



Mayfair Web Project Final Report

CS4624, Multimedia, Hypertext, and Information Access

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1. Executive Summary

For this project, our team is working with Mayfair Group LLC to help create three business websites: Mayfair Project (mayfairproject.com), Better Deposition (betterdep.com), and Electronic Summary (esumry.com). Each website addresses a different purpose for the company. The Mayfair Project site serves the goal of providing key information including the company mission, the staff of Mayfair Group LLC, and the specific projects they currently are working on. It also will link to pages to provide deposition file summarization services for its clients, such as insurance companies and law firms, to help them to achieve better efficiency when processing deposition files. Better Deposition (Betterdep, for short) is to help with better depositions, with experts invited to guide others through a blog. Electronic Summary (Esumry, for short) provides text or file summarization services for all users. Our team's responsibilities include designing and implementing the front end and user experience for all three websites and hosting them through Amazon Web Services.

Our team's responsibilities include designing and implementing the front end and user experience for all three websites and hosting them through Amazon Web Services. By the time of writing this report, we have finished implementing Mayfair Project, Esumry, and Betterdep. For both Mayfair Project and Esumry, we actively communicated with our clients at Mayfair Group LLC to make sure our designs meet their expectations and achieve the results they wanted to achieve. We designed multiple prototypes for Mayfair Project and Esumry and let clients decide on which features and what design they like better. We used their feedback to finalize our final products. Both final products were well-received by our clients during a client meeting, so we went ahead and deployed them on Amazon Web Services. We also had a meeting with the entire team at Virginia Tech working for Mayfair where we determined that Betterdep would first be created as a blog or forum website. We had limited time to implement Betterdep but have created a basic forum website allowing users to log in and post information on how to create better legal depositions. This report will cover the main requirements and implementations of each of the three websites as well as user and developer manuals documenting the key features of the websites and the implementations behind them.

2. Introduction

Mayfair is a company with the goal “To help insurance companies and the lawyers they hire to defend lawsuits efficiently collaborate on critical tasks, resulting in better decisions, better outcomes and better cost control,” as stated by Susan Chapman. The goal of the project as a whole is to construct three distinct websites and meet the client’s needs. The three websites are briefly detailed here with a more in depth look in later sections. They are as follows:

1. Mayfair Home: A landing page on the website that acts as a welcome to new clients and gives them an introduction to what Mayfair is trying to accomplish. Some items that are at the forefront of this site are: the use of images and icons, mobile enabled, and easy to navigate. A way to communicate with the Mayfair team will be included as well as information on who they are.
2. Esumry will be the second site. Esumry makes use of a simple third-party application where you are able to give large bodies of text or files and receive a summarized version. This will be expanded in the future with Mayfair’s own summarization API and methods. It can be transitioned into a paid service for users or become a learning service for the public.
3. Betterdep will be the third and final site that allows users to share experiences about attaining better legal depositions. User accounts once again will be an important part of the site, with the ability to create and post to forums.

The six team members have worked in parallel so each site has different members assigned. A similar design language has been applied that will be followed for each of the three websites, to achieve consistency, while still meeting key objectives.

3. Requirements

3.1 Mayfair (Main)

The Mayfair home website is the initial website that potential clients will be visiting. A first impression of Mayfair as a company will be established here. A welcoming and professional appearance is of the utmost importance. The Mayfair home website should create that friendly and welcoming environment. Another important goal for this website is to describe what the company is all about. Company goals and background are required here as well. Lastly we need team information with images and biographies about the individuals involved with the Mayfair project.

3.2 Esumry

The given requirements for this website was very general because the use and goal of the site was not finalized. They were unsure if they wanted this to be an open application as a learning module to inform the public on machine learning applications, specifically summarization, or a paid service for summarization. We were told that this site should be the foundation that could be built upon to create one of these options.

The requirements were:

1. Be able to intake huge bodies of text into a textbox
2. Support file uploads (PDF)
3. Be able to choose summarization methods
4. Make API call to a certain URL (to be replaced with their API)
5. Show summarized text to the user
6. Download summarized text as a PDF

3.3 Betterdep

Betterdep had different requirements from the first two sites as this website was intended to be a blogging website. For this reason, user accounts would play an important role in the website. Once users were logged in, they should have the ability to create forums and posts for others to view and reply to. With such a late start in the development of Betterdep, the requirements for this website were less strict than our other websites.

The requirements we determined for Betterdep were:

1. Create, manage, and delete user accounts
2. Create forum threads
3. Upload posts to specific forums for view by others

4. Design & Implementation

4.1 Mayfair (Main)

Mayfair has gone through several different versions of the site. Each version has been different from the previous with the last version being a mix of the initial two. Screenshots of the first two websites, which were separately developed, are listed below.



Figure 1: Mayfair (Main) first prototype



Figure 2: Mayfair (Main) second prototype

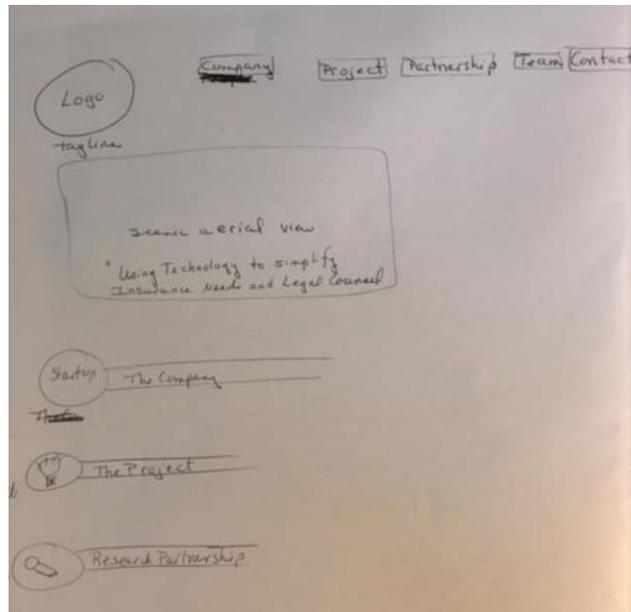


Figure 3: Mayfair (Main) wireframe drawing

With the feedback gathered from the first two websites, the third one was developed alongside a design outline given by Susan Chapman listed to the right side. Ease of navigation was an important part in the designs. Modern and simple aspects also played an important role. Issues with the first two designs were that one was too whimsical, and the other was too generic. With a mix of the two the final design was much more presentable. A navigation section was added to the top of the page that follows the user around to continue the aspect of ease of access to important parts of the website.

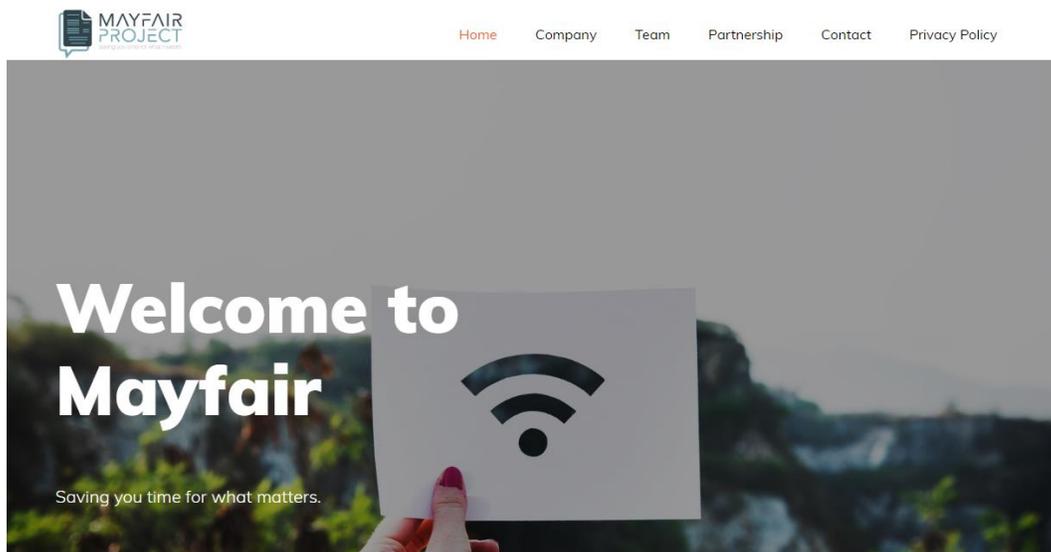


Figure 4: Mayfair (Main) screenshot

4.2 Esumry

We created wireframes for Esumry based on the requirements given by our client and doing research upon similar applications that provide this type of service. We gave these wireframes to our client to receive feedback and obtain approval to begin development. We showed mockups of how the site would look upon a desktop and mobile/tablet.

