

SW Engineering CSC648/848

Spring 2020

SFSU Access

Team 02

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History

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1. Functional Requirements - Prioritized

Level 1

1. Non-Registered Users
2. All listings provided by registered users shall be made viewable by non-registered users.
3. Users shall register before being able to purchase or download items.
4. Users shall be able to create an account to engage in activity on the service. Registration shall require an SFSU email address.
5. Registered Users
6. Users shall be able to do everything that Non-registered users can
7. Posting items to the store shall be subject to Admin approval.
8. Users shall be able to log in on the website
9. Users shall be able to send and receive messages
10. Administrator
11. Content moderation is needed to protect users. Before a user listing is presented live, it shall be under review with the administrator. The admin shall approve or deny the listing

Level 2

1. Registered Users
2. After an item is no longer available, the user shall mark the item as these attributes.
3. Registered users:
4. A user shall wish to no longer engage in business within the service. They shall be able to use the delete user account functionality to remove their account and data.
5. Administrator:
6. The administrator reserves the right to delete any post at his or her discretion. This functionality provides that ability.

Level 3

1. Registered users:

2. A user shall wish to no longer engage in business within the service. They shall be able to use the delete user account functionality to remove their account and data.
3. Administrator:
4. 2. The administrator reserves the right to delete any post at his or her discretion. This functionality provides that ability.

2. List of main data items and entities

1. Users:

1. A user is any person that uses SFSU Access

2. Non-registered Users are:

1. Able to view, search, and see the details of all listed items on the website
2. Able to create an SFSU Access account
3. Unable to list or purchase items
4. Unable to message the sellers of listed items

3. Registered Users are:

1. Able to perform anything that Non-registered Users can
2. Users that have registered an account on the website
3. Users that can log in on the website
4. Able to create listings of new items, purchase listed items, or contact any sellers on the website when logged in

4. Administrators are:

1. Users that have privilege to approve or deny listings submitted by Registered Users
2. Unable to modify the contents of listings, such as pricing or item descriptions

5. Items:

1. An item is any photo, document, video, or other digital media type listed for sale by a Registered User
2. A listed item contains a name, price, description, any number of images, category and licensing info

6. Messages:

1. A message is a private text communication between two Registered Users

2. Interested buyers can send sellers a message through our messaging feature
3. Messaging can be used as a way to communicate conditions of the sale

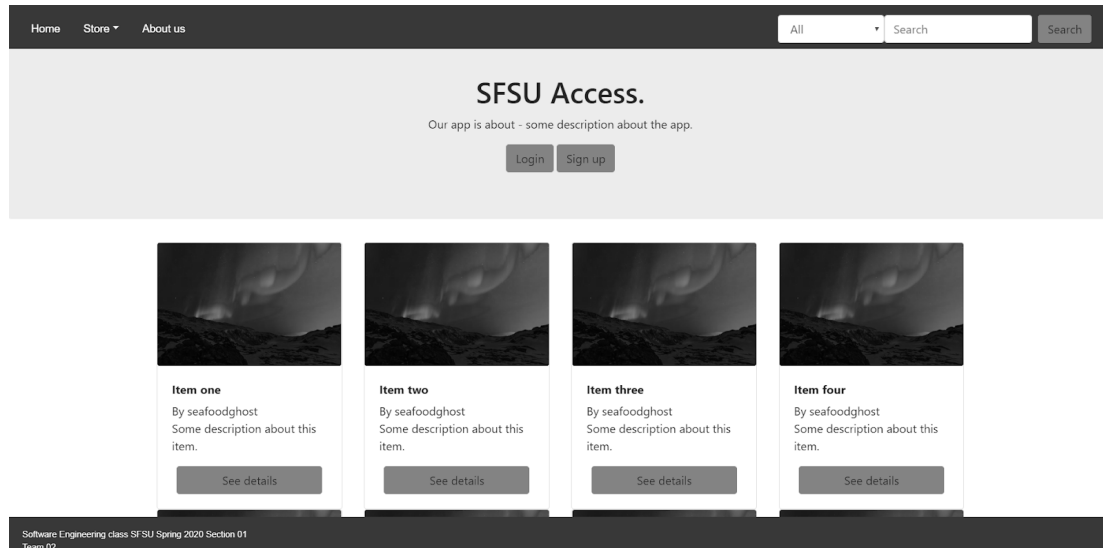
7. Categories:

