

Building low latency apps on historical data insights

Leveraging data to solve intractable problems



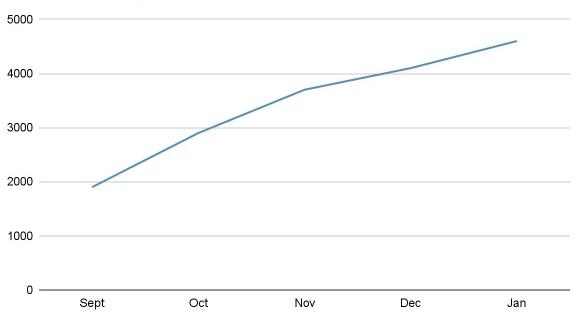
Story Time

- You are a 10 mins smartphone delivery company.
- Returns have increased 3x.
- Returns logistics cost alone ~50% expensive than forward logistics.



Returns Over Last 5 Months

Returns Monthly





What Would You Do?

- Quit the job?
- Shutdown/penalize returns?
- Find a way to make returns work.



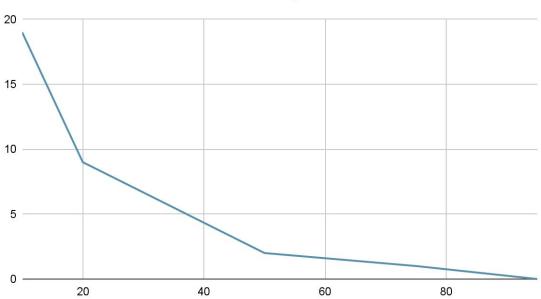
Let's Examine Returns Closely

- Returns reasons? Pricing, Quality, SKU?
- Payment Mode?
- Specific Set of Buyers?
- Delivery SLA breach?



Returns Data

Buyer Percentile vs Returns Per Buyer





Takeaway

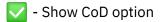
- 20% percentile of buyers account for a large percentage of returns.
- Most of these buyers use COD as a payment method.

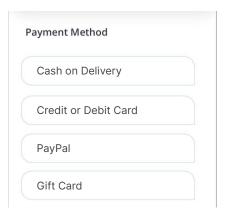


Solution

Reduce returns by putting high-return cohort of buyers on prepayment

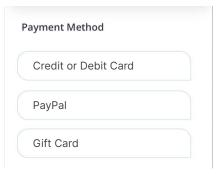
Customer with low return





Customer with high return

- Don't show CoD option



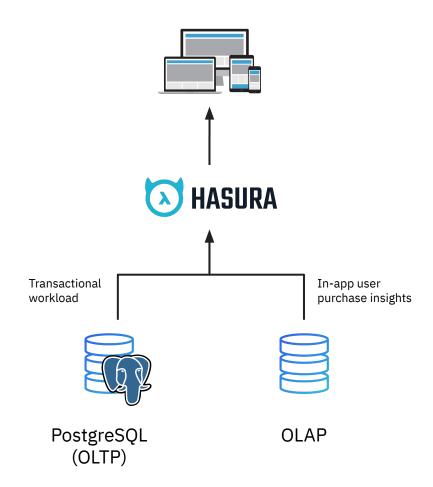


Architecture

- Overview
- Why Hasura?

Job to be done

Putting high-return cohort of buyers on prepayment at checkout





Option 1

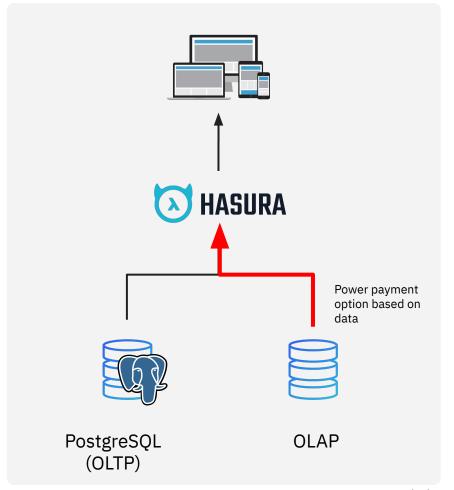
Power payment option decision from OLAP store

