



S2T Usage Documentation

S2T Triple Vision

Members:

Jacques Cloete – 44214987

Jean-Luc Begue – 40779173

Danika le Roux – 41049764

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Introduction:

We are excited to present our full-stack web application project, developed using Vue.js for the frontend and Laravel for the backend. This project aims to create a comprehensive system featuring an intuitive user interface coupled with efficient data management capabilities.

In the following guide, we will provide you with all the essential information to kick-start the project, including detailed instructions on environment setup, API route testing, and more. The document covers every step you need to follow, from installing prerequisites and configuring the environment to setting up the database and running the application.

Our primary objective is to make the setup process as seamless as possible, whether you're working locally or on a different environment. The project supports PHP 8.x, utilizes Composer for managing dependencies, and incorporates Node.js for handling frontend assets, ensuring its adaptability to various workflows.

Additionally, we recommend using tools such as Postman, which simplify the API testing process and enhance your development experience. This guide aims to equip you with the necessary knowledge to successfully deploy the application, whether you are a user looking to get started or a contributor eager to participate in the development process.

Prerequisites:

Before you begin, ensure you have the following installed on your machine:

- PhpStorm
- Composer-Setup
- Node.js
- MySQL Configurator
- MySQL Workbench
- XAMPP
- Docker Desktop Installer
- Git
- SourceTreeSetup

Backend:

Laravel is our main back-end component. It is an open-source, free web framework for creating web apps that is based on PHP. Taylor Otwell developed it with the goal of creating web applications that adhere to the model–view–controller (MVC) architectural pattern.

In order to improve the user and developer experience, it offers a variety of prebuild methods, encryption, and caching in addition to using PHP as the programming language.

Requirements:

Laravel requires the following to be installed of your local machine:

- PHP (version 8.2 or higher)
- Composer (for local development)
- Node.js (version 14.x or higher)
- npm (usually comes with Node.js)

To check your installed versions:

- For Node.js: `node -v`
- For npm: `npm -v`
- For PHP: `php -v`

Front end:

We used HTML, CSS, JavaScript, and Vue.js to build a dynamic and responsive user interface for the project's front end. We can create reactive, component-based single-page applications with Vue.js, a progressive JavaScript framework that makes managing dynamic content simpler.

While CSS ensures that the layout, design, and overall visual presentation are appealing and cohesive, HTML organizes the content of the web pages. JavaScript enhances the user experience by adding dynamic functionality and interactivity, enabling features like event handling, animations, and form validation. These technologies work together to produce a smooth, intuitive frontend.

Version control:

We used GitHub, a platform that facilitates code collaboration by offering a central repository where changes can be monitored, examined, and merged, for version control. Multiple developers can work on the project at once and we can maintain a history of changes thanks to GitHub's use of Git to manage versioning.

By making branches for various features or bug fixes on GitHub, our team was able to share code and make sure the code was current and consistent before combining it into the main branch. We ensured smooth collaboration by reviewing each other's work through pull requests, which helped to maintain code quality and prevent conflicts.

Getting Started:

Now that the local development machine is prepared, the repository can be cloned and the project can be configured.

Project Configuration:

- **Step 1: Clone the repository:**

```
git clone https://github.com/JDCloete/CMPG-323-Full-Stack-Web-App-Triple-Vision.git
cd CMPG-323-Full-Stack-Web-App-Triple-Vision
```

- **Step 2: Copy the environment file:**

```
cp .env.example .env
```

The environment file contains variables that are used to set certain configuration options across the application.

The following are important variables to note:

```
DB_CONNECTION=mysql
DB_HOST=127.0.0.1
DB_PORT=3306
DB_DATABASE=s2t_triple_vision_db
DB_USERNAME=root
DB_PASSWORD=
```

The database credentials listed below can be used to connect to the running local application and set up a DBMS. The database is called s2t_triple_vision_db, and the web application is set up to use MySQL as the database language.

- **Step 3: Install Composer dependencies:**

```
composer install
```

This installs all dependencies for Laravel and the packages that the project uses.

- **Step 4: Install npm dependencies:**

```
npm install
```

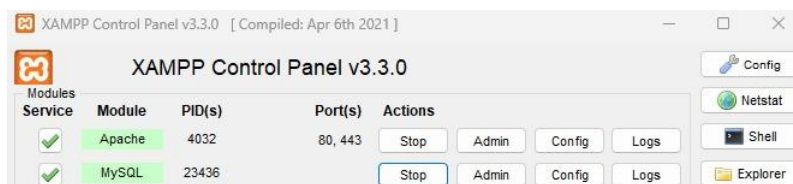
This installs all dependencies for Vue and the packages that the project uses.

Running the Application:

Now that every configuration required for the application has been finished. The time has finally come to develop the web application that will be used to fulfil our important needs.

