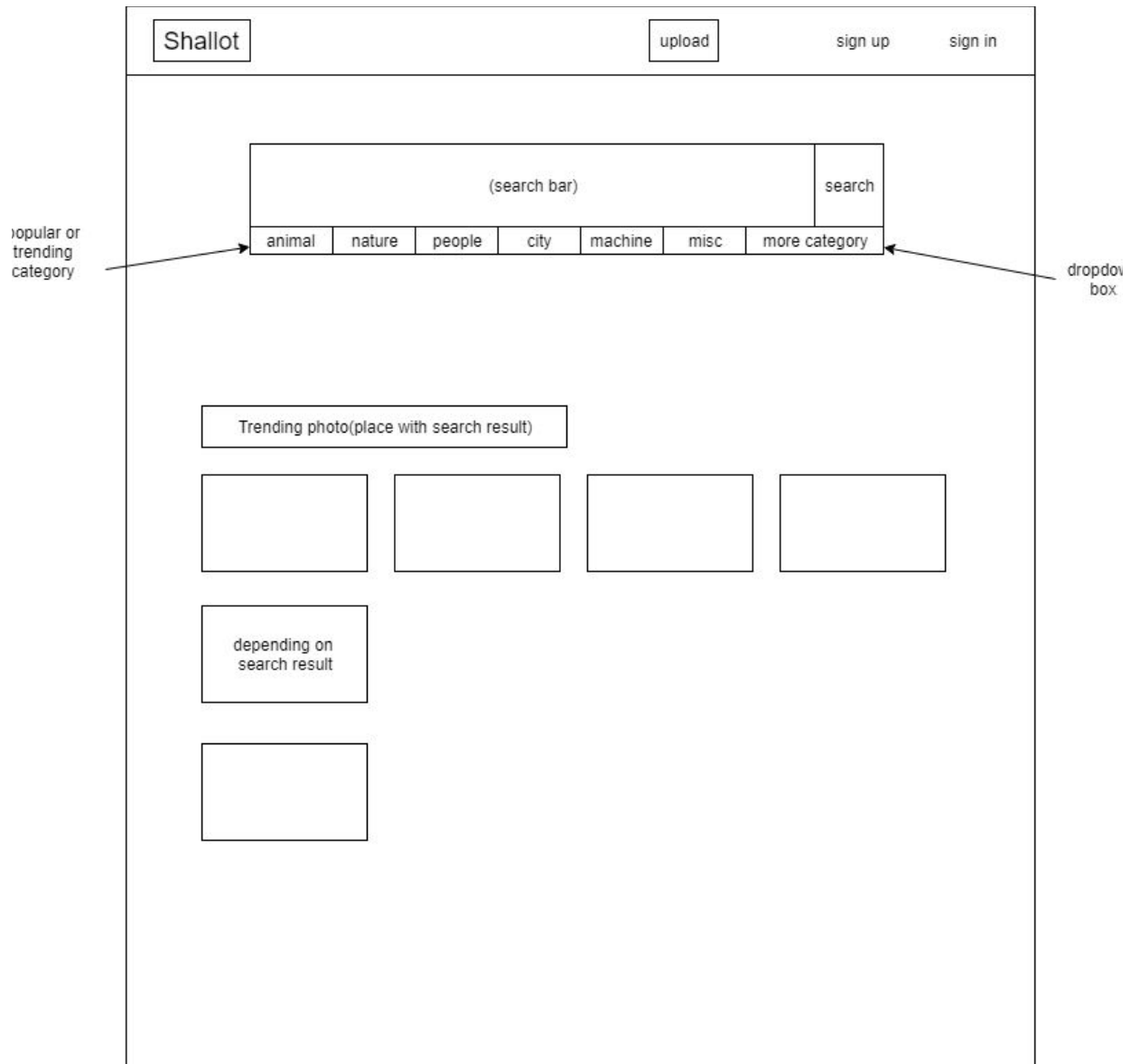
Once activated, by **user**:

3.1.1 - Background page color shall be inverted (white to black)

3.1.2 - Page text color shall be inverted according to page color
(black to white)

3. UI Mockups & Storyboards:

Once a **user** enters the main page, they will have the option to either search for an **image**, log in, or upload an **image**. On the main page, the **images** that are displayed by default are the trending **images** on our website. If the **user** searches for anything, the result will replace the default shown **images**.



