

# How Pulley Cut Development Time by 50% with Hasura

Hasura helped Pulley cut development time by 50% by auto-generating and securing GraphQL for over 50 database tables

Pulley, an alumnus of [YCombinator 2020](#), helps ambitious founders manage their cap table and employee equity, helping startups manage stock options and perform pro forma modeling to optimize their equity. In its first year of existence, Pulley achieved rapid success, gaining 1,000 customers by enabling founders to manage the intimidating process of managing their cap table within an hour.

Pulley decided that [Hasura's GraphQL engine](#) would accelerate their development by auto-generating the GraphQL schemas and resolvers to their Postgres database. They also leveraged other Hasura features, including:

- ▶ [Data migrations](#) when database changes occurred
- ▶ Security & [permissions](#) model to keep sensitive data safe
- ▶ Fast performance, resulting in a excellent user experience



By using Hasura we cut the development time in half and built our product in 3 months.

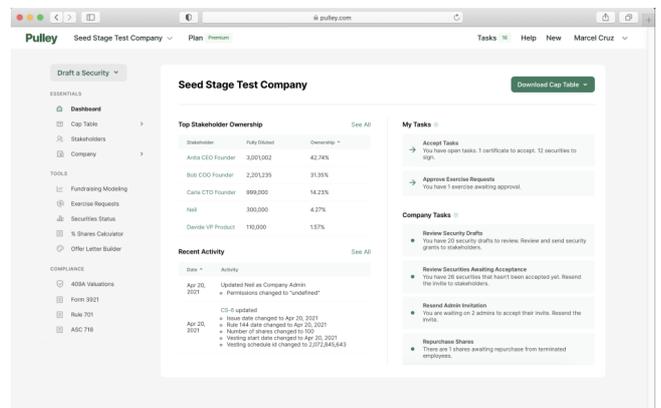


Pulley's architecture includes React, a Go backend, and Hasura's GraphQL engine connected to a Postgres database.

## Pulley's Challenge

Pulley's technical architecture was composed of a Postgres database, backend written in Go, and web front end using React. As they iterated quickly in the beginning they needed to find the balance between rapidly making changes, adding features, while also making sure the solution kept very sensitive financial data secure. Other challenges included:

- ▶ Creating a universal data access layer for over 50 database tables
- ▶ Making frequent database changes without having to rewrite significant amounts of data access, backend, and frontend code



Pulley helps founders managed their cap table and stock options to optimize their equity.

## Why Pulley Chose Hasura

“We’ve been impressed with Hasura’s speed. It’s a core part of why our overall app is fast.”

Early in the development process, the Pulley team decided GraphQL would offer the benefits of easily transporting data between the different layers of their application - from the Postgres database, to their Go backend, and React frontend. They adopted Hasura after discovering it met and exceeded their expectations:

▶ **Auto-Generated GraphQL Schemas and Resolvers:**

Hasura provided “GraphQL out of the box” with its ability to auto-generate GraphQL schemas and resolvers of their Postgres database, saving Pulley months of development time - especially in their early stages when changes to features and the underlying database happened frequently.

Pulley utilizes Hasura for nearly all queries and updates of over 50 database tables.

▶ **Data Migrations:**

Hasura’s migrations feature was also essential during the early phases of Pulley’s product development, tracking Postgres database schema changes in metadata, allowing them to keep their database consistent between development and production.

▶ **Real-Time Updates via GraphQL Subscriptions:**

Subscriptions simplified their frontend development, utilizing React components to dynamically update their web frontend as new data arrived. This eased the burden of having to write their own notification framework to provide real time updates.



Hasura’s built-in role-based authorization system made it easy to secure our data

▶ **Security, Authorization & Auditing:**

To protect its customer’s sensitive financial and personal data, Pulley relied on Hasura’s granular authorization features, which can be applied down to the row and column level. To ensure the security of their system, Pulley regularly performs penetration testing to make sure that their entire system, including Hasura, are hardened from external attack.

Pulley also relies on Hasura’s built-in auditing capabilities to track changes in user permissions, providing them a history log of changes they can refer back to.

▶ **Management Console:**

Hasura’s console also increased the developer’s productivity by making it easy to perform GraphQL schema generation tasks, perform GraphQL queries, and perform traces to identify any performance bottlenecks.

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Thank you to Pulley and Mark Erdmann - Software Engineer for sharing their story with us!

## About Hasura.io

Hasura makes developers superhuman and simplifies app development with its open-source, real-time GraphQL API engine to instantly create reusable, GraphQL and REST APIs from your new and existing data. Power modern apps and complex data integrations while radically reducing your development time by using a unified interface in the cloud or on-prem. Hasura provides the tools, scale, and granular security to power the most mission-critical workloads. Learn more by visiting <https://hasura.io>