Steps to run Application:

- **Step 1: Start your Apache and MySQL server using XAMPP:**



- **Step 2: Generate an application key:**

```
php artisan key:generate
```

The application key is necessary to run the web application and is used to encrypt sensitive data, such as user passwords or API credentials, before storing it in a database or delivering it over a network.

- **Step 3: Run database migrations and seeders:**

```
php artisan migrate:fresh --seed
```

The database will be built and the migrations will be carried out if it hasn't already been done. The database's tables are created and modified by the migrations, and sample data is then added by the seeders. The web browser should now be able to access the application at <http://localhost:8000/>, which can then be used as an endpoint for API calls.

- **Step 4: Start the Laravel development server:**

```
php artisan serve
```

Website Overview:

By giving students access to a variety of study materials, our website functions as a collaborative platform. In addition to browsing and downloading resources to help with their academic work, users can also contribute their own documents to help others. This reciprocal integration creates a collaborative learning environment where users can actively add to the expanding collection of study tools in addition to taking advantage of the resources that are already available. The system oversees the submission and approval of documents, employing a moderator review process to guarantee their quality and pertinence. In general, the website establishes a vibrant, user-driven centre for scholarly resources.

In order to use the platform, all users must register or log in, as the web application also incorporates user roles and authentication. Following authentication, the user can access their designated regions according to their duties.

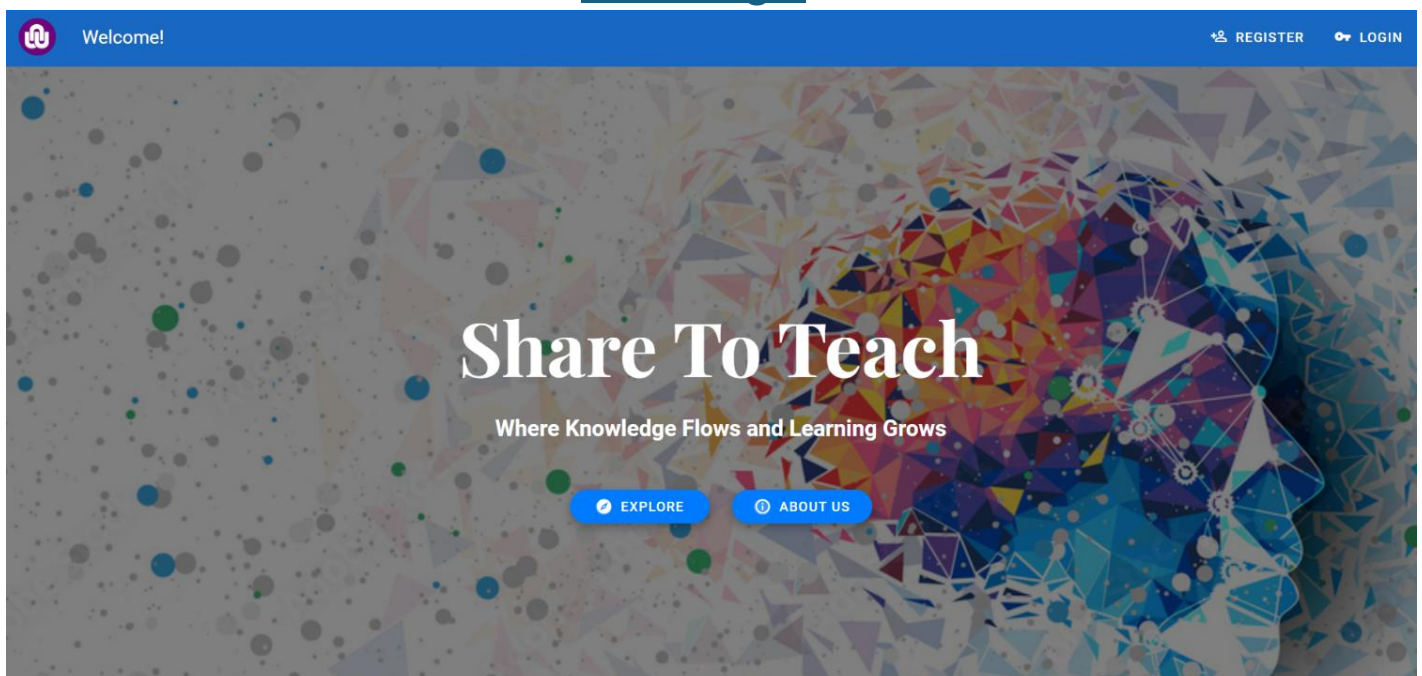
Web Application Flow:

Once a user is registered and logged in, they gain access to the application, starting on the Explore page, which serves as the landing page for all users. Here, educators can explore available documents and choose from several options to enhance their experience. They can contribute their own documents to the database, view valuable Open Educational Resources (OER), and access the contributors' section, along with the "About Us" page for more information about the platform.