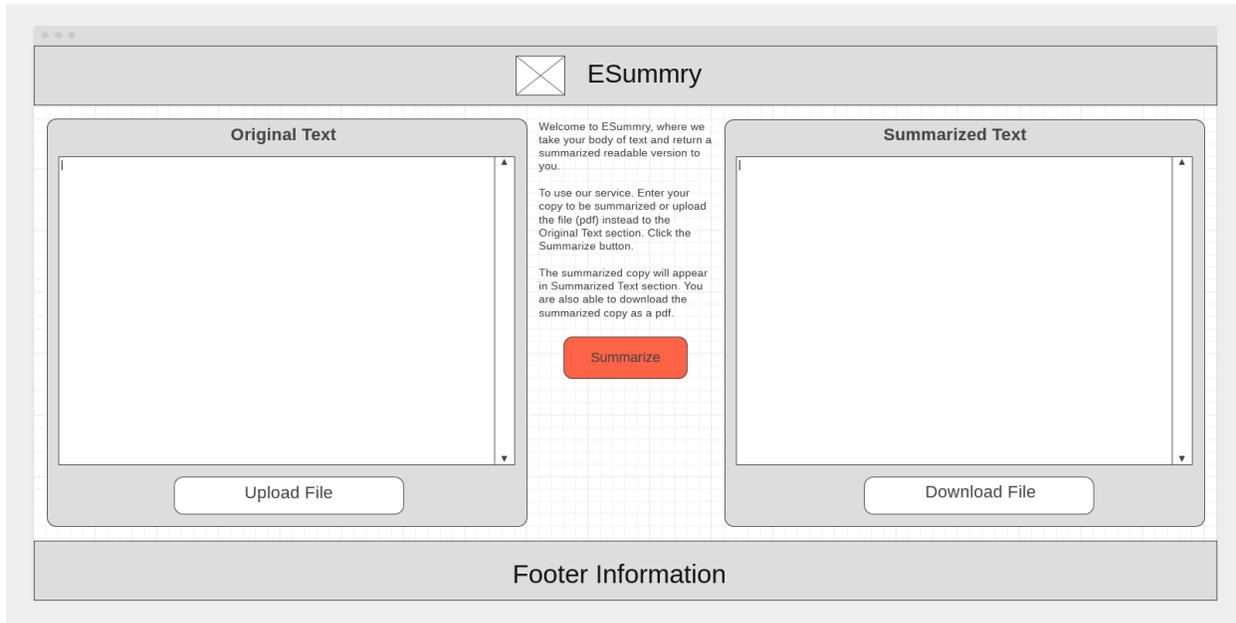


Figure 5: Esumry desktop wireframe

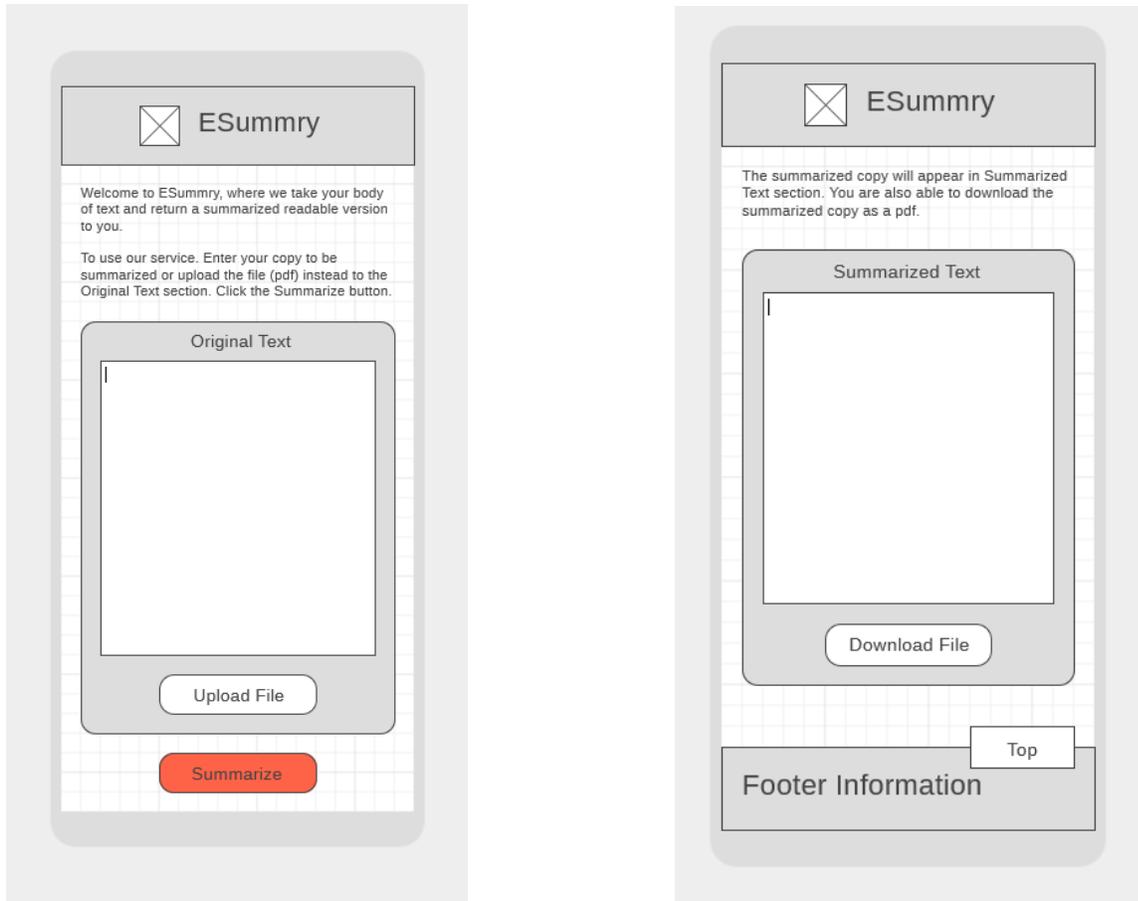


Figure 6: Esumry mobile wireframe

We decided to use the framework Angular, the design Material, and the styling Bootstrap. The reason we chose these options was because we thought the support for these technologies would be pretty long lasting for the positive reviews and traction they are building. Another reason was because we were recommended these technologies by senior project managers. We were also very excited to build upon our skill sets by using these new technologies. We used Github for version control and collaborative working environment.

4.3 Betterdep

Betterdep is a react-based framework that acts as an online forum for the discussion of deposition summarization in relation to the Mayfair Project. This framework allows users to create profiles, post discussions, respond to other users, tag posts, like posts, and many other features of a typical web forum.

