A red shield with black text

Description automatically generated

CST2120

Web Applications & Database Design

Coursework 2

Name: Rian Qadir

Student ID: M00975827

Contents

[**Introduction:** 3](#_Toc163794305)

[**Key Features:** 3](#_Toc163794306)

[**Testing:** 4](#_Toc163794307)

[**Security, Privacy, and Legal Considerations for the Website:** 6](#_Toc163794308)

[**Screenshots:** 7](#_Toc163794309)

## **Introduction:**

"Connected" is an innovative social media site for gamers that seeks to transform online interaction. Through brief postings, or "status," this microblogging platform enables real-time interactions and promotes the rapid and lively exchange of ideas and updates. Individual status and followings are displayed on user profiles, and a carefully curated newsfeed keeps users up to date on the most recent posts from the people they follow. With features like liking status and participating in conversations through comments, the platform places a strong emphasis on fostering relationships through follower interactions. "Connected" offers an ideal user experience on a variety of devices thanks to its elegant and responsive design. The front end uses HTML, CSS, and JavaScript, while the back end uses jQuery for faster development. MongoDB is used by the back end, which is written in JSON and runs on Node.js, to store and retrieve data with ease. The user and post collections in the database schema store relevant user data and status content. As "Connected" develops, it promises to revolutionize social networking on the internet by providing a distinctive and enriching user experience while closely following project specifications.

## **Key Features:**

* From our intuitive interface to our robust privacy controls, every aspect of CONNECTED is designed with our users in mind. We prioritize user experience above all else, ensuring that you can navigate our platform seamlessly and securely.
* Whether you're a budding entrepreneur, an amateur photographer, a fitness enthusiast, or a lover of all things culinary, you'll find your tribe on CONNECTED. Our diverse communities cater to a wide range of interests and passions, allowing you to connect with like-minded individuals who share your enthusiasm.
* Dive into a world of captivating content curated by our passionate community members. From thought-provoking articles to stunning visual creations, there's something for everyone on CONNECTED. Explore, engage, and be inspired by the rich tapestry of stories waiting to be discovered.
* Sign up and become a part of our growing community. Registering with CONNECTED enables you to create a personalized profile and start sharing your stories.
* Securely access your account with our robust login system. Stay connected effortlessly and enjoy uninterrupted browsing.
* The svelte and responsive design of "Connected" guarantees the best possible user experience on a range of screens and devices.

## **Testing:**

The HTML page of the project was successfully validated without any errors. The markup structure follows the recommended standards, and all elements are properly nested and formatted. The validation report screenshot is provided below:

A screenshot of a computer

Description automatically generated

Similarly, the CSS code written for the project was also validated without any errors. The stylesheet adheres to CSS standards and conventions, with proper syntax and formatting. Third-party CSS was excluded from validation, as per the project requirements. The validation report screenshot is provided below:

A screenshot of a computer

Description automatically generated

JavaScript testing:

A screenshot of a computer

Description automatically generated

## **Security, Privacy, and Legal Considerations for the Website:**

Ensuring the security, privacy, and legal compliance of our website is paramount to protect user data and maintain trust. In terms of security measures, robust authentication mechanisms, such as password hashing and authentication, have been implemented to safeguard user credentials from unauthorized access. Additionally, input validation techniques are employed to mitigate the risk of injection attacks, while data encryption protocols like HTTPS ensure secure communication between clients and servers. Concerning privacy protection, data minimization practices are followed to collect only necessary user data, and explicit user consent will be obtained before processing any personal information. Anonymization and pseudonymization techniques will apply wherever possible to enhance privacy, and a comprehensive privacy policy outlines data collection, storage, and usage practices. In terms of legal compliance, adherence to data protection regulations such as GDPR and CCPA is ensured by providing mechanisms for user consent, access, correction, and deletion of personal data. Intellectual property rights are respected. Clear terms of service and disclaimers will be drafted to establish guidelines for website usage, and accessibility compliance with WCAG standards ensures equal access for individuals with disabilities. Moving forward, several steps can be taken to further address these issues. Regular security audits and vulnerability assessments should be conducted to identify and mitigate emerging threats and vulnerabilities. User education initiatives can be implemented to raise awareness about online security best practices and empower users to protect their data. Continuous monitoring systems should be established to detect and respond to security incidents promptly, enhancing threat detection and mitigation capabilities. Phishing emails or messages disguised as legitimate communications can trick users into divulging sensitive information like passwords or financial details. Implementing email authentication protocols like SPF, DKIM, and DMARC can help verify the authenticity of incoming emails and reduce the risk of phishing attacks. Moreover, user education and awareness campaigns can teach users how to identify phishing attempts and avoid falling victim to such scams. Legal consultation should be sought to stay informed about evolving legal requirements and ensure ongoing compliance with relevant laws and regulations. Moreover, integrating privacy considerations into the website's design and development process from the outset fosters a privacy-aware culture and minimizes privacy risks proactively.

In conclusion, our commitment to security, privacy, and legal compliance underscores our dedication to providing a safe and trustworthy online experience for our users. By implementing robust security measures, respecting user privacy, and adhering to legal requirements, we aim to mitigate risks and build trust with our audience. Continued vigilance, and proactive measures are essential for effectively addressing evolving challenges in the areas of security, privacy, and legal compliance.

## **Database dump:**

## A screenshot of a computer Description automatically generated

## A screenshot of a computer Description automatically generated

## **Screenshots:**

The Login Page:

A screenshot of a computer

Description automatically generated

Register Form:

A screenshot of a video chat

Description automatically generated

User Credentials saved in MongoDB:

A screenshot of a computer

Description automatically generated

Feed when user login:

A screenshot of a computer

Description automatically generated

Upload post form:

A screenshot of a computer

Description automatically generated

Feed after uploading form:

A screenshot of a computer

Description automatically generated

MongoDB:

A screenshot of a computer

Description automatically generated

Postman:

A screenshot of a computer

Description automatically generatedA screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated