A Collaborative Visual Database

by

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ESSTHS

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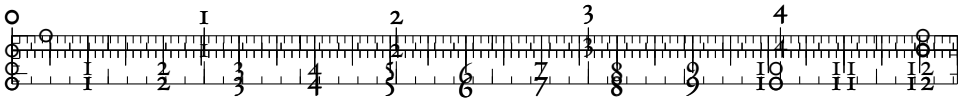
To you.



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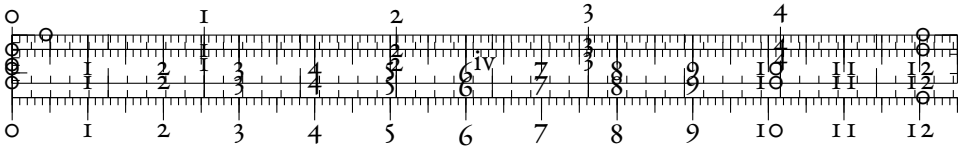

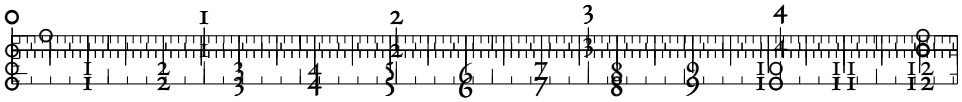

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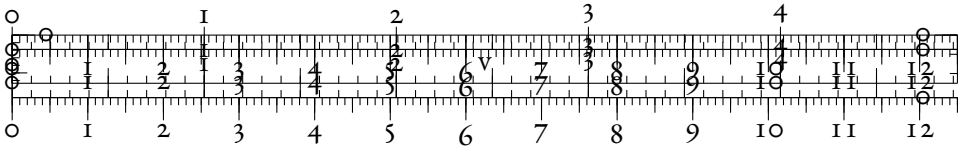

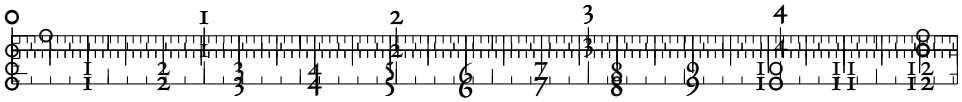

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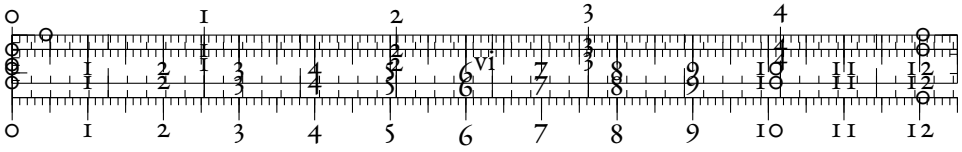
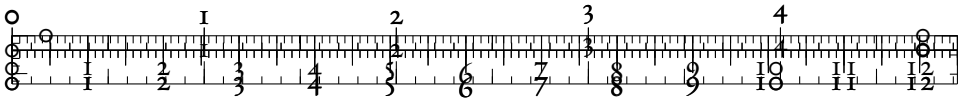




Conclusion

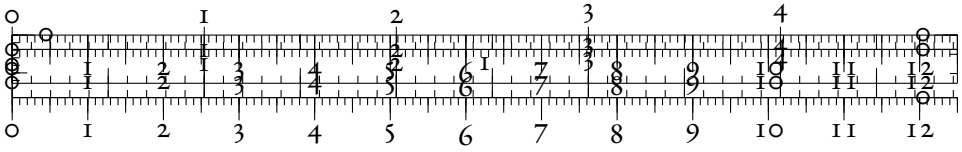
Our project consists in building a visual collaborative database for small and medium-sized businesses, to be used for content management and to be easily connected to web applications with no required technical knowledge. Three months later, we got there.

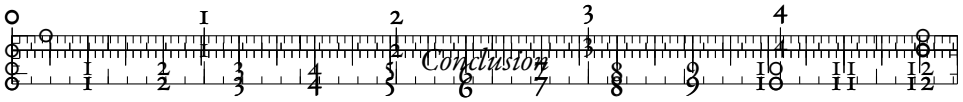
Our prior experience with various other applications and our extensive research of similar solutions gave us an idea about what we actually wanted—collaboration, performance, accessibility, and simplicity. Then, we designed our use cases around these ideals.

Since we had the freedom of choosing whichever technology we wanted, we made sure to make the right choice that would ensure achieving all of our requirements. We analyzed our options, and we picked what evidently was the best choice for our use-cases. Throughout this, we presented our application's architectural patterns, composition, and conceptual study. We dived deep into collaborative algorithms in theory and practice, and we chose the one that fit our application the most.

Eventually, we explored our technology stack and presented more patterns and ideas that would lead to the desired performance and usability goals.

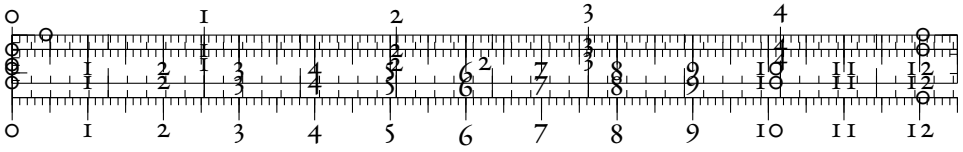
Finally, and since an idea is worthless unless it is brought to life, we explored our application's implementation with its different screens and features.

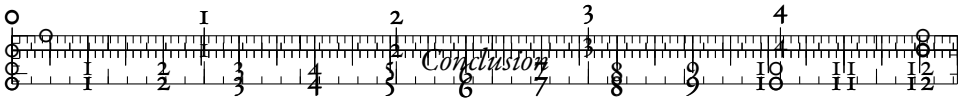




No application is ever complete, but we hope that within these three months we were able to create a disruptive solution that would fix one broken part of the internet.

We also hope that this project and this work sets the example for what is possible with the modern web, within a limited timeframe, a single laptop, and an idea.

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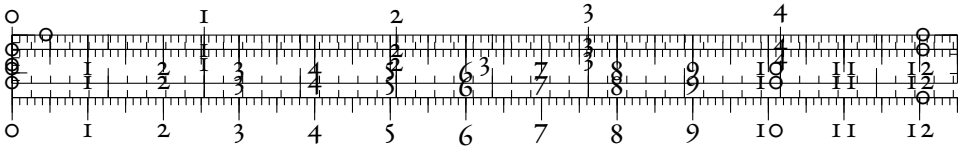

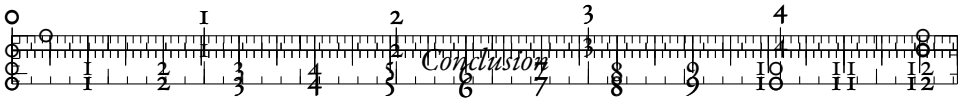
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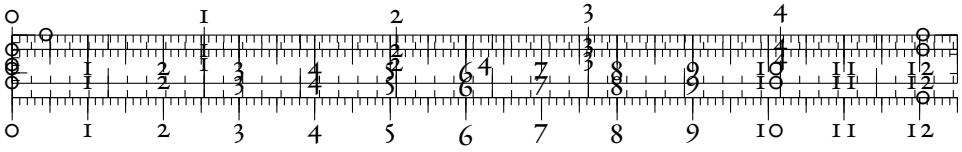

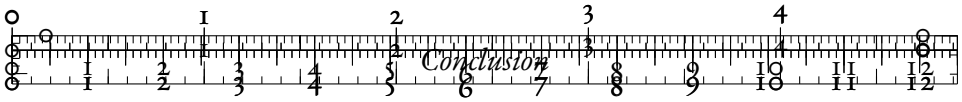

Abstract

The goal of this project is to develop a collaborative visual database for small and medium-sized enterprises with limited technical knowledge. The project relies on modified CRDT algorithms for real-time collaboration and a set of modern web technologies to ensure the best user experience.

Keywords: Real-time, collaboration, database, no-code, React.

Résumé

L'objectif de ce projet est de développer une base de données visuelle collaborative pour les petites et moyennes entreprises ayant des connaissances techniques limitées. Le projet s'appuie sur des algorithmes CRDT modifiés pour une collaboration en temps réel et sur un ensemble de technologies Web modernes pour garantir la meilleure expérience utilisateur.

Mots-clés : Temps réel, collaboration, base de données, sans code, React.