Moderators have a broader scope of access, allowing them to view everything educators can see, as well as manage document submissions. This includes moderating documents to approve their inclusion in the database, addressing reported documents, and overseeing user accounts by assigning different roles as needed.

Admins possess the highest level of access, viewing everything available to moderators while having full control over the entire system. They can also analyse data generated from document uploads and user interactions, providing insights that can drive improvements and enhancements to the platform.

HomePage:



This element has a friendly interface with a toolbar for simple registration and login navigation. A visually appealing part including a dark overlay and backdrop picture with the words "Share To Teach" and the slogan are included. Buttons directing users to the Explore and About Us pages are located below. The layout keeps things cozy while emphasizing user interaction.

ExplorePage:

Document Name	Uploaded By	Uploaded Date	Type	Size (KB)	Document Rating Average	Rate	Report
Project Report	Danika le Roux	2024-10-16	pdf	12.28	1.94	1 2 3 4 5	!
Design Document	Jean-luc Begue	2024-10-16	pdf	16.27	1.00	1 2 3 4 5	!
User Guide	Jacques Cloete	2024-10-16	pdf	11.28	2.25	1 2 3 4 5	!
PDF 2	Jacques Cloete	2024-10-16	pdf	18.27	1.00	1 2 3 4 5	!
PDF 2	Jacques Cloete	2024-10-16	pdf	18.27	1.50	1 2 3 4 5	!
PDF 5	Jacques Cloete	2024-10-16	pdf	18.27	0.00	1 2 3 4 5	!
PDF 5	Jacques Cloete	2024-10-16	pdf	18.27	0.00	1 2 3 4 5	!

Users may read and search content on the Share2Teach platform using the Explore Page interface. It has search capabilities, a toolbar for easy navigation, and fast access buttons for logging in and registering. Links to a number of areas, including Open Educational Resources (OER), FAQs, and moderating assignments for users in particular positions, may be found in the left navigation drawer. A table of documents with information about the document name, uploader, date of upload, kind, size, and average rating is shown in the main content section. Document reporting and rating by users improves content management and community involvement.

ContributeFilesPage:

Upload

Drag & Drop files

Details

Document Name

Subject

Category

Relevant Academic Year

Lecturer Name

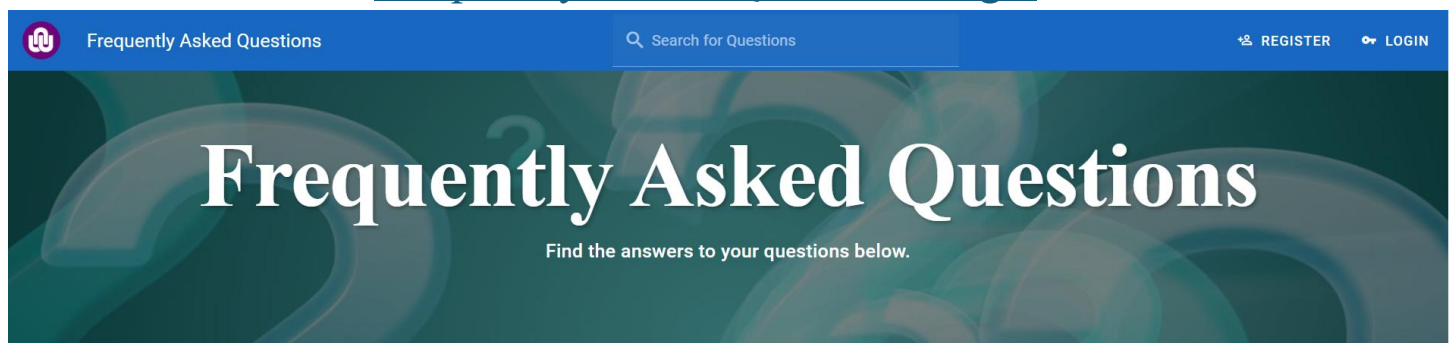
Processing

SUBMIT RESET

This page lets people post scholarly papers and other pertinent information. Three primary areas make up the layout: an upload area where files may be dropped in; a details section where details like the name of the document,

subject, category, academic year, and professor can be entered; and a processing area where upload progress and notifications are shown. Users have the option to reset the form or submit their files. The interface of the page is designed to make it easy for users to contribute and improve academic materials.

Frequently Asked Questions Page:



How do I contribute a document?

To contribute a document, click on the "Contribute" button and follow the instructions.