If the **user** clicks on any of the **images**, they will be directed to a page with more detailed information about the **image** (i.e. **Tags**, **Author**, **Description**, etc.) and allow **user** to download the **full image**. Related images will also be displayed at the bottom of the page.

Shallot	category		Search	upload	sign up	sign in
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Image

HD image

Click here to download HD image

image information such as size, quality, date, etc

uploader username

cancel

If the **user** clicks on the sign up button, upload button, or a download button without being logged in as a **registered user**, the **user** will be redirected to a **registration record** and also provide the option to log in.

<div style="border: 1px solid black; padding: 2px; display: inline-block;">Shallot</div>	<div style="display: flex; align-items: center;"><div style="border: 1px solid black; padding: 2px; font-size: 0.8em; margin-right: 5px;">category</div><div style="border: 1px solid black; flex-grow: 1; margin-right: 5px;"></div><div style="border: 1px solid black; padding: 2px; font-size: 0.8em;">Search</div></div>	<div style="display: flex; gap: 10px;"><div style="border: 1px solid black; padding: 2px; font-size: 0.8em;">upload</div><div style="font-size: 0.8em;">sign up</div><div style="font-size: 0.8em;">sign in</div></div>	
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Registration

Mandatory

Email:

password:

confirm password:

name:

DOB

?

optional

first name

gender

city/state

policy/accept

accept

cancel

Register

pop up: reason for age restriction

If a **registered user** clicks on the upload icon, which is visible on every page, they will be redirected to the upload page, where they can upload their **images** to the website.

Shallot	<small>category</small> <input style="width: 80%;" type="text"/>	Search	upload	sign up	sign in
----------------	--	---------------	---------------	-------------------------	-------------------------

Upload Page

drop image here to upload
or
click here to browse device

add image using path

add

selection
category from
drop down or
scroll


input image description

cancel

confirm upload image

note that the image must be approved by admin before it can be viewed by users

must complete category,
description, image attachment
to proceed



4. High level Architecture, Database Organization:

DB Organization:

Category	
	categoryId
	categoryName
Image	
	ImageId
	ImageName
	Descr
	categoryId
	userId
	isPublic
	views
	size
	format
	isFullSize
	isThumbnail
User	
	userId
	userName
	password
	email
	dob

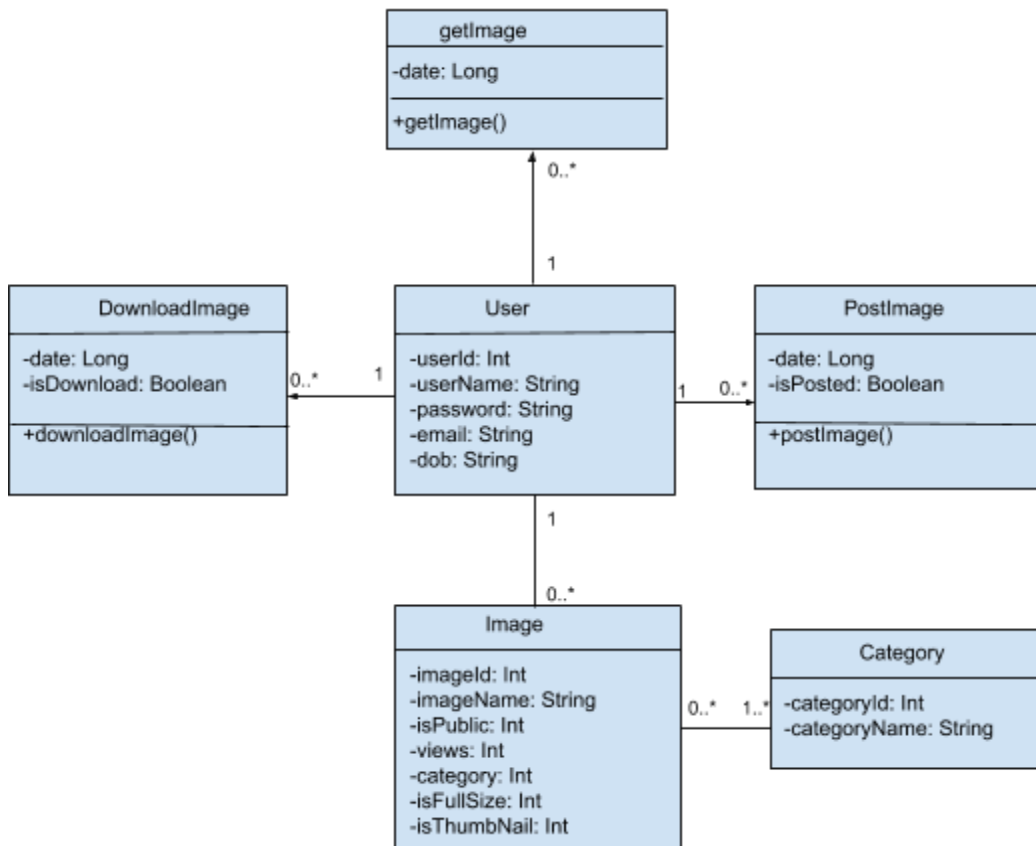
Media Storage: In the original plan, all **Images** were going to be stored in BLOBs but, upon further consideration, we have decided to use file paths instead. With the goal of meeting deadlines, we will continue to use file paths in the future, while leaving the possibility of using BLOBs open in the future, if time permits.