1. Users can choose to search for listed items by filtered categories
2. Each category generalizes the type of item being sold on the website
3. Sellers can select which category their items best fit in when listing their products

3. UI Mockups and Storyboards

Base UI Layout

Visual Layout



NavBar

1. Home – Link to home page.
2. Store – Any user can search items by categories in the dropdown menu.
3. About us – Link to the about page.
4. Search section - Any user can search specific items in different categories by selecting a specific category and typing key words.

Greeting Section

1. Home – Link to home page.
2. Store – Any user can search items by categories in the dropdown menu.
3. About us – Link to the about page.
4. Search section — Any user can search specific items in different categories by selecting a specific category and typing key words.

Content Section

1. Non-registered Users — Showing a list of items by default, or the search result according to user input.
2. Registered Users and Administrator — Able to perform anything that Non-registered Users can.
In addition, this section links to the dashboard page for these users where they can manage their account. For example, removing any posted items, posting items, viewing messages, approving or denying items, etc.

Footer Section

1. Contains the class name, term, section, team.

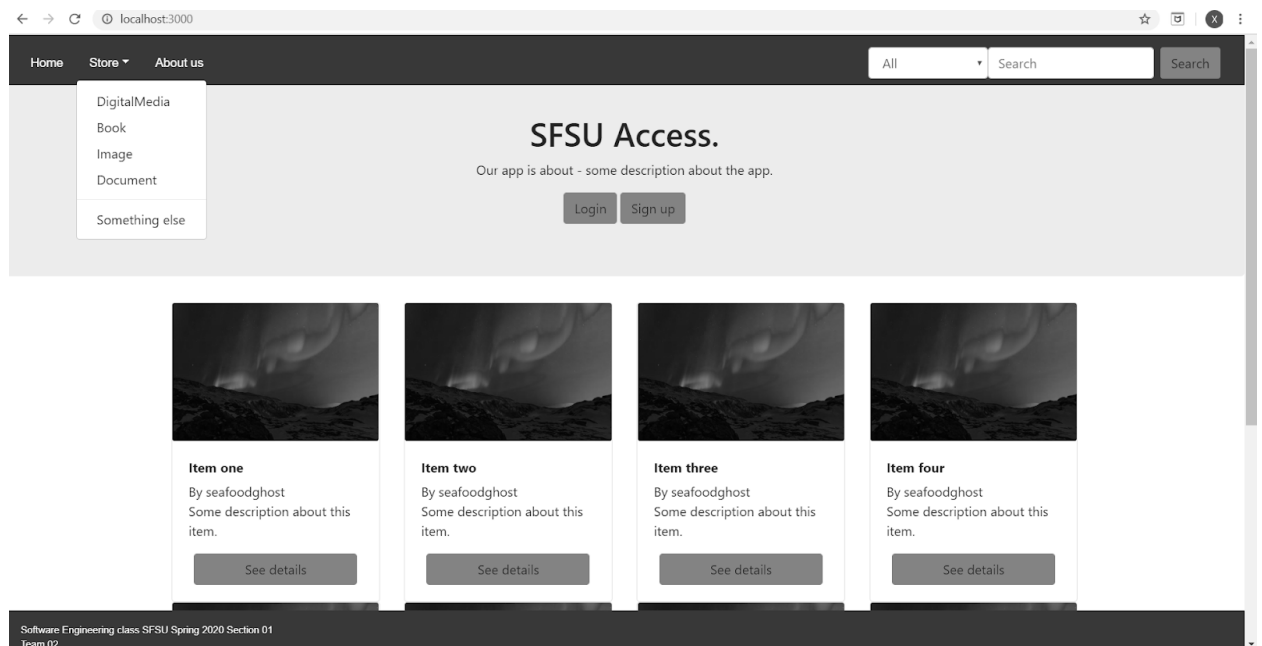
Storyboard Bases

Case 1: A Non-registered User wants to search / purchase an item.