Pros:

Single system for analytics and transaction workflow

Cons:

- Higher latency





Option 2

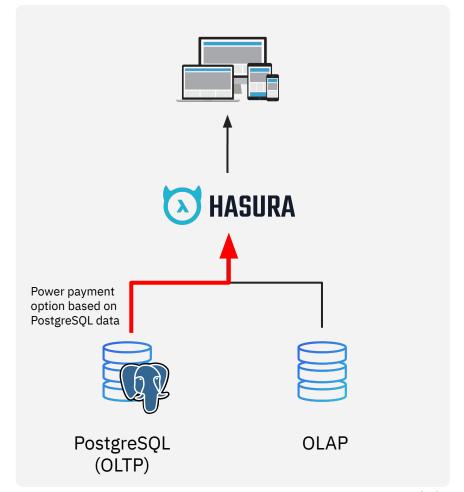
Power payment option decision fork from PostgreSQL

Pros:

- Better Latency
- Lower Compute Cost

Cons:

- Longer Transactions





Option 3 - Combine Both

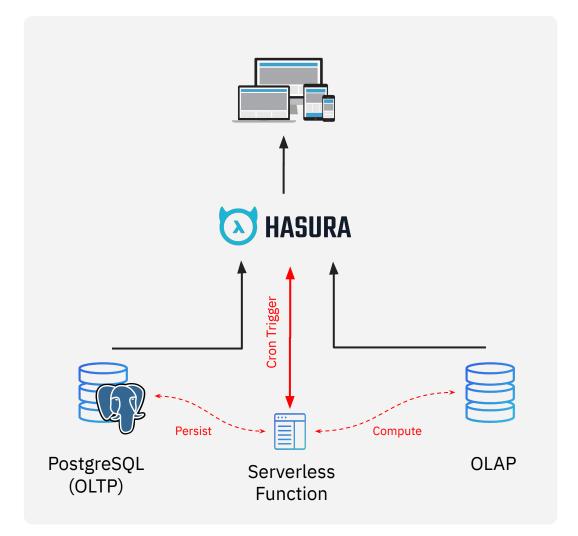
Combine OLAP + PostgreSQL

Pros:

- Use the best of both worlds
- Lower latency
- Lesser cost
- Fast transactions

Cons:

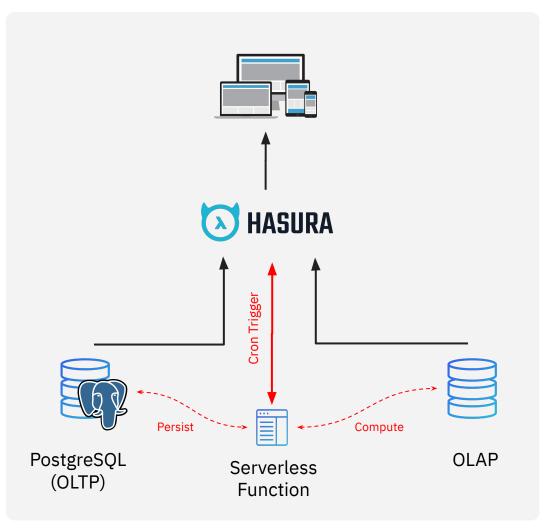
Orchestration*



Option 3 - this talk (cont)

Workflow

- Using Hasura's Cron Trigger.
- Hasura's Query API over OLAP store.
- Applying business logic.
- Persisting the output in PostgreSQL.
- Using that info during checkout workflow.



Summary

- Advantages of combining OLAP & OLTP
- Hasura takes care of plumbing



Next Steps

Try it out - http://bit.ly/420RZme



Clickhouse on Hasura - https://bit.ly/3OXTaLy



Thank You!

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HUG Special: What we're launching in 2023





What's new with Hasura in 2023

Manas Agarwal, VP Engineering, Hasura



Advanced API Authorization and Authentication

Akshay Bhat, Developer Advocate, Hasura

(6 pm IST

30 June 2023

Hasura HQ



