

A **US-based EHS solution provider** approaches Zuci to enhance **user experience** and **efficiency**



Industry:
ISV



Location:
Oslo, Norway



Services Offered:
Product enhancement,
QA/Testing

Meet Our Customer

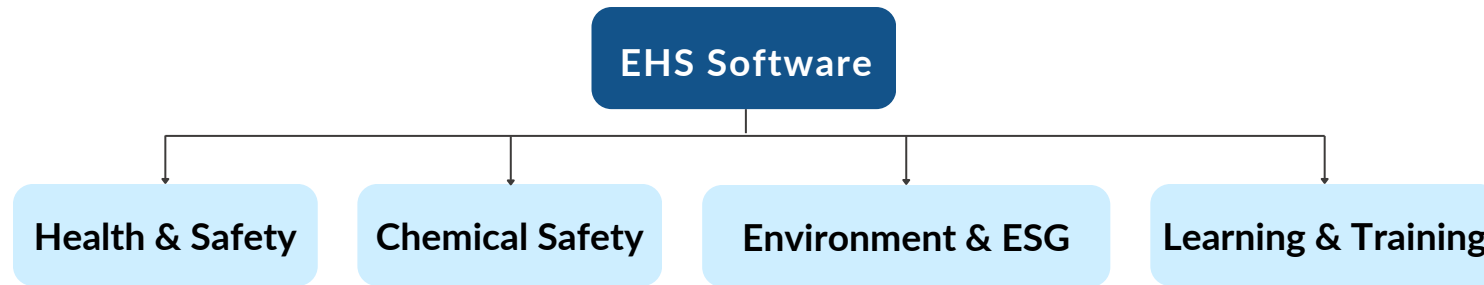
Our client is an Environment Health and Safety (EHS) software company headquartered in Europe.

With a customer base exceeding 6000 and a workforce of 500 professionals, the client specializes in comprehensive EHS software solutions. Their offerings encompass every aspect of an organization's occupational health and safety processes, from workplace policy implementation to incident reporting, prevention protocols, and the resources required to uphold occupational health and safety policies.



A Comprehensive Application Modernization and QA Overhaul Case Study by Zuci Systems

The client had developed an all-encompassing EHS solution, consolidating Health & Safety, Chemical Safety, and Training modules into one accessible platform.



Within the "Health & Safety" segment, a suite of modules was created to enable companies to establish consistent processes. These modules featured customizable forms and workflows, aiming to create a safer, healthier, and more sustainable working environment.

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Challenges arose for the client when they wanted to:

Streamline processes



Enhance user-friendliness



Ensure configurability of
their applications



Overcome language barriers among
their diverse user base



To address these challenges and further optimize their offerings, the client decided to enhance certain products within the Health & Safety module.



Product Overview & How Zuci helped:

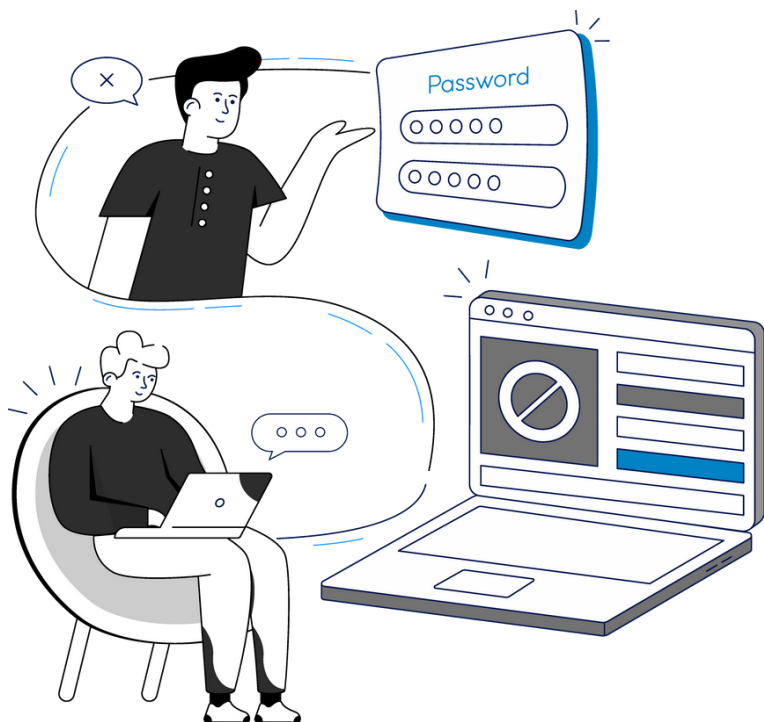
The products in question are closely related, each offering unique functionality that complements the others:



Product #1:

This comprehensive EHS platform empowers organizations to digitize their safety programs fully. It facilitates performance tracking and measurement while simplifying audits to proactively address potential hazards. The solution employs clear analytics to uncover hidden gaps and enhance transparency in safety performance.





Challenge:

The challenge here included having user access without emails, the need for multilingual support, and raising concerns due to their complex feedback forms. Additionally, it included the task of upgrading an e-learning API with a specific focus on incorporating visuals and enabling document uploads for all types for users' reference.

Zuci Helped Optimise User Interactions and Accessibility:

01

Streamlined the process for users to create usernames and passwords, ensuring a hassle-free setup.

02

Improved the platform by adding language options using JSON key-value pairs, enabling employees to choose their preferred language for interaction.

03

Implemented dynamic feedback forms that adapt based on user selections, resulting in a smoother and more intuitive form-filling experience.

04

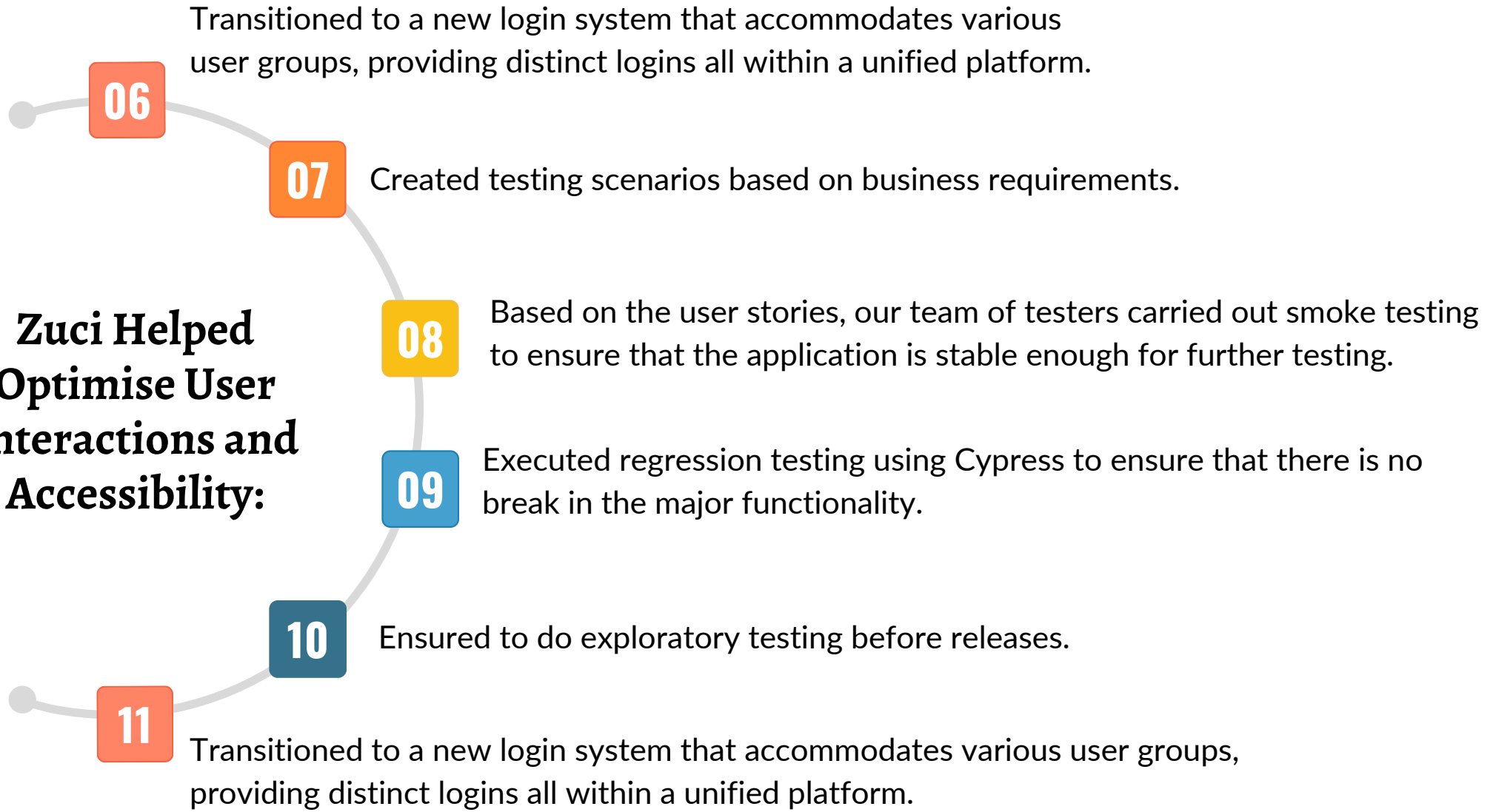
Redefined the platform's accessibility, making navigation effortless, while providing the convenience of guest logins.