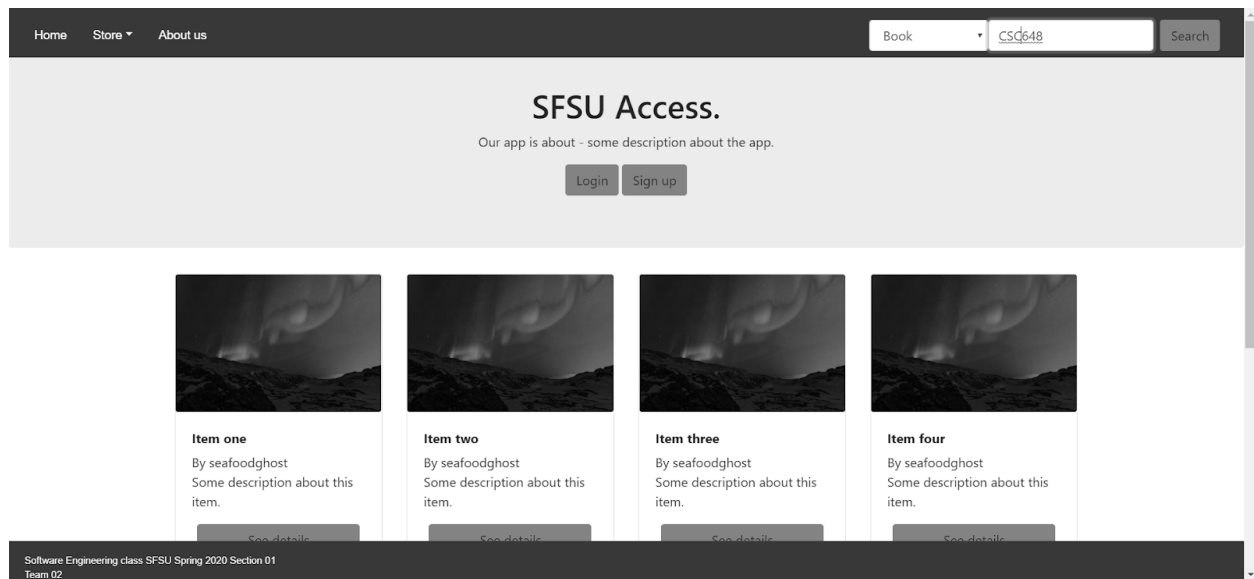
Jimmy (a Non-registered User) wants to search for a textbook for his CSC648 class.

Options:

1. He does the searching by selecting the Book button in the dropdown menu, then looks for the textbook for his class.



2. He does the searching by using the search section. Selecting the Book option in the category dropdown menu, then typing a relevant term, like “CSC648”, in the searching box.