In order to secure user data properly, Betterdep authorizes users through Github, a well-known and secure authority. Each user logs in using their Github account, avoiding the necessity to create another account for current Github users. If the user does not have a Github account, they can easily create one through the ‘Sign up’ link. The user is logged on securely, using Github’s application authenticator OAuth, and redirected to the main Betterdep page where they can locate and contribute to discussions. OAuth is configured via the `credentials.js` file in the ‘config’ directory. Additional information regarding OAuth can be found both in the `README.md`, and in section 6.4 below. Betterdep is connected with a backend database using MongoDB Compass. Compass allows administrators to track site/user statistics easily with a simple user-facing GUI. Compass is easy to run and adds significant value for a company looking to increase user retention via website statistics.

Delegating an administrator is done in a simple fashion: first come first serve. The person (or machine) that first sets up an instance of the site becomes the administrator by default. The admin panel provides simple statistics regarding the overall status of the framework and allows for the creation of new forums. Once the forum is created, users can post discussions related to that topic. Forums can only be created by the administrator to avoid unwanted topic postings.

Note: The underlying framework for Betterdep was designed by Provash Shoummaon on GitHub [3]. The framework is licensed under an MIT license, so there is no need to provide credit or citations, but we mention it here for thoroughness. To satisfy legal requirements, we must only keep the license somewhere in the source code, which is permitted to be private and for-profit.

See Figure 7 for a view of the home page for Betterdep, and Section 5.3.3 for views of all other pages of the Betterdep site.

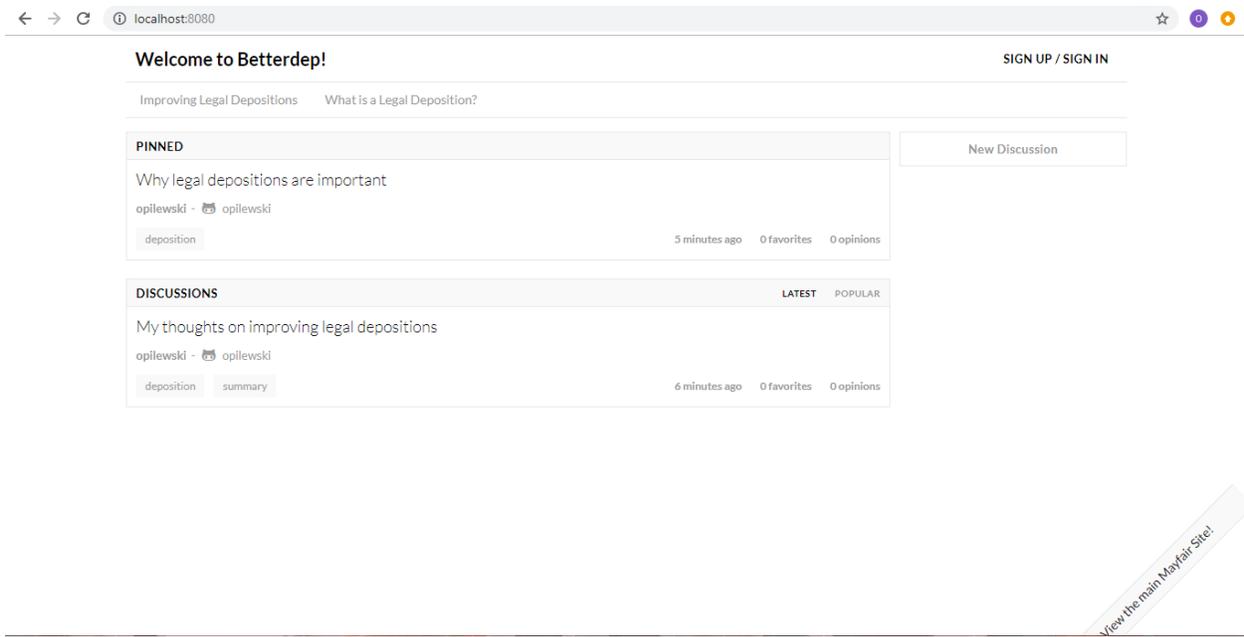


Figure 7: Betterdep home website

5. Users' Manual

5.1.1 Website Navigation [Mayfair Main Site]



Figure 8: Mayfair (Main) navigation bar

At the very top website is a header that has the company logo and a navigational tab that slides the user down to a specific region. For example, if one clicked Contact, they would be immediately moved down to the contact form section of the website.

5.1.2 Welcome image and branding [Mayfair Main Site]

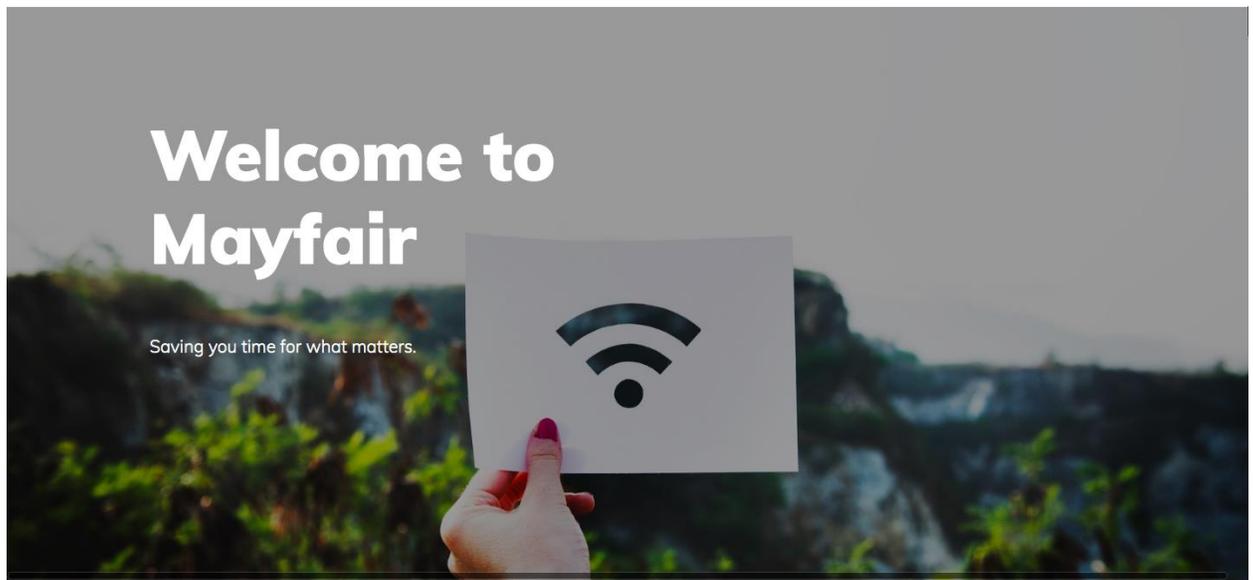


Figure 9: Mayfair (Main) welcome image

As discussed by the clients of the project, they wanted the website to have a homey feeling, and something to elicit emotions of evanescent. The company's tagline being "Saving you time for what matters," a background of greens does justice to fit that description. The website team also took deep consideration into branding and we felt (with the client's approval) that an image of the outdoors would set the tone for what Mayfair is all about and the rest of the website to come.

5.1.3 Startup Description [Mayfair Main Site]

About Mayfair

Mayfair is developing technologies using artificial intelligence, machine learning and natural language processing to make the practice of law more rewarding for lawyers and less expensive for their clients.



What we are working on

Our current project is focused on summarizing transcripts of witness depositions taken in personal injury cases. The goal of Mayfair is to develop a software solution that is cheaper, faster and unbiased in the summaries that it creates.

Where are we now

Mayfair Group and Virginia Tech are working to develop a cloud-hosted service to summarize transcripts of witness depositions. The research team has completed its proof-of-concept work and is now developing a tool that is expected to begin beta testing in 2019. A robust web architecture and data storage solution for transcripts is also being developed to provide busy attorneys with highly secure capabilities to easily manage, search and annotate transcripts and to collaborate with clients and expert witnesses. In this and future activities we will follow our Privacy Policy.