05

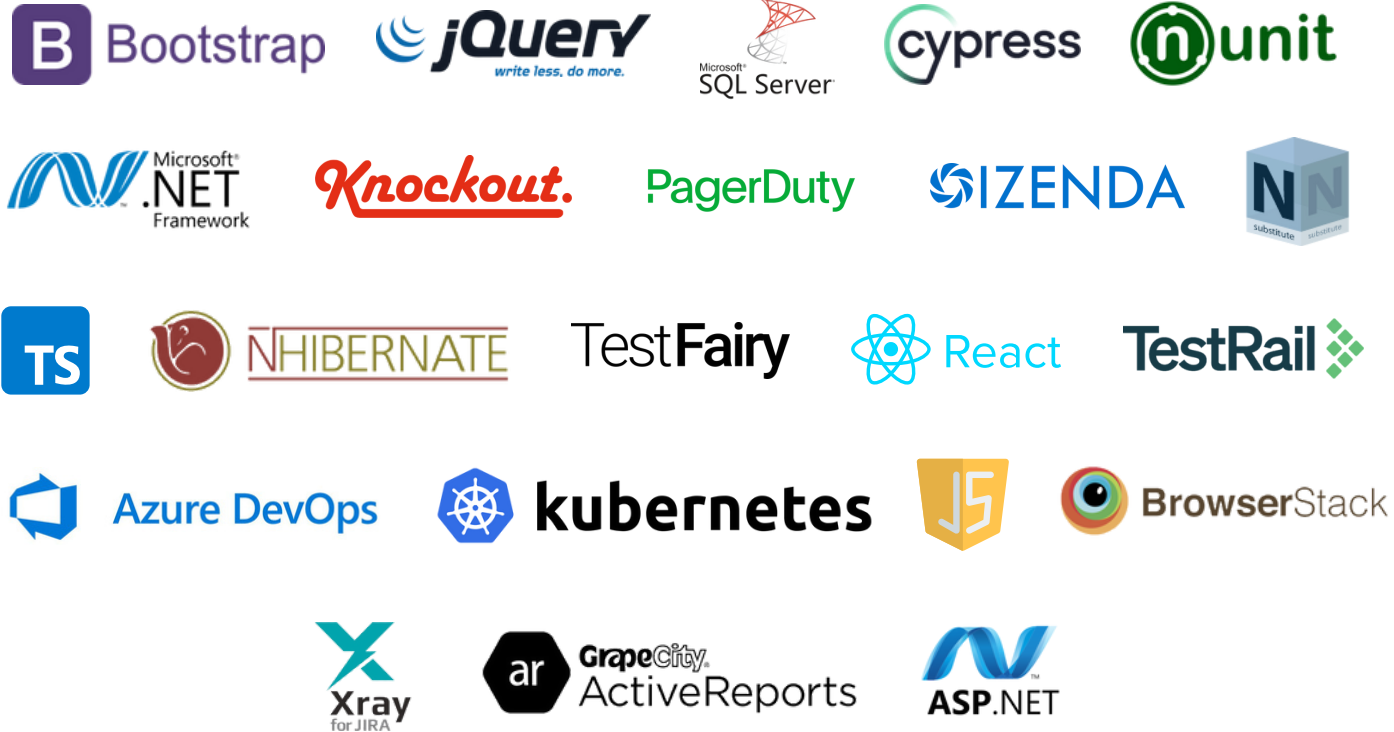
Incorporated visuals into feedback forms to enhance user understanding by making instructions and information more comprehensible.