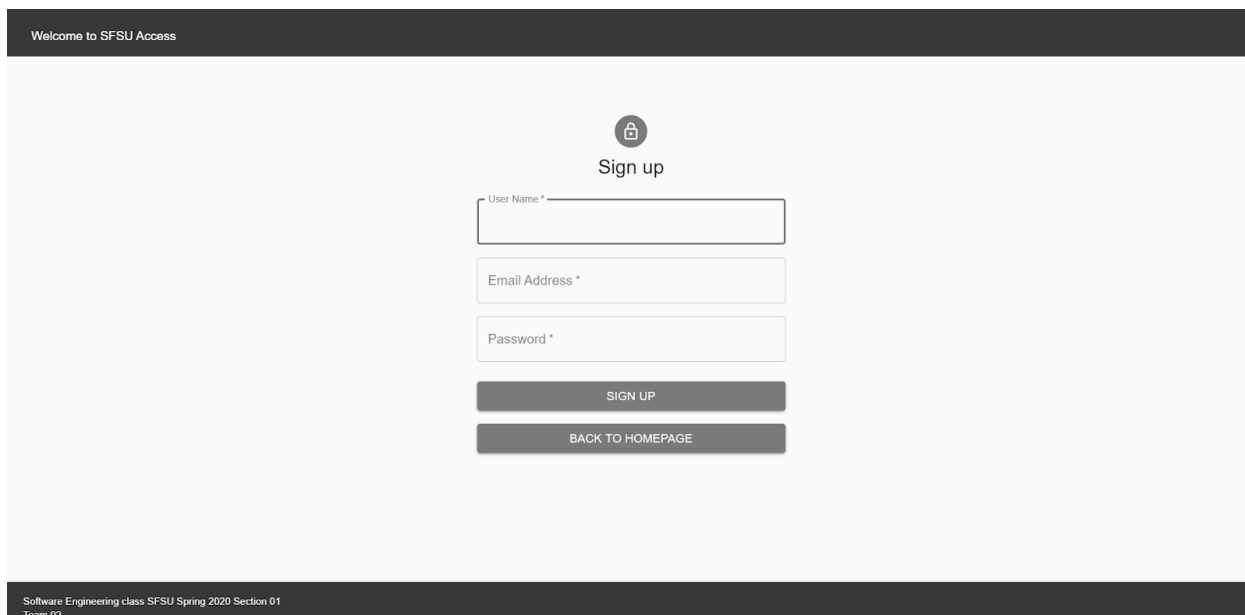


The corresponding result will be displayed in the content section. Jimmy views the details for each item by clicking the See details button. Here, with a pop up box, he is able view all the details of this item. He is also able to either send a message to the seller or go back to the previous page. If he chooses to contact the seller, he will be prompted to register or log in.


Case 2: A Non-registered User wants to list an item.

After finishing the semester, Alex (a Non-registered User) wants to sell his book on SFSU Access.

He registers an account from the signup page.