Search/Filter Architecture: We will be using our MySQL database and %Like in order to filter through the database items (ImageName and Descr). Without a search input or a valid search input, we will display all **images** within the database, possibly randomized.

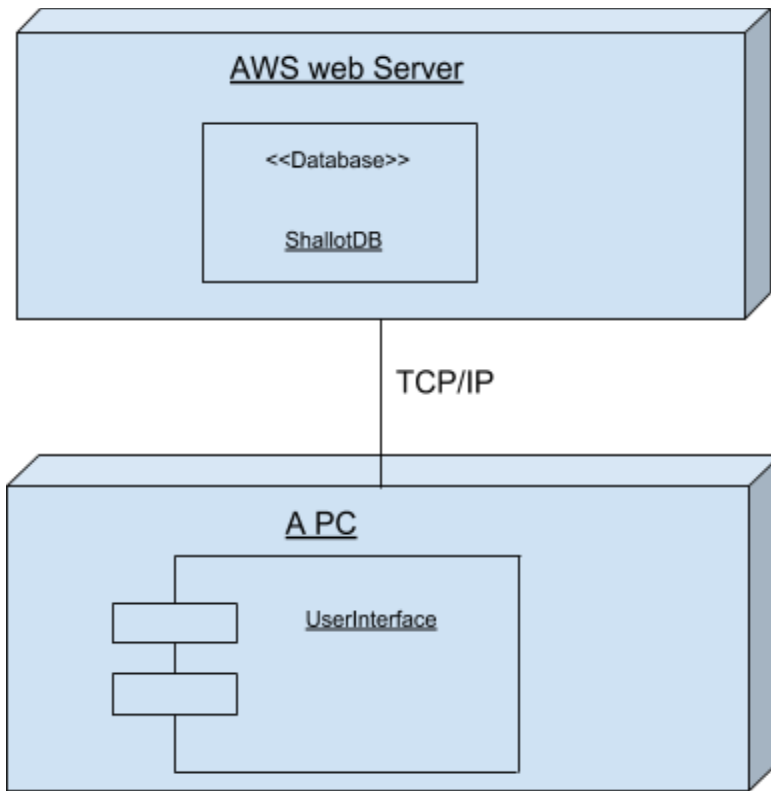
APIs: We are not creating any APIs.

Significant non-trivial algorithm: There are no significant non-trivial algorithms.

5. High Level UML Diagrams:



Deployment and Component Diagram:



6. **Risks:**

- a. ***Skills:*** Some members of the team are unfamiliar with Python. They are learning the language now through tutorials and practice in this project.