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Zuci Helped Optimise User Interactions and Accessibility:



Tech Stack





Product #2:

Designed for ease of use, this solution enables users to effortlessly create, request, and manage permits for various hazardous activities. All stakeholders involved in the work gain visibility into permit details, fostering improved communication with their teams and contractors.





Challenge:

The challenge here was to enhance workplace safety by streamlining permit management through the app. This involved adding specific notes for different permits, automating user competence verification before submission, improving error messages, and implementing filters for faster access to information. All these changes were aimed at increasing efficiency and reducing response times in the permit process.

Zuci Helped Improve Platform Customization and Testing Processes:

01

Improved the platform by adding a custom fields option, that allowed users to customize their requirements.

02

Implemented a feature, which enabled users to upload video files without requiring the intervention of technical experts.

03

Enhanced the specificity of error messages and incorporated advanced filters that helped users with a streamlined troubleshooting experience and pinpointing issues promptly.

Zuci Helped Improve Platform Customization and Testing Processes:

04

Conducted smoke and system testing based on the sprint items to verify the application's stability for subsequent testing phases.

05

Performed regression testing, both manually and also with selenium automation scripts to confirm the integrity of major functionalities and identify any potential issues.

06

Conducted exploratory testing prior every release to uncover any unforeseen issues or anomalies.