Welcome to SFSU Access

 Sign up

User Name *

Email Address *

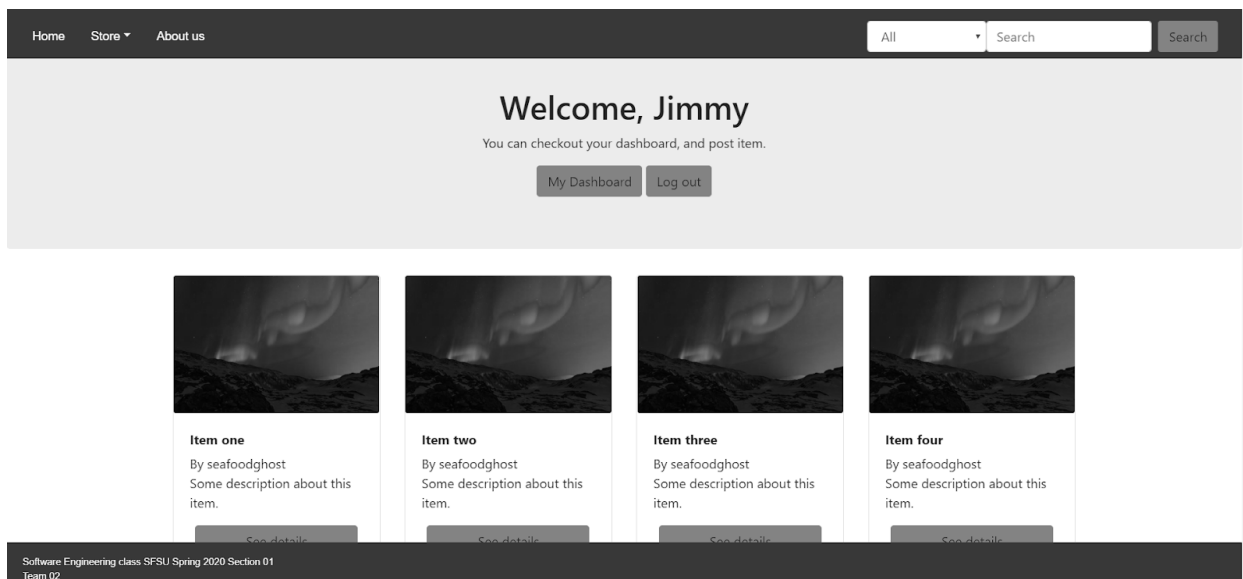
Password *

SIGN UP

BACK TO HOMEPAGE

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Then he goes to his own dashboard by clicking My dashboard button on the home page.



Home Store ▾ About us

All Search Search

Welcome, Jimmy

You can checkout your dashboard, and post item.

My Dashboard Log out

Item one
By seafoodghost
Some description about this item.
See details

Item two
By seafoodghost
Some description about this item.
See details

Item three
By seafoodghost
Some description about this item.
See details

Item four
By seafoodghost
Some description about this item.
See details

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In here, he selects the “Post an item” tab, then fills up the form with the relevant item information, such as name, category, images, pricing, description, and licensing. He is also able to view his items or messages in different tabs in a similar format.

The screenshot shows a user dashboard for a user named 'Jimmy'. At the top, there is a navigation bar with links for 'Home', 'Store', and 'About us'. To the right of the navigation bar is a search bar with a dropdown menu set to 'All' and a 'Search' button. Below the navigation bar, a large grey banner displays 'Welcome, Jimmy' and a sub-header 'You can checkout your dashboard, and post item.' with two buttons: 'My Dashboard' and 'Log out.'.

Below the banner, there is a horizontal menu with four tabs: 'My items', 'Post an item', 'Unapproved items', and 'My Message'. The 'Post an item' tab is currently selected. The form for posting an item includes the following fields:

- Item Name:** A text input field with the placeholder 'Enter item name'.
- Category:** A dropdown menu with the placeholder 'Choose...'.
- Upload item image:** A section with a 'Choose file' button, a 'Browse' button, and a 'Price' label.
- Price:** A text input field with the placeholder 'Enter item price'.
- Item Description:** A large text area for the item description.

At the bottom of the page, a dark footer contains the text: 'Software Engineering class SFSU Spring 2020 Section 01' and 'Team 02'.

Case 3: Registered Users / Administrators want to manage the account items.

In order to do that, they need to log in from the sign in page.

The screenshot shows a sign-in page. At the top, a dark header bar contains the text 'Welcome to SFSU Access'. The main content area is light grey and features a central sign-in form. The form is titled 'Sign in' with a lock icon above the text. It includes two input fields: 'User Name *' and 'Password *'. Below the input fields are two buttons: 'SIGN IN' and 'BACK TO HOMEPAGE'. At the bottom of the page, a dark footer contains the text: 'Software Engineering class SFSU Spring 2020 Section 01' and 'Team 02'.

Registered Users:

Go to the user dashboard. To view posted items, items that are waiting for approval, make a post, read messages.

[Home](#)
[Store ▾](#)
[About us](#)

All ▾

Welcome, Jimmy

You can checkout your dashboard, and post item.

My Dashboard
Log out

My items
Post an item
Unapproved items
My Message

| Number | Name | Description | Remove item |
|--------|------------|-------------|---------------------------------------|
| 1 | Table cell | Table cell | <input type="button" value="Delete"/> |
| 2 | Table cell | Table cell | <input type="button" value="Delete"/> |
| 3 | Table cell | Table cell | <input type="button" value="Delete"/> |
| 4 | Table cell | Table cell | <input type="button" value="Delete"/> |

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Administrators:

They shall be able to approve or deny listing items, read messages in a similar format to the user dashboard.

[Home](#)
[Store ▾](#)
[About us](#)

All ▾

Welcome, Administrator

You can checkout your dashboard, and post item.