Figure 10: Mayfair (Main) about page

The goals of the Mayfair company are clearly presented on the main Mayfair website. It gives an explanation of the goals of the company and what its software hopes to accomplish. Any information about future development will be listed here. Obviously as the company becomes more successfully, there will be changing goals, so this section will be changed appropriately.

Information about what the team is working on is clearly shown. Any progress that the team has made is listed on the website to promote transparency and trust. Some of the software (especially the Betterdep) will be open-source thus it is important to have this section updated so any open-source maintainer can stay informed.

5.1.4 Contact Page [Mayfair Main Site]

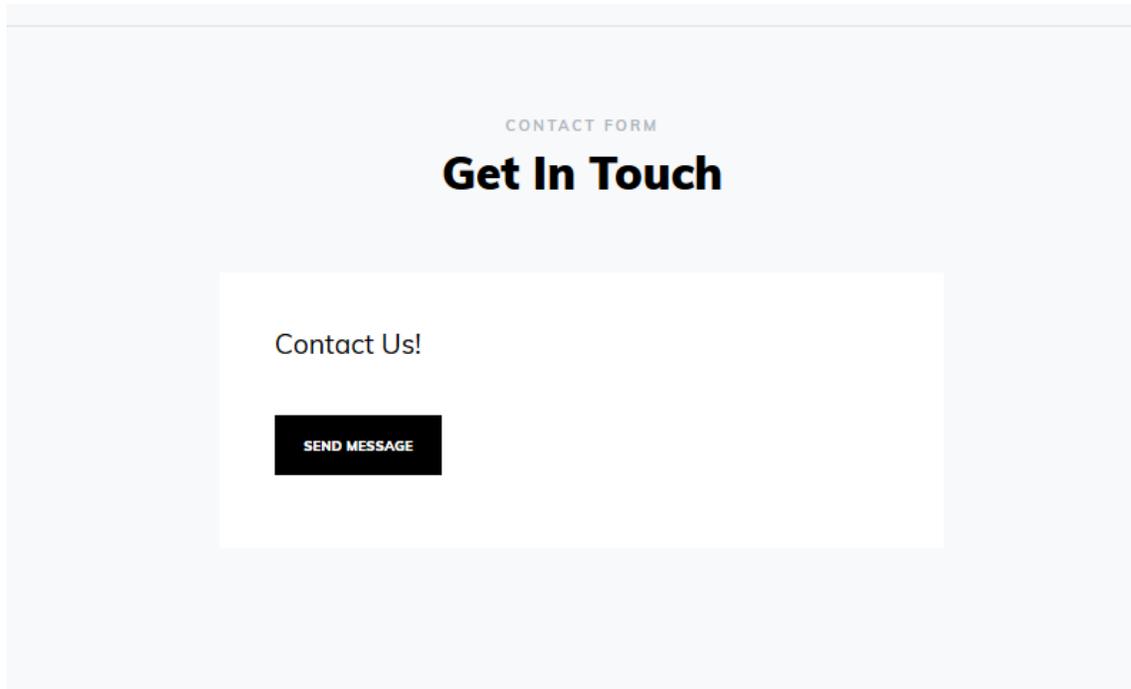


Figure 11: Mayfair (Main) contact page

The screen allows a visitor to contact the people at Mayfair, whether it is in regard to further inquiry or for a demo for any of the software. The contact area simply asks for a name, email address, subject, and text message. The visitors' information is sent to info@mayfairproject.com for any admin to respond to, but this can be changed easily by editing the email address in the code. Any concerns about the software, the company or anything Mayfair related should be directed to this contact form.

5.1.5 User Roles and Responsibilities [Mayfair Main Site]

The screenshot displays four team members on the Mayfair (Main) people page. Each member's profile includes a headshot, their name, role, and a brief biography. Below each bio is a small circular icon with the LinkedIn logo.

- James Chapman**: CEO/FOUNDER/LAWYER. James L. Chapman, IV is Chief Executive Officer of Mayfair Group LLC. James Chapman is a litigation attorney and partner with the law firm of Crenshaw, Ware & Martin, PLC, in Norfolk, Virginia.
- Susan B. Chapman**: CFO/FOUNDER/ADMINISTRATOR. Susan B. Chapman is Chief Finance Officer and Administrator of Mayfair Group LLC. Her professional experience has spanned banking, commercial real estate, elementary education, and higher education.
- Dave Klein**: ADVISOR/COACH/ENTREPRENEUR. Dave has been advising and leading organizations in the strategic use of technology and management for over 35 years. Prior to becoming an entrepreneur, Dave served two years as Vice President, Engineering with Empirical Software.
- Edward A. Fox**: CTO/FOUNDER/PH.D. Dr. Fox is Chief Technology Officer of Mayfair Group LLC.

Figure 12: Mayfair (Main) people page

All the key members and their respective roles are labeled. Any additional information about each group member is shown to give some background to the team members. A small blurb about their experience and position in the company is provided. If one clicks on any of the profile pictures, they will be redirected to a new page where there is more information on the individual's contribution and other accolades.

5.2.1 Website Description [Esumry]

Esumry is a web application currently open to the public. This may be turned into a paid service or a learning module on summarization methods and their application in the real world. This application provides the service of intaking large bodies of text and returning a summarized, readable text to the user. The user is able to upload files and download the summarized text as PDFs and is able to choose the summarization methodology (future).

5.2.2 User Roles and Responsibilities [Esumry]

Leeciling Chea - Back-end and front-end web developer

- UI design and flow
- File handling
- API calling

Junwei Yao - AWS specialist

- Website hosting

All the key members and their respective roles are labeled. Any additional information about each group member is shown to give some background to the team members. A small blurb about their experience and position in the company is provided.

5.2.3 Website Navigation [Esumry]

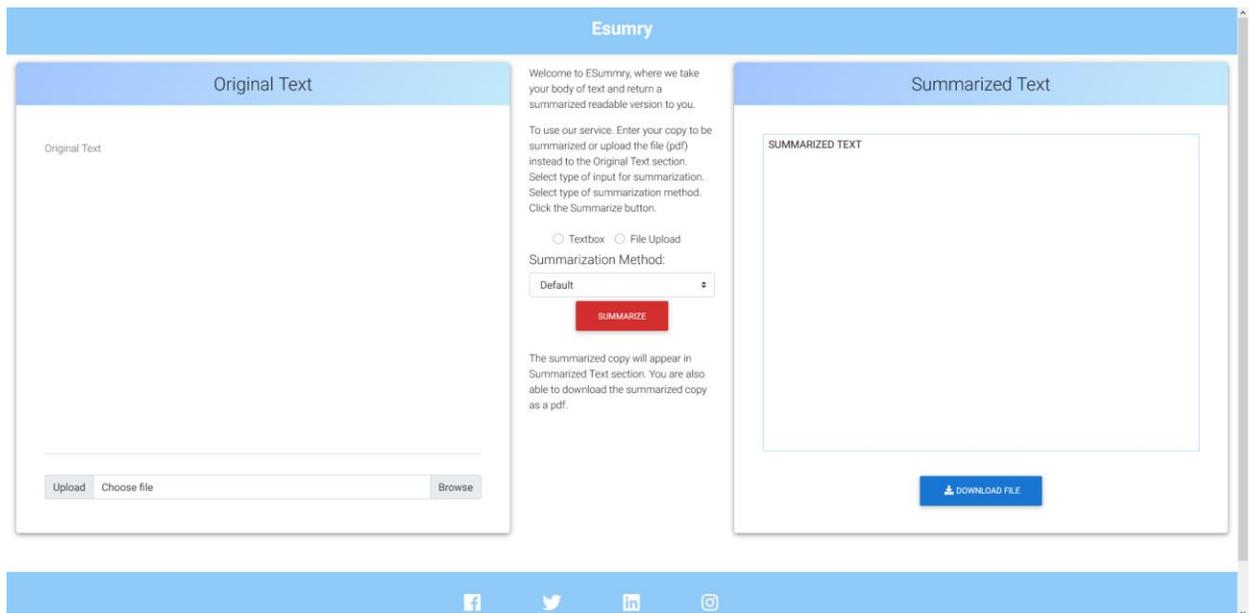


Figure 13: Esumry main page

Esumry navigation is simple such that not much instruction is needed. We will provide a short introduction of Esumry and how to use the service for the user on the web page. In the Original Text section, enter your copy of text to be summarized in the text box or upload the file (PDF) instead by pressing the Upload File button. Choose either text box entry or file upload

switch. If none is chosen, then it defaults to text box entry. Choose summarization method; currently this does nothing but will be expanded upon in the future. Click the Summarize button. The summarized copy will appear in the textbox under the Summarized Text section. You are also able to download the summarized copy as a PDF file by pressing the Download File button. At the bottom of the page, there are links to the Mayfair social media accounts and a copyright notice for the Mayfair Group LLC.