Tech Stack

ASP.NET Core .NET 6.0 TestRail TS

Entity Framework Core Azure Pipelines docker Microsoft SQL Server CSS

kubernetes BrowserStack Bootstrap

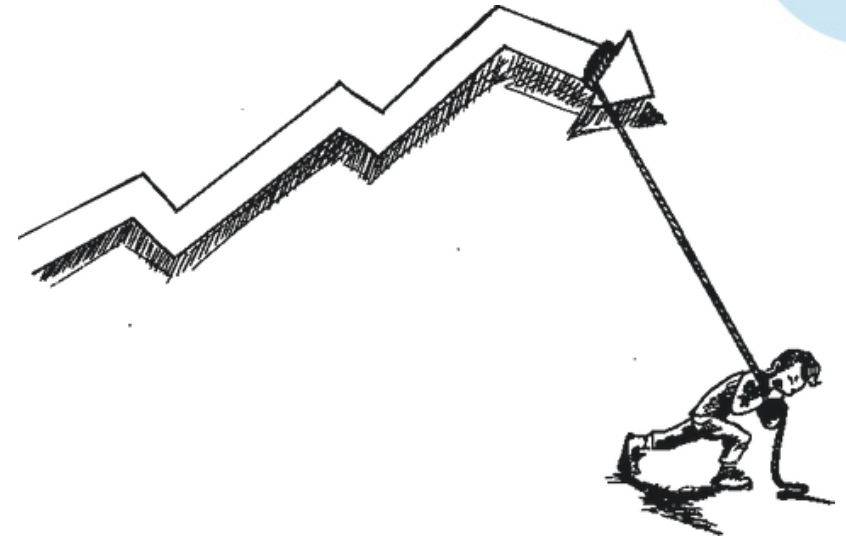
Angular 14.0 mongoDB X JS

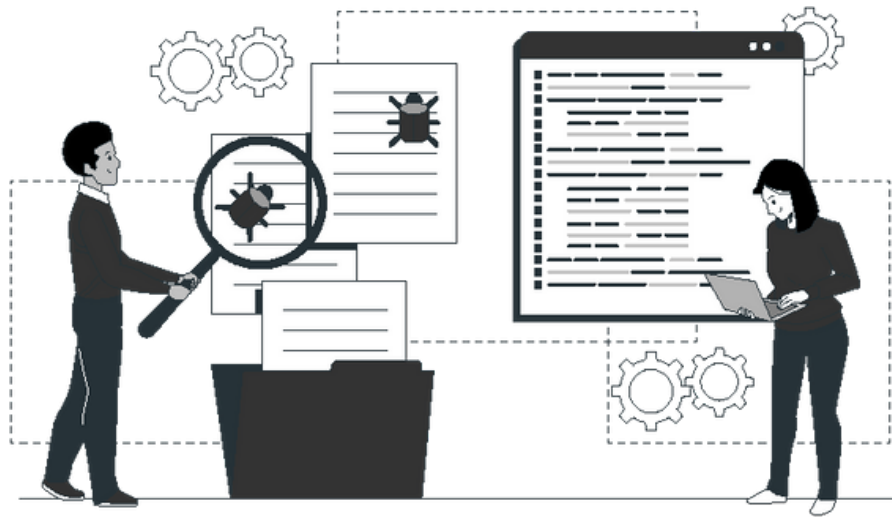




Product #3:

This solution equips organizations with the readiness and resilience to handle unexpected crises. It offers robust, scenario-based functionality, ensuring effective crisis management and minimizing their impact.





Challenge:

The challenge here involved the lack of dedicated quality assurance (QA) professionals and efficient QA processes that made it difficult to ensure the performance and quality of the application.

Zuci Helped Optimise User Interactions and Accessibility:

01

Test engineers embarked on the task of setting up QA processes from scratch.

02

Developed end-to-end test cases for each sprint. These test cases were designed to replicate real-world user experiences, ensuring rigorous validation of system components, dependencies, data integrity, and integrations.

03

Gradually adopted Cypress framework for automation, thus enhancing testing efficiency and speed through automated test cases.

04

Leveraged the performance tool Octoperf to assess and enhance application performance. This would ensure that the application would not break in the face of unforeseen load.

Tech Stack





Product #4:

A cloud-based mobile solution designed to streamline safety asset inspections across multiple locations. It adapts to the company's specific needs, enhancing efficiency and simplifying safety processes. The solution delivers a seamless experience for transitioning between online and offline modes.





Challenge:

The challenges here involved limited resources for learning the Wicket framework, hindering adoption and capabilities utilization. The absence of a dedicated infrastructure team complicated server maintenance and releases. Resource shortages onshore and offshore exacerbated these issues, and the lack of a dedicated QA resource posed security and quality challenges.

Zuci Helped Optimise User Interactions and Accessibility:

01

Extended the existing organization functionality within the application using Site Tree, which allowed for more flexibility and depth.

02

Improved security and user access control by integrating the application with the client's platform's authentication system using Auth 2.0.

03

Automated tests using Cypress Automation to perform unit, integration, and end-to-end tests.

04

Worked on the Mobile API module, making it run faster and better by using Spring Boot and JPA.

