INGENIUS HACKATHON

Ahmedabad University

# Team Kaccha Badaam

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#### **Problem Statement**

- Small local businesses miss out a lot on sales and supply chain insights due to offline mode of operation.
- Lot of solutions are available for providing valuable sales insights for an online marketplace.
- Resource wastage is one of the biggest painpoints for small replenishment cycle domains (eg: food, beverages, etc)
- High demand in supply chain domain has increased the need for innovation in this domain.



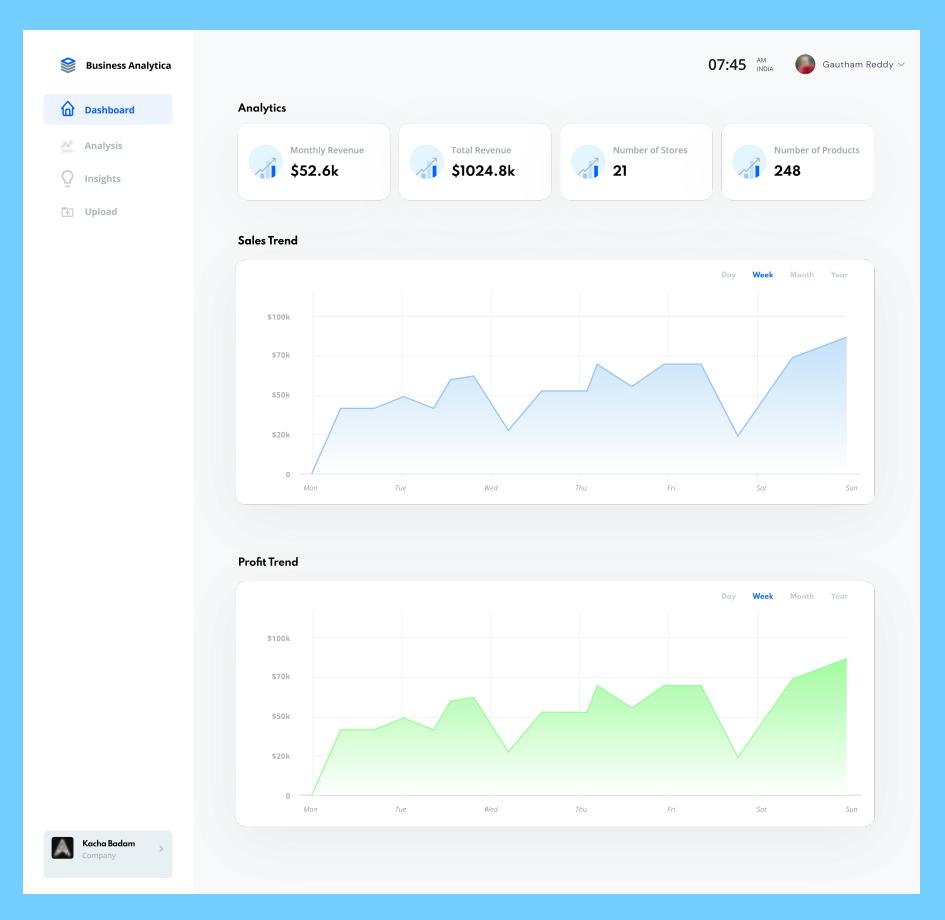
#### Our Approach

- The initial aim is to build an intra-store inventory procurement for small and mid scale businesses
- Provide analyse and visualization capabilities for inventory and salesrelated data
- Provide stock optimization insights to vendors to help them reduce wastage and increase overall profit
- Provide product and region level trending and comparison charts
- Assumption: Availability of inventory and sales data for small-scale businesses (via raw csv or erp platform integration)



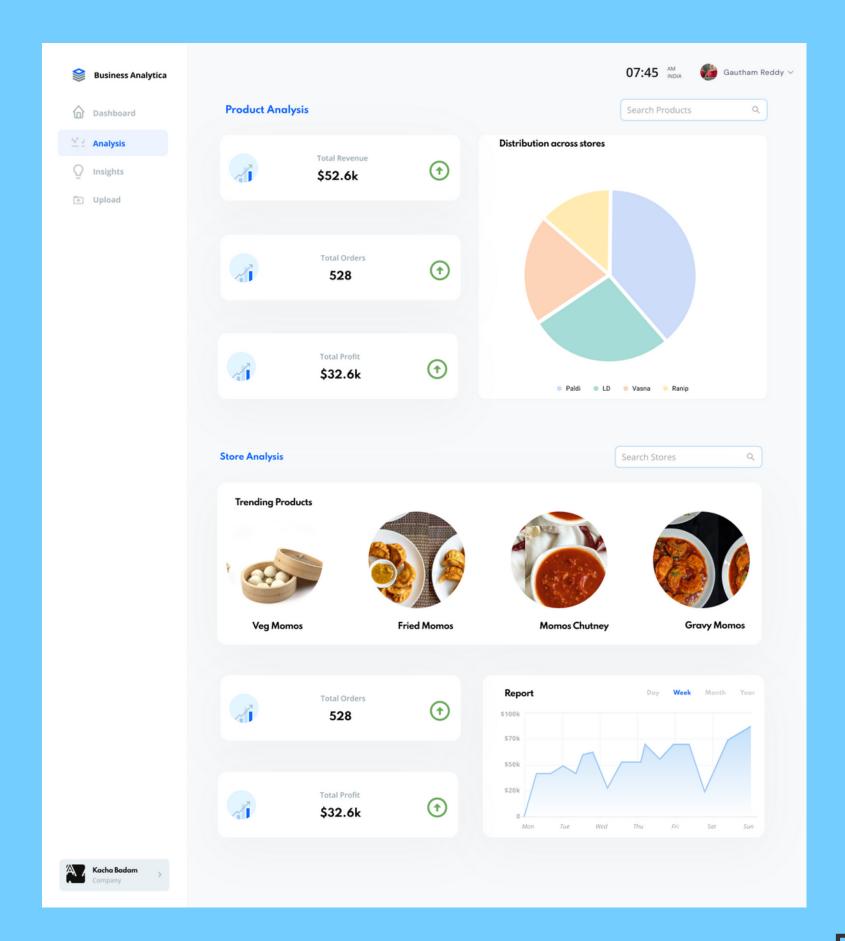
#### Solution

- Dashboard to analyze and visualize:
  - Efficiency of stock replenishment
  - Sales, revenue and profit growth of vendor chains
  - Categorical product analysis