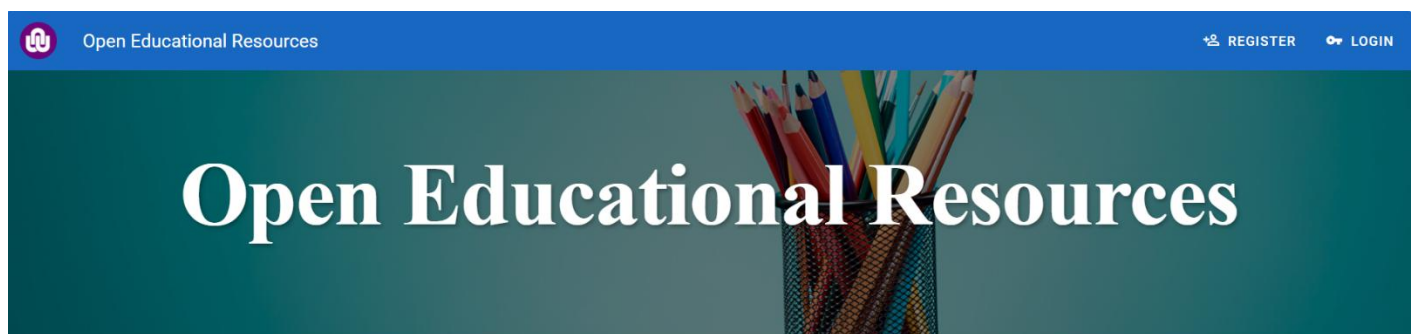
How do I report a document?

You can report a document by clicking on the "Report" button next to the document.






How do I rate a document?

Users can find the solutions to often asked questions in this component. It has a search box for instant access to particular queries and a toolbar for navigating. The header has a title, some introduction text, and a visually striking background image with a semi-transparent overlay. The FAQs list, which appears below the header, has a clear presentation of each query and its related answer for readers to peruse. The design prioritizes accessibility and user experience to make sure that the content is both aesthetically pleasing and simple to navigate.

Open Educational Resources Page:

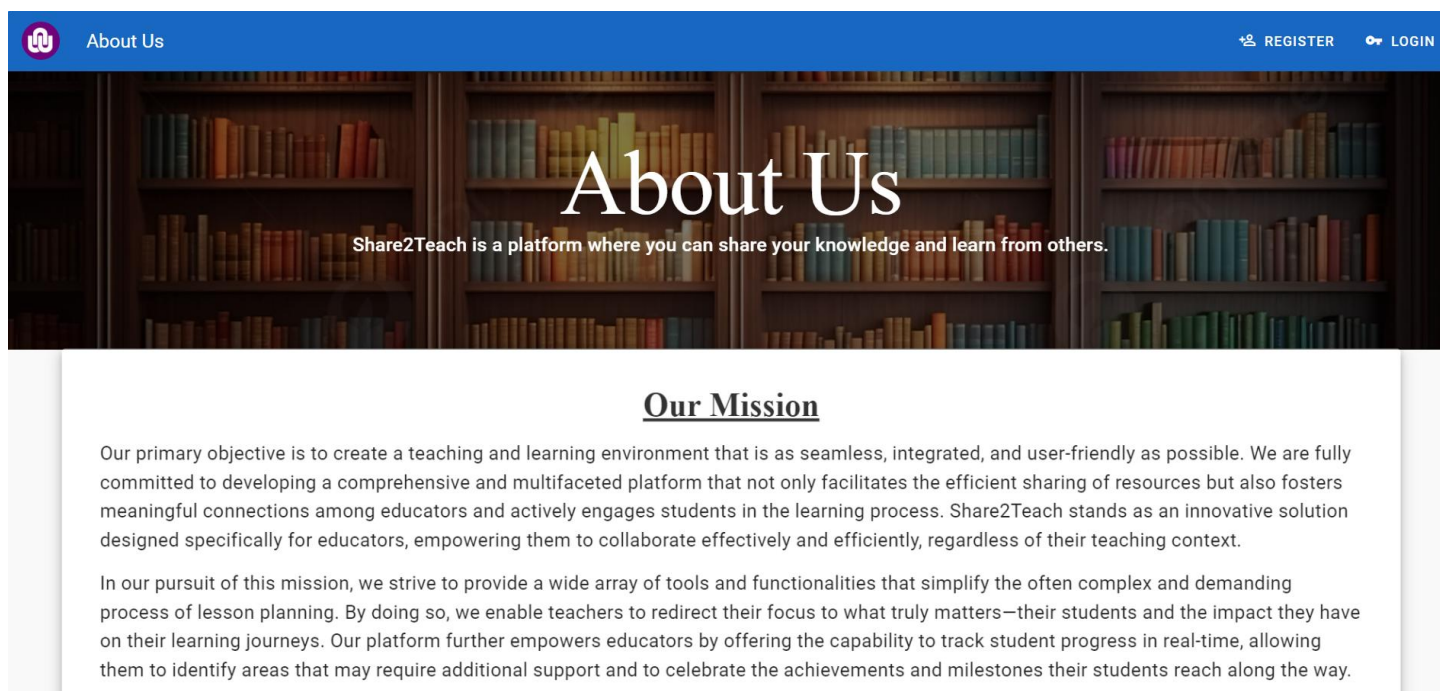


Useful Resources for Students:

-  **Khan Academy**
Free educational videos and exercises.
-  **Coursera**
Online courses from top universities.
-  **OpenStax**
OpenStax is the world's largest publisher of open education resources (OER).
-  **Studocu**
Free summaries, lecture notes & exam prep.
-  **Merlot**
The MERLOT system provides access to curated online learning and support materials and content creation tools.