My Dashboard
Log out

Items
Post an item
Unapproved items
My Message

| Number | Name | Description | Approve/Deny item |
|--------|------------|-------------|--|
| 1 | Table cell | Table cell | <input type="button" value="Approve"/> <input type="button" value="Deny"/> |
| 2 | Table cell | Table cell | <input type="button" value="Approve"/> <input type="button" value="Deny"/> |
| 3 | Table cell | Table cell | <input type="button" value="Approve"/> <input type="button" value="Deny"/> |
| 4 | Table cell | Table cell | <input type="button" value="Approve"/> <input type="button" value="Deny"/> |

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4. High level Architecture, Database Organization

4.1. Database Organization

| Table Names |
|----------------------|
| Music_Products |
| Video_Products |
| Class_Notes_Products |
| Product_Categories |

| Fields |
|--------------------|
| product_name |
| product_author |
| product_file_size |
| product_author |
| product_image_link |

4.2. Media Storage

Any media files related to items uploaded by users of SFSUAccess will be managed in a file system. MySQL will only hold the respective URI to the item uploaded by the users. For the purposes of this class project, we will be simulating upload and downloading of video files. The free-tier medium storage on our AWS server is limited on capacity. While we will upload and download audio(Music category) and document files(Class Notes category) to our file system, we will accept Youtube links to “videos files” for the purpose of this simulation.

4.3. Search/Filter Architecture

Right now, our categories have a uniform set of field names. There will be a table associated with each category's table in the database that will keep track of any fields unique to that category.

This table will be queried to allow agnostic queries to be made without writing special functions per category to call these unique fields.

4.4. API

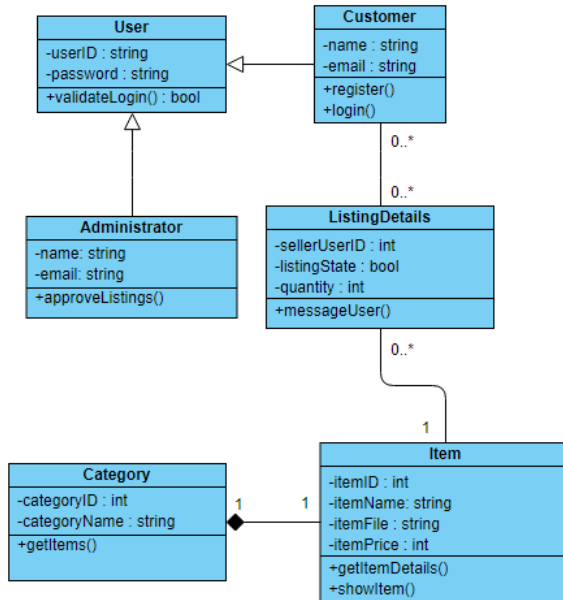
The only API we have planned at this stage in development are standard queries to the MySQL database.

4.5. Additional Software Tools

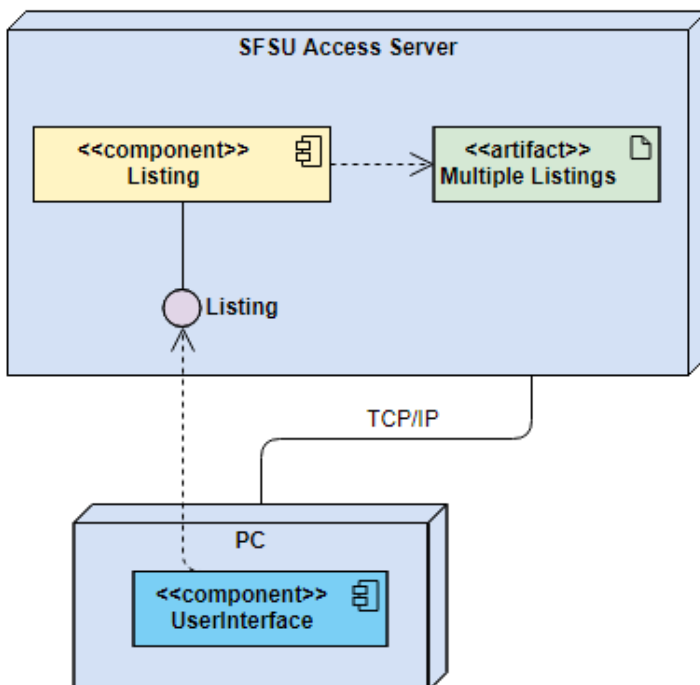
At the beginning of this project, we had chosen Python for back-end / server logic; Amazon's Web Services for hosting the back-end logic; and React.js for the front-end coding. After getting settled in on the environment, we have no current plans to make any changes this late into the development cycle of our project.