5.3.1 Website Description [Betterdep]

As stated in the introduction, the Betterdep website was designed to be a blogging website for users to share methods of obtaining better legal depositions. The website may be improved with summarization capabilities in the future, but the blogging features were the focus of the website for our team.

5.3.2 User Roles and Responsibilities [Betterdep]

Owen Pilewski - Front-end web developer

- Front-end development and styling

Connor Cason - Front-end web developer

- Front-end development and styling

All the key members and their respective roles are labeled. Any additional information about each group member is shown to give some background to the team members. A small blurb about their experience and position in the company is provided.

5.3.3 Website Navigation [Betterdep]

When users first visit the website, they will find a screen looking something like this.

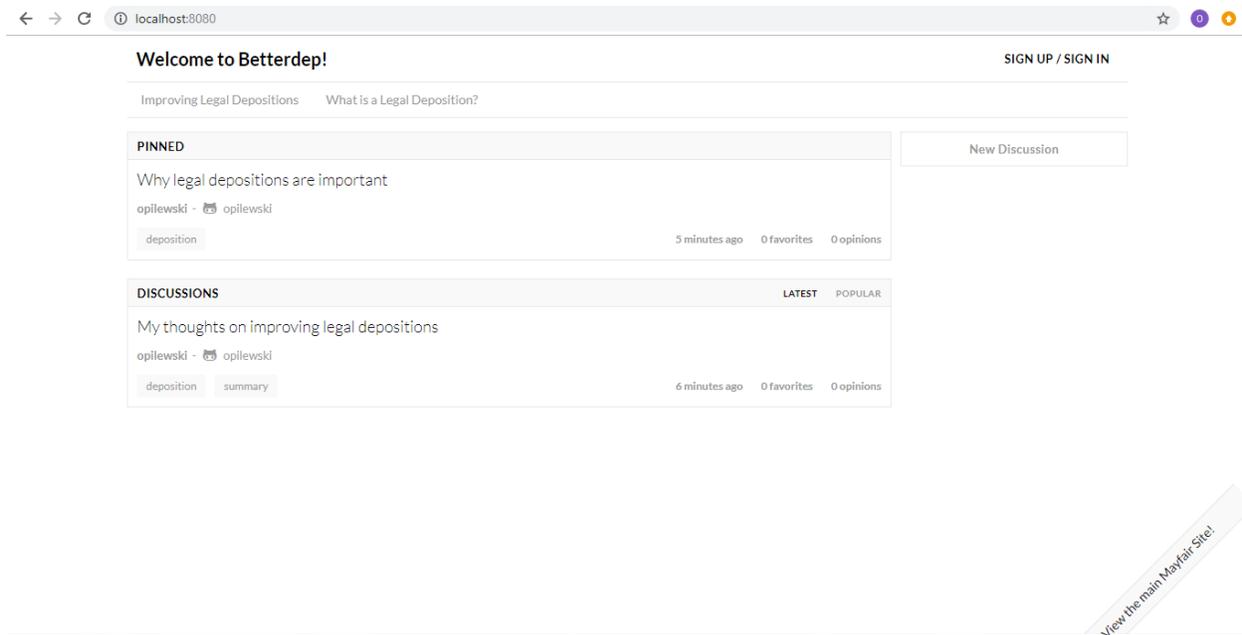


Figure 14: Homepage for Betterdep

Users have the ability to either sign up or sign in. Upon clicking the sign up or sign in button, users will be prompted to log in through GitHub. We used GitHub as we wanted some form of authentication given the limited time we had to work on this website. However, this can easily be changed by either deleting the verification process and storing user accounts in the database, or by using another verification process such as email verification. Users can click the link in the bottom right of the page to open a separate window displaying the Mayfair Project homepage (<http://mayfairproject.com/>). Users can view the different forums by clicking the forum names found under the “Welcome to Betterdep!” logo as shown in Figure 14. Upon clicking the forum name, the posts from that forum will be shown, and if necessary, users can scroll down to view more discussions. Figure 14 shows the two posts already created under the “Improving Legal Depositions” forum. Users can click the “New Discussion” button on the right of the screen to add their own discussion post to the forum. A screenshot of this process is shown in Figure 15.

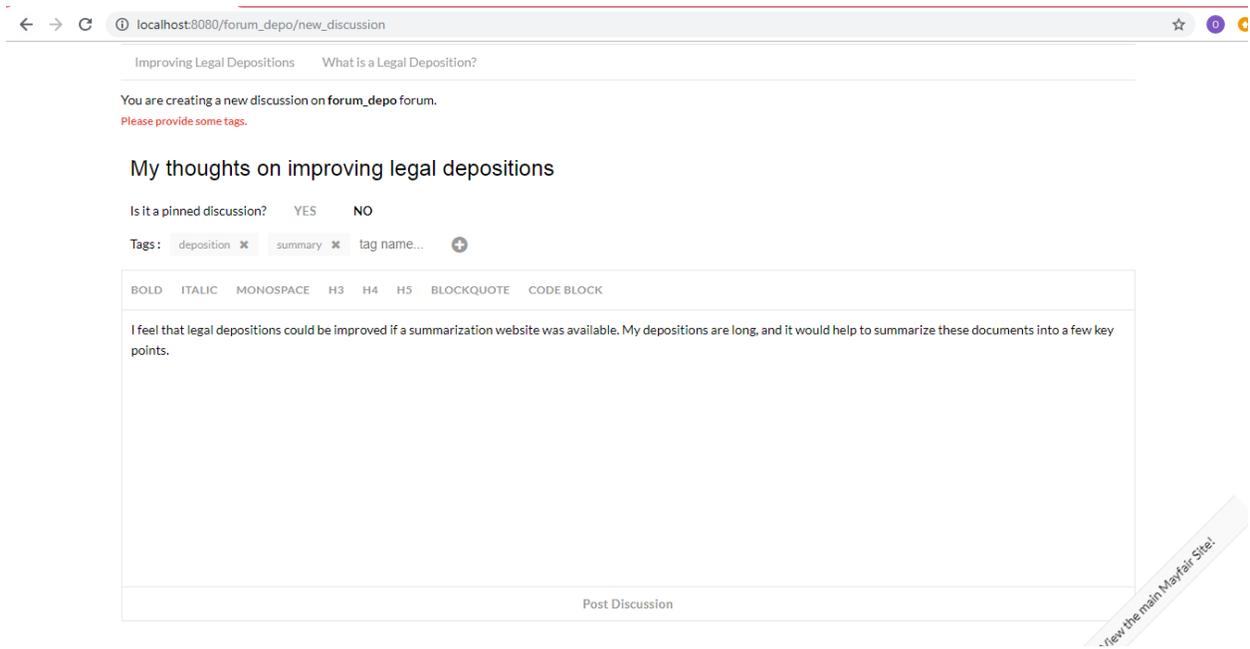


Figure 15: View of Creating a Discussion Post

Once a post has been uploaded, other users can view it. See Figure 16 for a view of what it looks like to view a post that has already been uploaded.