Users can see and access educational resources published by other users on the OER (Open Educational Resources) website. Its user-friendly interface allows information to be downloaded, filtered, and searched, encouraging group learning and knowledge exchange. In order to increase the range of material on the site, users can also add their own resources.

About Us Page:



About Us

Share2Teach is a platform where you can share your knowledge and learn from others.

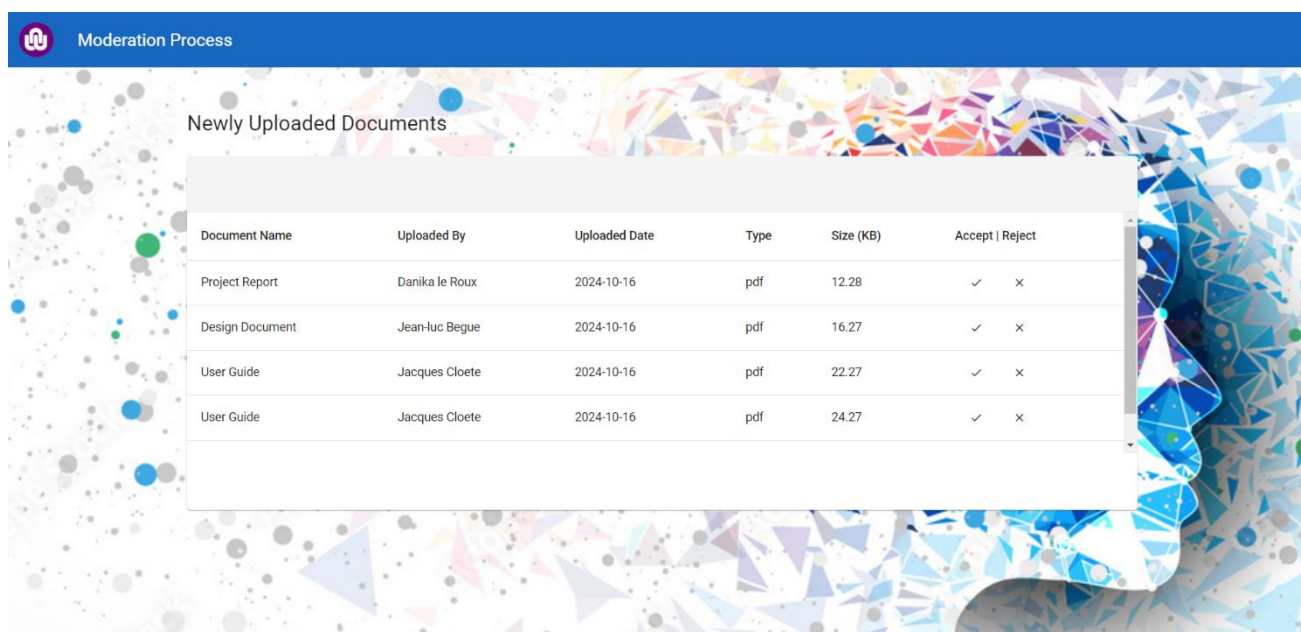
Our Mission

Our primary objective is to create a teaching and learning environment that is as seamless, integrated, and user-friendly as possible. We are fully committed to developing a comprehensive and multifaceted platform that not only facilitates the efficient sharing of resources but also fosters meaningful connections among educators and actively engages students in the learning process. Share2Teach stands as an innovative solution designed specifically for educators, empowering them to collaborate effectively and efficiently, regardless of their teaching context.

In our pursuit of this mission, we strive to provide a wide array of tools and functionalities that simplify the often complex and demanding process of lesson planning. By doing so, we enable teachers to redirect their focus to what truly matters—their students and the impact they have on their learning journeys. Our platform further empowers educators by offering the capability to track student progress in real-time, allowing them to identify areas that may require additional support and to celebrate the achievements and milestones their students reach along the way.

Share2Teach's "About Us" page provides an overview of our skilled development team and their commitment to building a platform that encourages communication and information exchange. Featuring an intuitive design, the main toolbar facilitates easy navigation for users to sign up or log in. A captivating backdrop image that embodies our goal of improving educational experiences via creativity and collaboration may be found in the header area. It highlights the creators' guiding principles, which include a love of learning and a dedication to creating a cooperative atmosphere. The portal also has a contact section with team member bios, encouraging visitors to get in touch with the developers for help and support.

Moderation Page:



Moderation Process

Newly Uploaded Documents

Document Name	Uploaded By	Uploaded Date	Type	Size (KB)	Accept Reject
Project Report	Danika le Roux	2024-10-16	pdf	12.28	✓ ×
Design Document	Jean-luc Begue	2024-10-16	pdf	16.27	✓ ×
User Guide	Jacques Cloete	2024-10-16	pdf	22.27	✓ ×
User Guide	Jacques Cloete	2024-10-16	pdf	24.27	✓ ×

The newly uploaded papers are shown on the Moderation Page for moderators to evaluate. It displays document attributes such name, uploader, upload date, type, and size in an organized manner using a toolbar and data table. Moderators have designated action buttons that allow them to approve or reject documents.

Moderate Reported Page:

The screenshot shows a web interface titled "Moderation Process". Below the title bar, there is a section labeled "Reported Documents". This section contains a table with the following data:

Document Name	Uploaded By	Uploaded Date	Type	Size (KB)	Accept Reject
Project Report	Danika le Roux	2024-10-16	pdf	12.28	✓ ×
Design Document	Jean-luc Begue	2024-10-16	pdf	16.27	✓ ×
User Guide	Jacques Cloete	2024-10-16	pdf	22.27	✓ ×
User Guide	Jacques Cloete	2024-10-16	pdf	24.27	✓ ×

Moderators can handle reported documents during the moderation process by using the Moderate Reported Page. A table of reported documents with information on the document name, uploader, upload date, type, and size is displayed. Using action buttons, administrators can accept or reject papers. The page may dynamically filter the document list depending on user input and has a back navigation option. It also includes ways to get document data and modify or remove reports as needed.

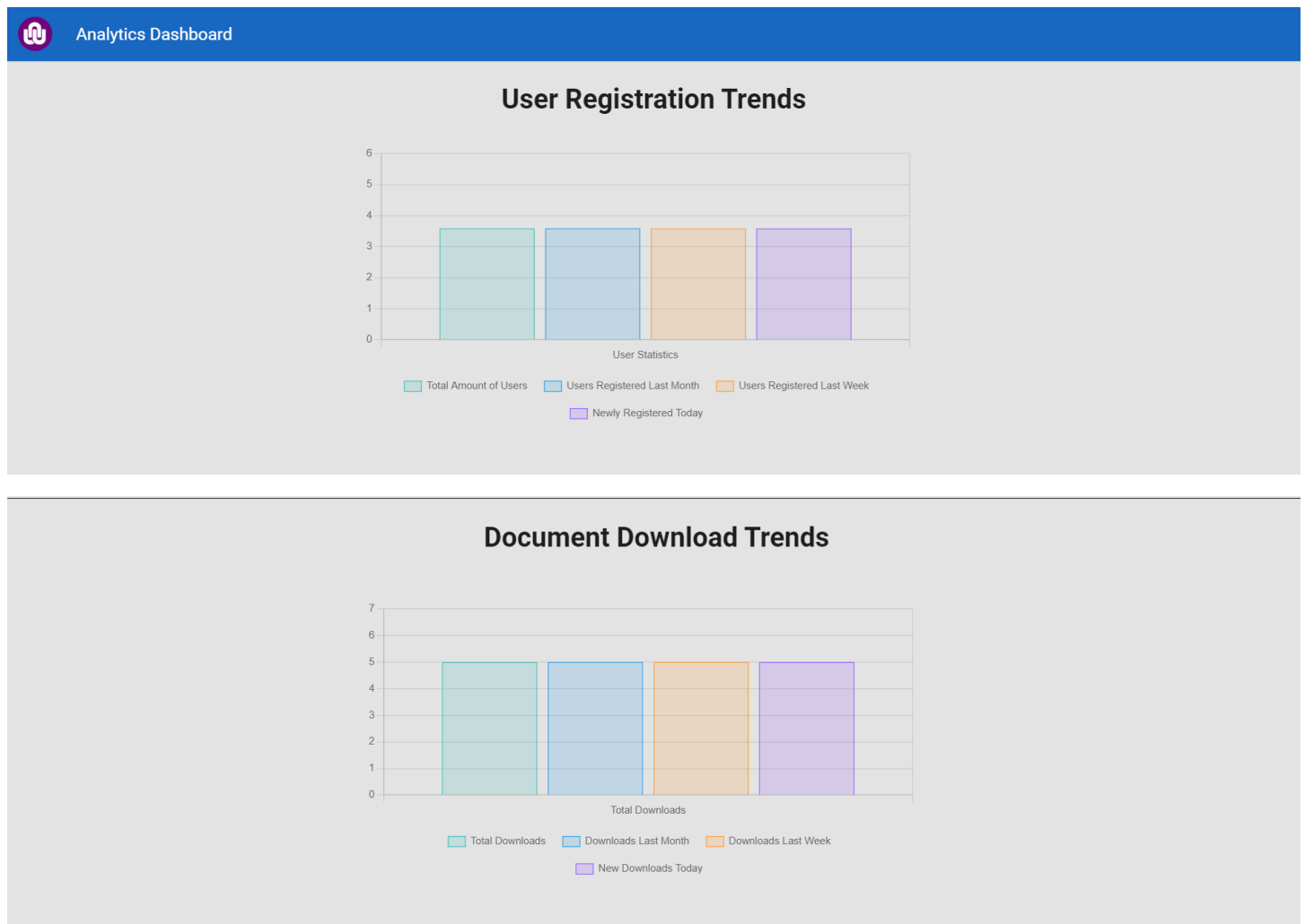
Moderate Users Page:

The screenshot shows a web interface titled "Moderate Users". Below the title bar, there is a section labeled "Escalate User Privileges". This section contains a table with the following data:

Name	Surname	Role	Educator	Moderator	Admin	Delete
Danika	le Roux	Admin	👤	👤	👤	👤
Jean-luc	Begue	Admin	👤	👤	👤	👤
Jacques	Cloete	Moderator	👤	👤	👤	👤
Jacques	Cloete	Educator	👤	👤	👤	👤

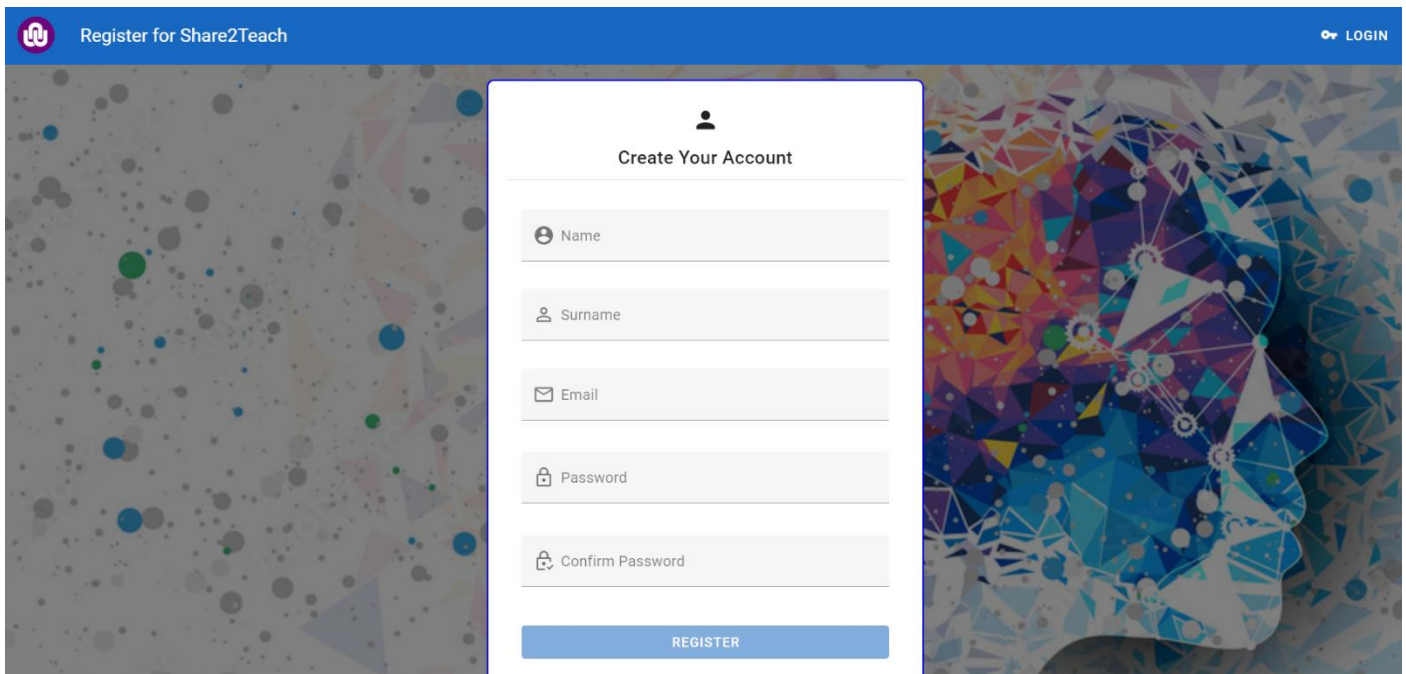
Administrators have the ability to control user responsibilities and privileges using the Moderate User Page. It has a table with user details like name, last name, and role. Admins have the ability to remove users and raise or lower user credentials to Educator, Moderator, or Admin via action buttons. To make the user experience better, the page provides loading and error statuses.

Analytics Page:



The Analytics Page has a major toolbar that displays the term "Analytics Dashboard" and a logo, and it has a responsive layout. It has sections that employ bar charts to show trends in user registration, document downloads, document flow analysis, and reported document data. These charts provide a clear picture of user and document interactions on the platform as the data is dynamically updated depending on analytics data retrieved via an API.