5. High Level UML Diagrams

5.1. High Level UML



5.2. UML Component and deployment Diagrams



6. Project Key Risks

- **Schedule risks:**

- **Description:** Due to the current pandemic situation worldwide, there may be some changes to the time availability of some of our members. This is due to changes in employment schedules and residential displacement.

- **Proposed Resolution:**

Our group has identified these risks and held a discussion regarding any issues that any of our individual members may face. We have since proposed changes to be made to best reflect our current situation.

If our agreed upon solution is no longer feasible, we will contact the CTO for further action.

- **technical risks**

- **Description:** Due to the current pandemic situation worldwide, there could be unfortunate circumstances in which individuals of the team are unable to access their computers or the Internet and can not seek for these resources outside their shelter.

- **Proposed Resolution:** The group has identified that all team members have mobile data and SMS texting on their smartphones. This will allow those that are affected by the technical risk to contact the rest of the group to communicate their situation. At that time, we should still be able to communicate with text and screenshots through our group chat platform.

- **legal/content risks**

- **Description:** While we are planning on including a public facing disclaimer on the public pages of our application regarding the purpose of this project, we are still obligated to follow local and federal regulations regarding the distribution of copyrighted content. While we will diligently make sure that any content we as a team upload to the server will be considered “free-use” or media in which we own the rights to, there is the potential risk of mis-judging what is or is not allowed to be used on our service.

- **Proposed Resolution:** To minimize this risk, we have two lines of defense.

We will discuss this topic with our team to make sure everyone is up to date on this issue and learn how to differentiate media content we can use.

In the event a media file is erroneously uploaded to our server that is otherwise not allowed on the service, we will be making use of our Administrator dashboard to approve or reject such content before it is ever live on the service.

7. Project Management

Our back-end lead Kevin has organized responsibilities and processes to follow for the team to get started on developing the project. An internal project document has been written to detail many areas of focus. We have a hierarchy of roles assigned to our members, as well as two sub-groups that have unique roles dedicated to that team.

We have researched development environments that make developing more efficient. This led to our team re-factoring our project structure to be in a more organized fashion. We have also meticulously researched any tools that we plan to use to ensure they are used correctly.

We have designated general responsibilities for each team and further clarified responsibilities using examples to ensure everyone understands their role in the team specifically. We have also discussed the responsibilities each team has to the other team by highlighting the importance of proper inter-communication.

We are continuously holding scrums weekly as well as contributing to our internal messaging system daily. All of our communications are recorded and are able to be accessed by anyone in the group. In further milestones, we will begin to practice our internal processes and begin assigning tasks through trello.

| Item | Credentials |
|--|---|
| Website URL | http://52.53.184.216/ |
| Website URL to search page | http://52.53.184.216/ |
| SSH URL | ec2-52-53-184-216.us-west-1.compute.amazonaws.com |
| SSH Username | ubuntu |
| SSH Password/Key | Permission key is required. Pem file is hosted on our private Github repository in the credentials folder. |
| Database URL | csc648.cxyapjc8a04v.us-west-1.rds.amazonaws.com |
| Database Username | admin |
| Database Password | rdsmysql |
| Link to GitHub page that performs the Search | https://github.com/CSC-648-SFSU/csc648-fa20-team02/blob/master/application/M2/SFSUAccess/react-frontend/src/components/Search.js |