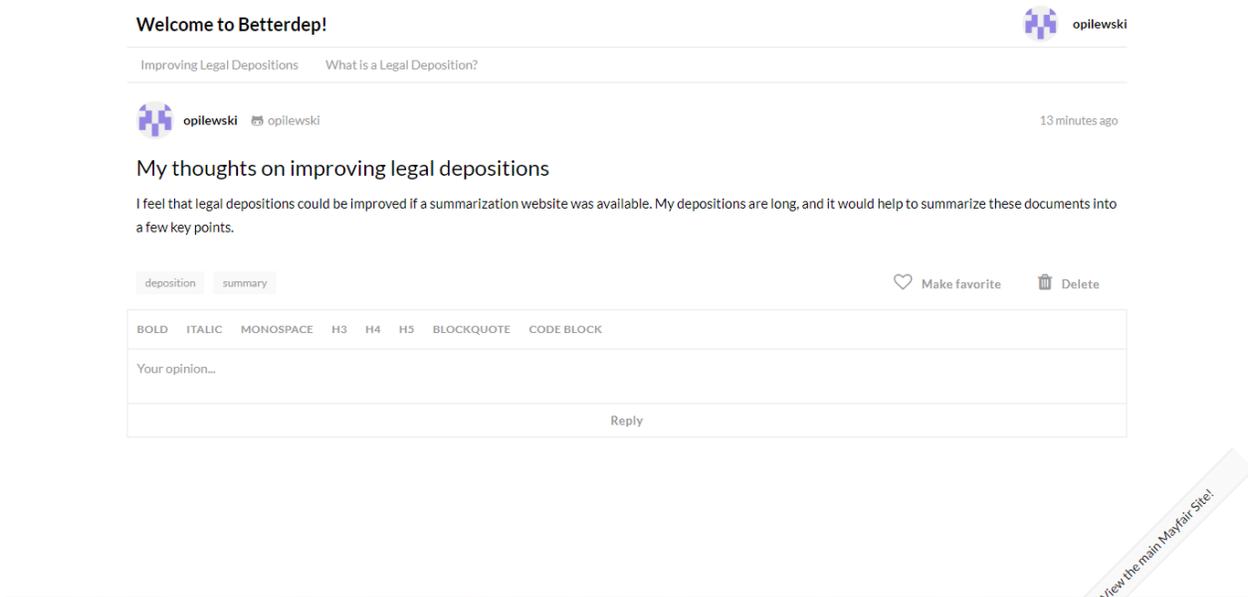


Figure 16: View of an Uploaded Discussion Post

Users can also respond to discussion posts from others and voice their opinion. In addition, a post can be marked as a favorite, or deleted by the user who posted it.

Finally, by clicking the username in the top right, users can view their Profile as well as discussion posts they've uploaded, as shown in Figure 17.

The screenshot displays a user profile for 'opilewski'. At the top, there is a 'Welcome to Betterdep!' message and a user profile picture. Below this, there are navigation links: 'Improving Legal Depositions' and 'What is a Legal Deposition?'. The main content area features a 'DISCUSSIONS' section with two posts:

- My thoughts on improving legal depositions**: Includes tags 'deposition' and 'summary', and statistics: 'a minute ago', '0 favorites', '0 opinions'.
- Why legal depositions are important**: Includes tag 'deposition', and statistics: 'a few seconds ago', '0 favorites', '0 opinions'.

A diagonal banner in the bottom right corner reads 'View the main May Fair Site!'.

Figure 17: Viewing User Account Information

6. Developers' Manual

6.1 Mayfair (Main)

The Mayfair Project main page was written in HTML with the help of Bootstrap and jQuery. All linking for this is defined in the heading of each individual HTML header.

File System & Implementation

➤ CSS

- All styling CSS files are located under this directory. Bootstrap and jQuery documents are here as well.
- Style.css acts as the main file for all our styling needs.

➤ Fonts

- Contains two directories with font information for unsupported browsers.

➤ Images

- All JPGs and PNGs are stored under the images directory. Linking from HTML files on the root can be via:
- ```

```

##### ➤ JS

- JavaScript information is stored in various files here similar to the CSS directory. main.js contains the majority of the animations for the website. Additional framework files are stored in the directory as well, including bootstrap and jQuery UI elements that should not be modified

##### ➤ index.html

- **Important div classes:**
  - `<div class=site-mobile-menu>`
  - Handles a small menu option that appears only when the site window is resized past a certain threshold, aka is being displayed on a mobile device/tablet.
  - `<header class="site-navbar bg-white js-sticky-header site-navbar-target" role="banner">`
  - Header section is defined here. Our navigation buttons can be highlighted when we hover over them. When clicked, the site will scroll down to the section you selected.

- `<div class="col-12 col-md-10 d-none d-xl-block">`
  - The sections are defined here. `href="#NAME"` where `NAME` is the the ID of the class we desire to scroll to.
- `class="site-blocks-cover overlay"`
  - First section of the site, which can be called the "welcome". It contains a placeholder an image. Imagine can be changed using the following line: `style="background-image: url(images/NEWIMAGE.jpg) "`
  - `<div class="site-section bg-light" id="about">`
  - A small about section with a paragraph of introductory information for any potential clients. The title can be modified using `<h2 class="section-title mb-3">About Mayfair</h2>` and everything below it is just a paragraph `<p></p>`. After the paragraph of introductory we have 2 subsections that contain an image and ideational information about what Mayfair is. `<div class="bg-white py-4">` and `<div class="bg-white py-4 mb-4">` Similarly to the others images can be changed by modifying the reference using `img src="images/NEWIMAGE.jpg"`. And text is wrapped automatically under `<p></p>`.
  - `<div class="site-section border-bottom" id="team-section">`
  - Each team member is held using a `class="col-md-6 col-lg-4 mb-5 mb-lg-0"` tag. Their image is linked to their own individual HTML file that has additional information about the team member. New people can be made by simply copying the section and body contents. All that needs to do be done after that is modify the image and body contents to match the person. The site allows for 3 people per row, unlimited columns are allowed.
  - `<div class="site-section bg-light" id="contact-section">`
  - The contacts field allows for people to get in touch with Mayfair. After all the information is filled out an email gets created. Please do not modified unless needed.
  - `<footer class="site-footer bg-white">`
  - Acts as a footer section to the site. This one is actually copied and pasted between all the other HTML files and should look identical other than the navigation section under the "Quick Links" area. Under `<div class="col-md-4">` we have the social media links, all referenced via `href`.

## 6.2 Esumry

The Esumry page was written in the framework of Angular.js and the design of Material with the help of Bootstrap.

## Setup

You will need to install Visual Studio Code, Node.js, and Git. Make sure that Git and Node.js are added to your environmental variable PATH. You will need to request access to the Esumry repository on Github. Open Visual Studio Code and in the terminal console (bottom right), enter “`git clone <ssh/url-of-Esumry-repository>`”. After, go into the Esumry directory by entering “`cd Esumry`”. Then, enter “`npm install`” to install all the dependencies in the package.json file. With all this completed, you should be able to enter “`ng serve -o`” to host the site on your localhost and have a developer environment available to you for testing. If you run into any problems, please refer to this [Youtube Video](https://www.youtube.com/watch?v=u679SQsfRVM) (<https://www.youtube.com/watch?v=u679SQsfRVM>).

## Documentation (IMPORTANT)

Angular Material Bootstrap is great for the services it provides, the online documentation, and the help located on stackoverflow. Please refer to the [documentation](https://mdbootstrap.com/docs/angular/) (<https://mdbootstrap.com/docs/angular/>) and YouTube video(above) on how to implement and incorporate new things into the project. We use Typescript which is very similar to JavaScript, except it better supports for object-oriented programming. You are still able to write in JavaScript in Typescript files (ts).

