

Success Story

Stimulating the exchange of knowledge between research departments

A multinational research organisation aimed to improve internal collaboration. They wanted different departments to share their laboratory test results. To achieve this, they collaborated with VirtusLab to develop an application using Markdown, a lightweight markup language. The solution resulted in a seamless user experience. It also attracted a large user base of 5000 people within the client's organisation.

The Challenge

Our client wanted to stimulate the exchange of lab test results throughout the organisation. They were looking for a user-friendly solution that would allow scientists to write summaries of their work and publish them internally. The current solution used Markdown language, which limited readability. Since our client already liked the quality and way our developers handled their workload, they hired VirtusLab to build a simple Markdown parser to replace the old solution.



The solution

Virtuslab created a custom text editor based on the Markdown language and a user interface that integrates with it. Our client understood that the research departments would be more willing to share their knowledge if the process was smooth and user-friendly. That is why the developers focused on 3 key elements:

- **70% of the application's code** underwent a series of end-to-end testing to ensure its smooth performance.
- **The development team implemented** continuous delivery and continuous integration methodologies to enhance future maintenance and minimise the number of errors.
- **The application was also refactored** to match current technological standards.

★ The results

The final product is a blend of Twitter and GitHub: an intuitive tool for sharing research findings, with a text-based interface.

- 1 **Scientists can now write summaries** that can be filtered by location or topic. The Markdown-based text editor is designed to seamlessly integrate with any application, so it can be used with other tools that the client will build in the future.
- 2 **The security is provided via a combination** of VPN and Okta, meaning that it's impossible to access the servers by anyone other than the client's employees.
- 3 **To add an extra layer of protection**, the system also utilises single sign-on authentication, which creates a cookie. This cookie is then verified by the backend to ensure a secure connection.
- 4 **Currently, the application has a user base** of 5000 employees. Additionally, there are 2000 data aggregates, with each one being a discussion thread related to the ongoing lab tests. These threads cover multiple subjects and are combined within the application.



The tech stack

/ Languages:

- JavaScript

/ Tooling:

- React
- Next.js
- Typescript
- React Query
- GraphQL
- Playwright
- Milkdown Library
- ProseMirror



About VirtusLab

At VirtusLab, we aim to lead in software technology, working consistently to enhance efficiency. Our profound commitment to research and development and a dedicated focus on emerging trends and inspirations fuels an innovative culture. This ethos precisely guides advancing our cutting-edge solutions, inviting collaboration to expand the boundaries of software technology collectively. We welcome you to be a part of this transformative journey.

[Let's connect](#)

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