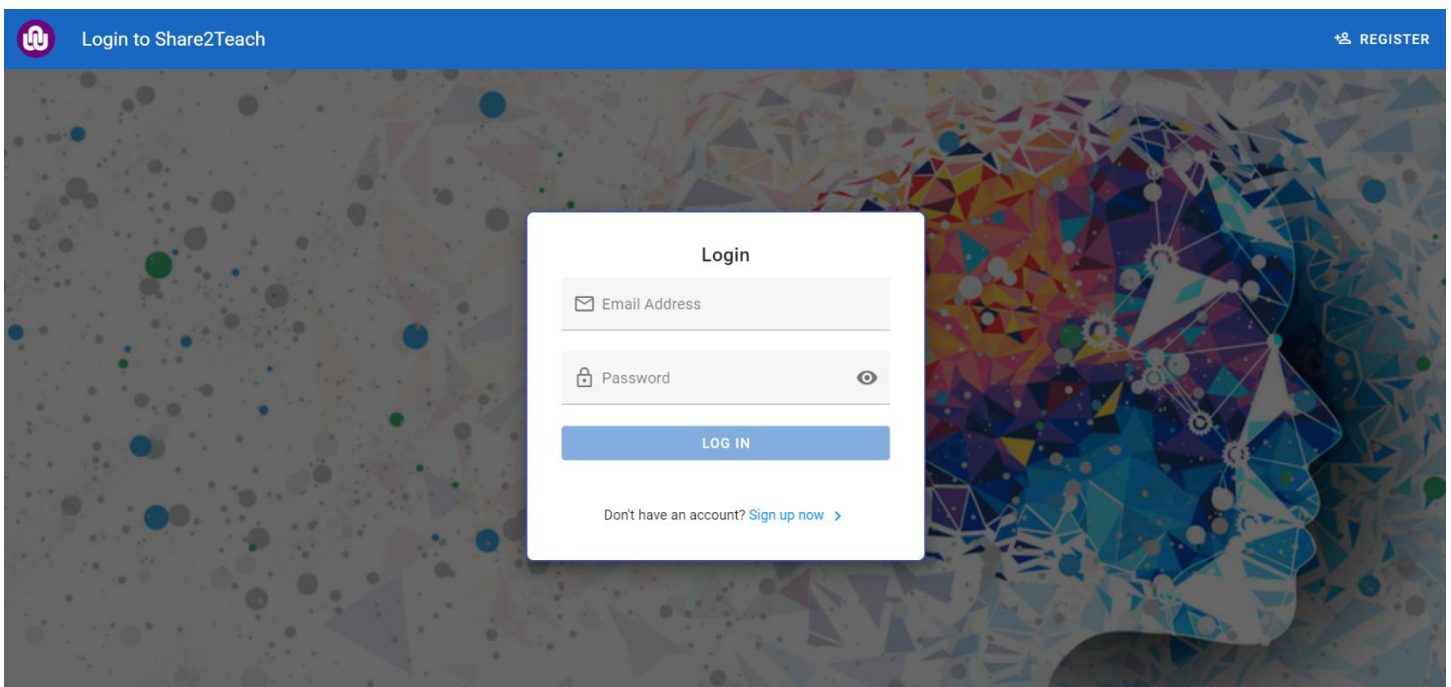
Registration Page:



The registration page features a blue header with the Share2Teach logo and the text "Register for Share2Teach" on the left, and a "LOGIN" link on the right. The main content area is a white form titled "Create Your Account" with a user icon. It contains five input fields: "Name", "Surname", "Email", "Password", and "Confirm Password", each with a corresponding icon. A blue "REGISTER" button is positioned at the bottom of the form. The background is a dark grey with colorful geometric patterns and a stylized human head silhouette.

New users can register for an account on the Share2Teach platform via the Register page. Users are able to provide their email address, password, confirmation password, and last name. The page has validation rules such as verifying if an email is already used and to make sure all fields are filled in correctly. Examples of these rules include verifying that the passwords match and are at least the required length and checking to see whether the email format is legitimate. Users are sent to the login page after completing the registration successfully.

Login Page:



The login page features a blue header with the Share2Teach logo and the text "Login to Share2Teach" on the left, and a "REGISTER" link on the right. The main content area is a white form titled "Login" with a user icon. It contains two input fields: "Email Address" and "Password", each with a corresponding icon. A blue "LOG IN" button is positioned below the fields. At the bottom of the form, there is a link: "Don't have an account? [Sign up now](#) >". The background is a dark grey with colorful geometric patterns and a stylized human head silhouette.

Users can access their Share2Teach platform accounts using the Login Page. It has a centralized login form and a toolbar for easy navigation. Users may input their password and email address, and validation rules make sure the fields are filled in accurately. Until all necessary data is submitted, the login button remains inactive. After submission, the page uses an API call to validate credentials. If the call is successful, visitors are sent to the explore page and their role ID is passed as a query parameter. If there are any login-related errors, a snackbar will show error messages.