## Highlights

- Esumry/src/styles.scss
  - This file is the main styling file. This is a Sass file, such that it supports scss and also regular css if you choose to do so.
- Esumry/src/index.html
  - This file handles all the header tab information. If you want to change the title that appears on the tab or add new dependencies (scripts/styling), you can do that here. To change the tab icon, just overwrite favicon.png with the new image (make sure to keep the name of the file as the same).
- Esumry/src/app/app.module.ts

- This file handles the angular material objects that you import for your project, refer to the YouTube video.
- Esumry/src/app/app.component.ts
  - This file handles all your global variables, functions, and API calling. Please refer to the javadocs on the file to understand the variables, API call, and methods.
  - For when you finish finalizing summarization methods, you can call upon the selector by “<HTMLInputElement>document.getElementById('fileSelector')” and interacting with it like a usual HTML element. You will need to call upon the information in the method get\_summarization() and send the method as a param/inside the form data when you make the api call.
- Esumry/src/app/app.component.html
  - This file handles all the HTML that is located in the body element.
  - Important notes:
    - Some of the styling of the HTML elements can be given by adding class names to the element. To do this, please refer to the MDB documentation page.
    - You can reference global variables in the app.component.ts file by “{{ variable\_name }}”
    - To reference methods in the app.component.ts file for html, use “(click)=<method-name>()” instead of the usual onclick html method.
    - <footer> element
      - The location of the copyright and social media account links.
      - To replace the links to the company social media accounts, just replace the href value with the desired URL.
      - To add/change the icon, refer to the MDB documentation for the icons.
    - Summarization Method
      - This selector is located in the <select> element with the id (sumMethod).

- You can add other options by adding a child `<option>` element to the `<select>` element. The innerHTML for the `<option>` element is the text that is display in the dropdown. The value attribute is the value that is retrieved when you call upon the element in JavaScript. This value can be a string or some number index.

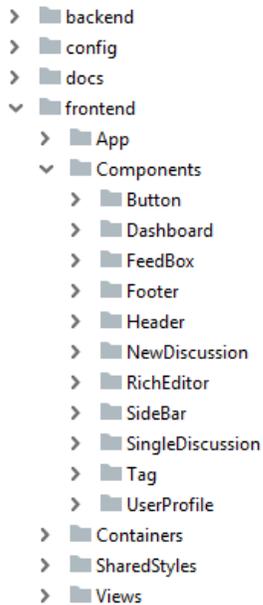
## 6.3 Betterdep

The Betterdep website is contained in .js and .css files, and is written in HTML, css, and JavaScript. The files are broken up into directories to make it easier to change and edit code and know what specific page will be affected. Primarily, there are folders called front end (changing the HTML elements and what the website looks like) and backend (controlling the creation of users and forums).

### File System & Implementation

**Frontend:** All important styling aspects are located under this folder. Under the frontend folder, one of the more important folders is Components. Every folder under the Components section is labeled according to what elements the files within control. For example, the Header folder changes the Logo, Navigation Bar, and User Menu. A screenshot of the organization for the frontend of the project can be found in Figure 18.

**Backend:** The backend of the website that handles forums and discussion posts can be found in this folder. Within the entities folder, there are marked folders for the JavaScript files controlling users, discussion, forums, and opinions.



**Figure 18: Organization of the Front End of the Betterdep Website**

For each element, there is an `index.js` file and a `styles.css` file. The `index.js` file includes the necessary HTML code to display the element on the website. The `styles.css` file controls some of the styling aspects of the element such as color, width, and height.

## Highlights

- `frontend/App/App.js`
  - This file controls, among other things, the link to the Mayfair Project homepage in the bottom right of the screen.
- `frontend/App/styles.css`
  - This file controls the entire styles for the App folder. The main components of this `.css` file are the stylings for the link to the Mayfair Website in the bottom right of the screen.
- `frontend/Components/Header/Logo/index.js`
  - This file controls the text in the top left of the page. An image object can be added in the HTML code if a logo is developed for the Betterdep website, but currently we display “Welcome to Betterdep!”
- `public/favicon.ico`

- We generated this favicon by using a screenshot from the Mayfair Project home website at [mayfairproject.com](http://mayfairproject.com). This favicon is displayed in the tab in user's browser and can be changed if a different logo is created for Betterdep.
- `config/credentials.js`
  - This file will need to be changed by developers based on the GitHub Client ID as well as their GitHub Client Secret after registering this app on GitHub. In addition, the GitHub Callback URL is the URL that will be loaded when users authenticate their accounts with GitHub. If using a different port (such as 3030), this URL will need to be changed as well as the registered callback URL on GitHub when you register the app. Finally, the DBURL is the location of the database for storing user accounts as well as forums, discussions, and opinions. For our implementation, we used Mongo DB. Our backend is configured with four unique databases within Mongo, each serving its own primary purpose. The first three databases are (admin info, credentials, and startup log) small and contain app-level information, whereas the fourth database contains most of the relevant information posted on the site. This database is partitioned into five fundamental collections: discussions, forums, opinions, sessions, and users. Each collection's data and metadata that can be viewed within Mongo's GUI, and new collections can be added as needed.
- Local Setup
  - Refer to the README.md located in the main directory for comprehensive directions regarding the creation and set up of a local instance

## 6.4 GitHub

Mayfair main: <https://git.cs.vt.edu/benitez/mayfairv2>

Esumry: <https://github.com/chea97/Esumry>

Betterdep: <https://github.com/opilewski/BetterDep-Final>

## 6.5 Temporary URLs

Mayfair main: <http://www.mayfairprojectdeliverable3.com.s3-website-us-east-1.amazonaws.com/>

Esumry: <http://www.esumrydeliverable.com.s3-website-us-east-1.amazonaws.com/>

Betterdep: <http://ec2-54-86-217-209.compute-1.amazonaws.com:3030/>

## 6.6 Deployment Guide

To access AWS S3 buckets and EC2 instance, you must login using the given AWS account information.

To create a new S3 bucket, please follow reference [10]. To access S3 buckets, search S3 from AWS Management Console, click on the link and it will redirect you to S3 buckets page. Mayfair (main) and Esumry are stored in [www.mayfairprojectdeliver3.com](http://www.mayfairprojectdeliver3.com) and [www.esumrydeliverable.com](http://www.esumrydeliverable.com) bucket, both buckets are set to public so that all users can view the hosted websites. To change the contents of the buckets, simply click into the buckets and replace the files that have been changed. I suggest to clone the files from Git repositories and make changes on local machines first before uploading it to S3.