05

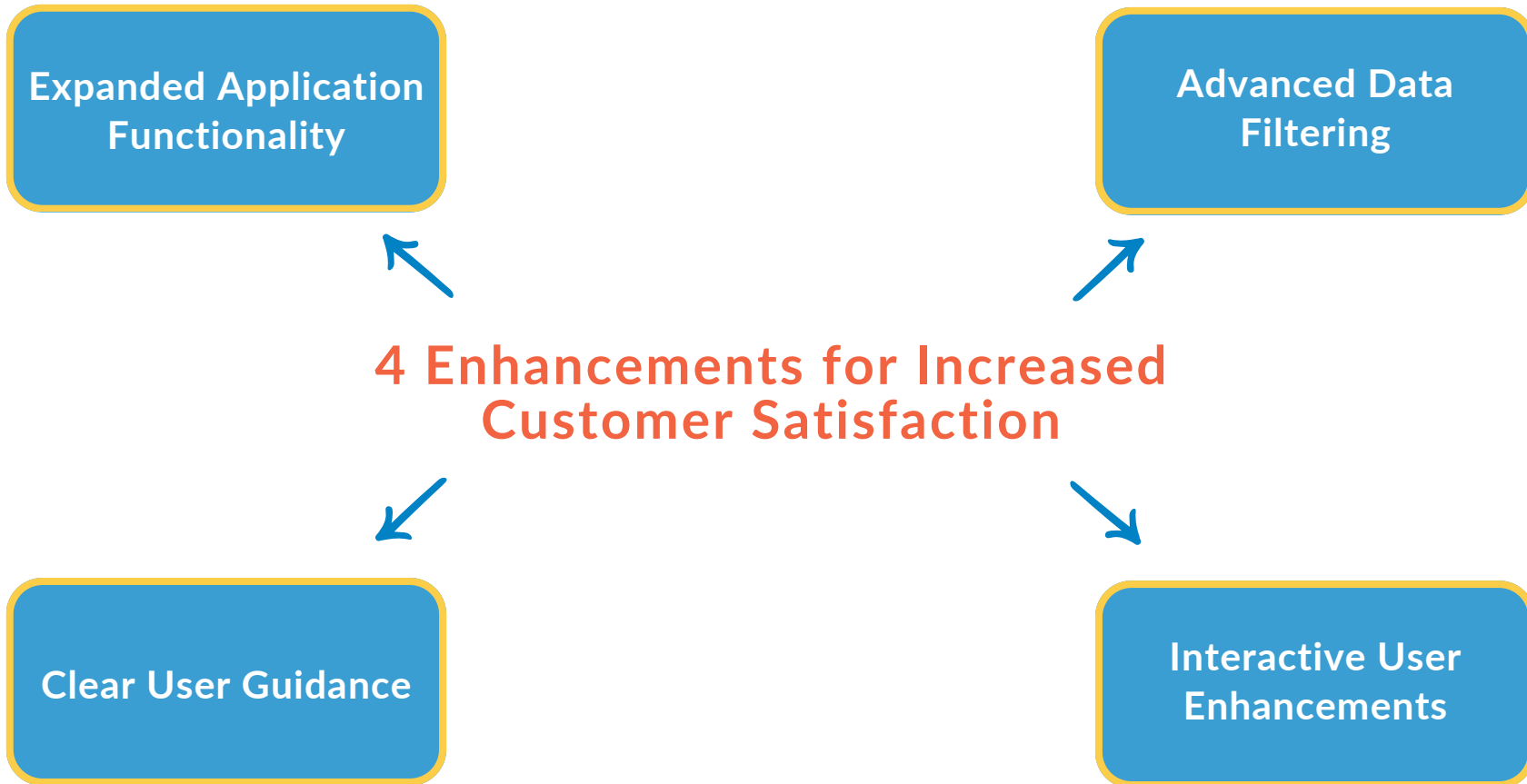
Worked on improving the performance of the app in select modules.

Tech Stack



Together We Achieved:

The combined work of application enhancements and QA improvements resulted in the following advances for the client:



Clear User Guidance:

Refined the guidance and instructions provided within the application to be more user-centric and clear, which reduced user errors and confusion. Clear guidance minimized frustration by providing straightforward instructions and made the application more user-friendly.

Interactive User Enhancements:

Implemented interactive features and elements such as real-time feedback mechanisms and dynamic content that responded to user actions. This streamlined complex tasks or processes, making it easier for users to achieve their goals within the app.





Advanced Data Filtering:

Expanded the filtering options, making it easier for users to find and manage data according to their needs. Users were able to save significant time by using advanced filters to isolate data points that met specific criteria, eliminating the need to manually sift through data or perform repetitive searches.

Expanded Application Functionality:

Expanded and improved various functionalities within the application, providing more capabilities to users.

Ultimately, these enhancements were geared towards fulfilling the client's primary goal of achieving increased customer satisfaction.



Ready to elevate your application's performance and user experience?
Let's discuss your enhancement journey today!

30-min free consultation →

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