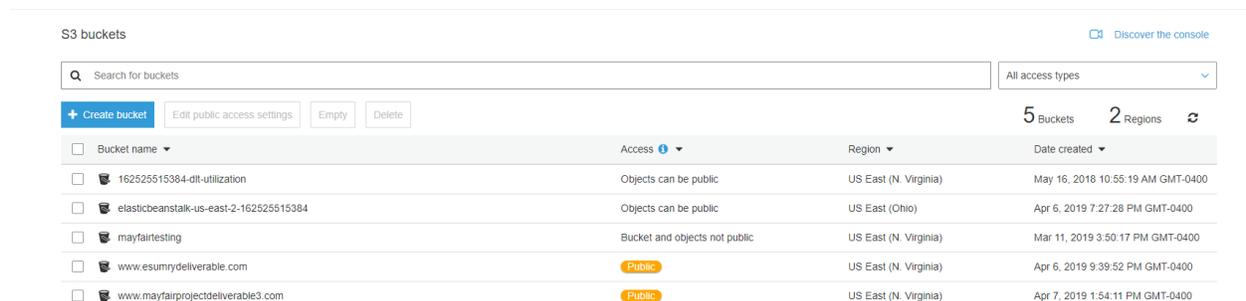
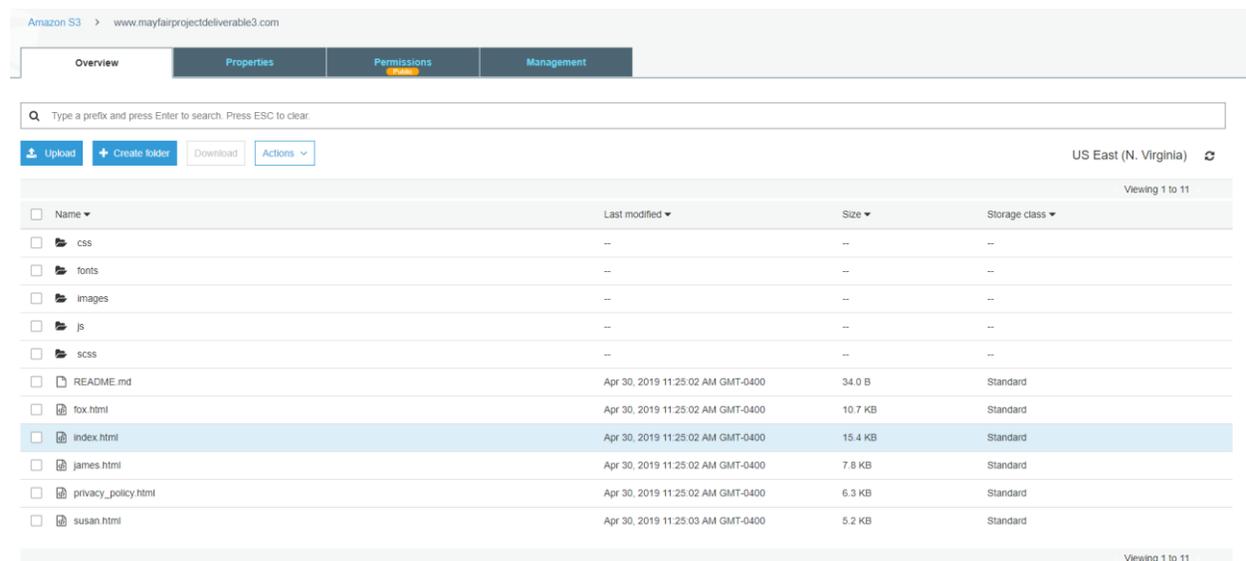


Figure 19: AWS S3 buckets page



### **Figure 20: AWS S3 bucket content page**

To make changes to Esumry, you need to clone the Git repository and run *ng build* command after you made changes. This command will generate a dist folder, simply delete all contents in the Esumry bucket and replace it with the content in the dist folder.

To create an new EC2 instance, please follow reference [9] step 2. To log into Betterdep EC2 instance using SSH, you need betterdep.pem file to use the following command:

```
ssh -i path/to/betterdep.pem ec2-user@ec2-54-86-217-209.compute-1.amazonaws.com
```

Once you logged in, there's a folder named BetterDep-Final linked to Betterdep Github repository. Any changes you made to the repository can be updated to EC2 instance using *git pull* command inside BetterDep-Final folder.

## 7. Future Plans

If you decide to make this application a learning module, you can add a new `container class` before the footer and style/organize the information using MDB. For the paid service avenue, you will have to tie this application to an online database to store user information/accounts. You will need to think about security (hashing passwords and credit card information). You will need to pay for a credit billing service (PayPal). Is it a one-time payment for each use/amount of uses or a monthly subscription? If it is the latter, then you would have to save their banking/credit card information into the database, securely. You will also have to apply for a security certificate to change the URL from an HTTP to an HTTPS. This is for the user to be able to trust the service and that it is not a scam. The main concern for a paid service as you can tell is the security of the service.

## 8. Lessons Learned

Throughout a project process, communication can be a key point in delivering a product. Good communication allows for a transparent flow of information, with no ambiguity, helping nurture a well-rounded and thorough product. One lesson that we learned while working on this project is that communication, especially at distance, can be challenging. Coordinating schedules, resources, and most importantly thoughts is difficult virtually, and setting up reliable tools and schedules in order to communicate efficiently and clearly is important to creating a product that exceeds expectations.

In addition, it is vitally important to begin this communication process early in order to avoid time loss. We began communications with our client later than hoped and reached out to other developers on the website far later than we should have. As a result, we had to shift away from the existing site and derive another solution that fit both the project and delivery date. While we believe we achieved this goal, we would have contacted the existing site's developer earlier in the semester if given another chance at developing this project.

## 9. Acknowledgements

- **Special thanks to Mayfair Group LLC. for providing funding for the Department of Computer Science at Virginia Tech**

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Mrs. Chapman's professional experience has spanned banking, commercial real estate, elementary education, and higher education. She helped start a successful commercial real estate company in Norfolk, Virginia, which was eventually acquired by a large regional real estate company.

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# 10. Appendix A: VTURCS poster



## The Mayfair Project

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### Background

The Mayfair Group LLC. is a startup that focuses on documentation summarization, specifically legal deposition summarization. Our project focuses on building the frontend for company's three websites, MayfairProject, Esumry, and Betterdep, so that it provides the users an engaging and pleasant experience. We adapted various web development frameworks such as Bootstrap, Angularjs, and Typescript because each website serves a different mission for the company. Lastly, we hosted these websites on Amazon Web Service EC2 server to guarantee secure and scalable traffic.

### **Goal: Create 3 websites, Mayfair(Main), Esumry, Betterdep**

#### Mayfair (Main)

**Description:** The landing hub for the accelerating Mayfair startup. The site would help build a rapport with visitors and showcase their ability in their respective field.

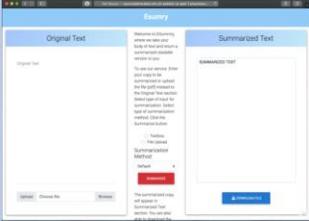
**Result:**



#### Esumry

**Description:** Esumry is a web application currently open to the public by the Mayfair Group LLC. This application provides the service of intaking huge bodies of text and returning a summarized, readable text to the user. The user is able to upload files and download the summarized text as pdfs and is able to choose the summarization methodology.

**Result:**



#### Betterdep

**Description:** The Betterdep site is a more robust platform than initially expected. Not only does it contain a front-end framework and corresponding databases to handle input, it also makes use of user authentication, secure account creation, and file sharing

**Technologies:**

- Amazon Web Services (EC2 Hosting)
- Flask Web T. L.
- Alembic (Database)
- SQLAlchemy
- Jinja
- Boto 3

**Setbacks:**The encompassing nature of the project makes changes to front-end elements more difficult to accomplish due to relationships with the backend. In order to make significant changes, elements within the database configuration, as well as corresponding back end and styling elements must be changed.

#### Conclusion

Mayfair is a new exciting legal & academic startup - with the aid of the CS 4624 developer team, major strides were made in accelerating the company's growth. As an open-source project, the developer team provided a stable framework and foundation for future maintainers of the software for two of the sites. Unfortunately with time restraints and setbacks, we were unable to complete Betterdep, but this is not a surprise in a professional workplace.

#### Acknowledgements

- The Mayfair Group LLC (James Chapman - CEO & Cofounder, Susan Chapman - CFO & Cofounder), for giving us this valuable work experience
- Our faculty advisor, Dr. Edward Fox, for providing his experienced insight and critiques.

Above is the poster our team presented at VTURCS. We split the information up into three main sections, explaining each site independently. While the majority of the poster reflects our project accurately, it should be noted that the design for Betterdep was changed after this presentation was given. During the presentations we gave, we explained why we chose to diverge from the original implementation, some of which is listed within the poster. We also discussed why the framework we chose would be better suited for the particular task we were accomplishing. We believe our presentation at VTURCS reflected well on both our group, and the Mayfair project overall.

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