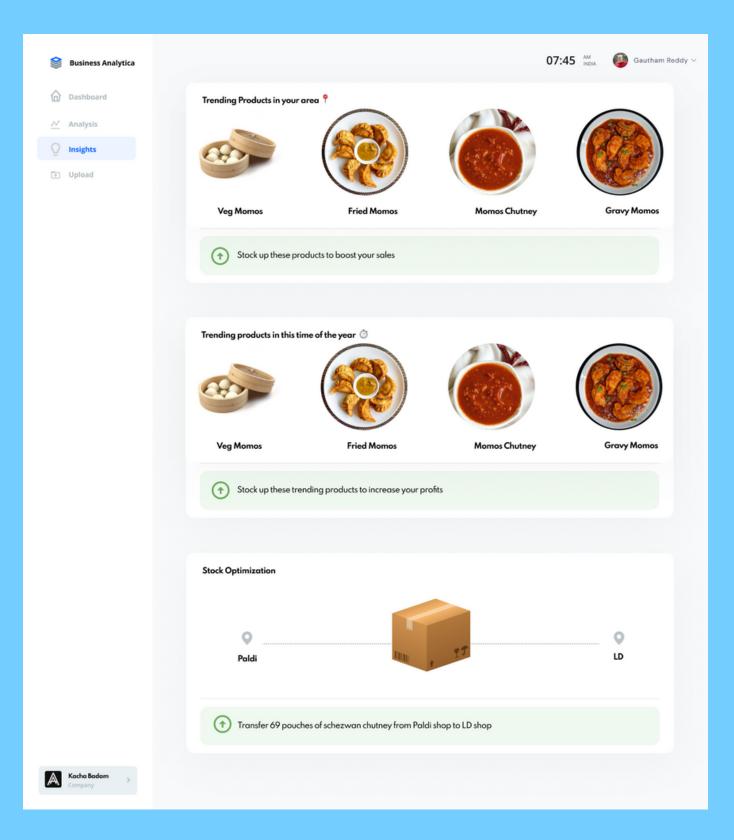


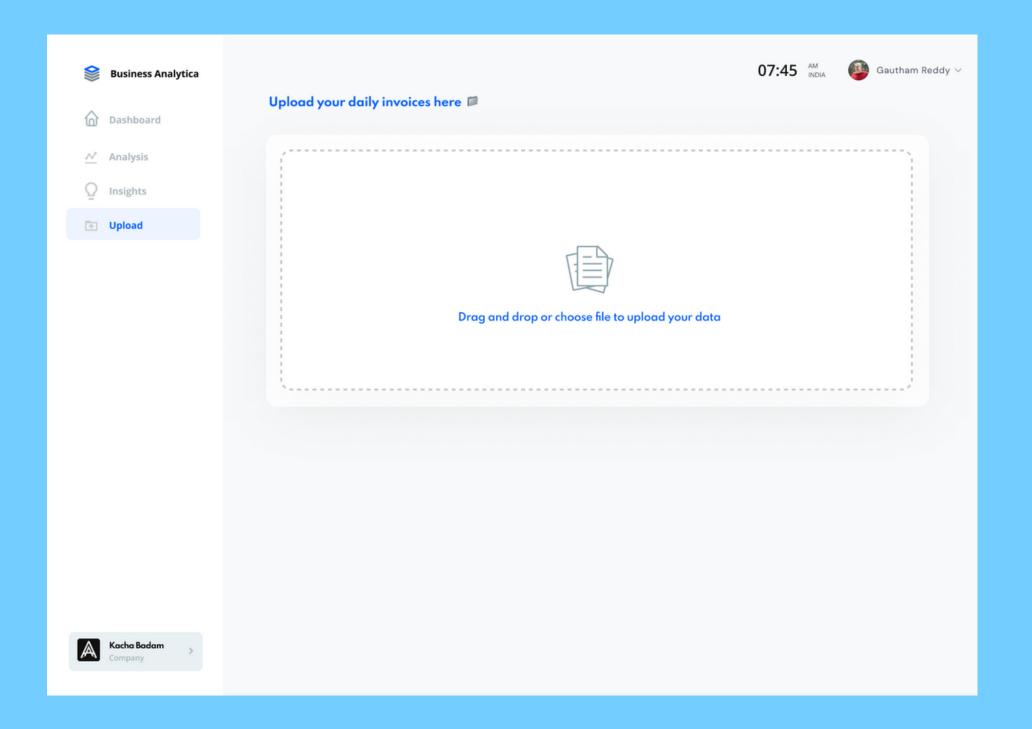
#### Solution

- Stock procurement + Sales insights:
  - Suggesting up/down stocking selective products/regions based on predefined weighted params
    - Apply custom statistical models for suggesting intra-stock movements
    - Parameters include product replenishment rate, quantity, location, product category etc.



#### Solution



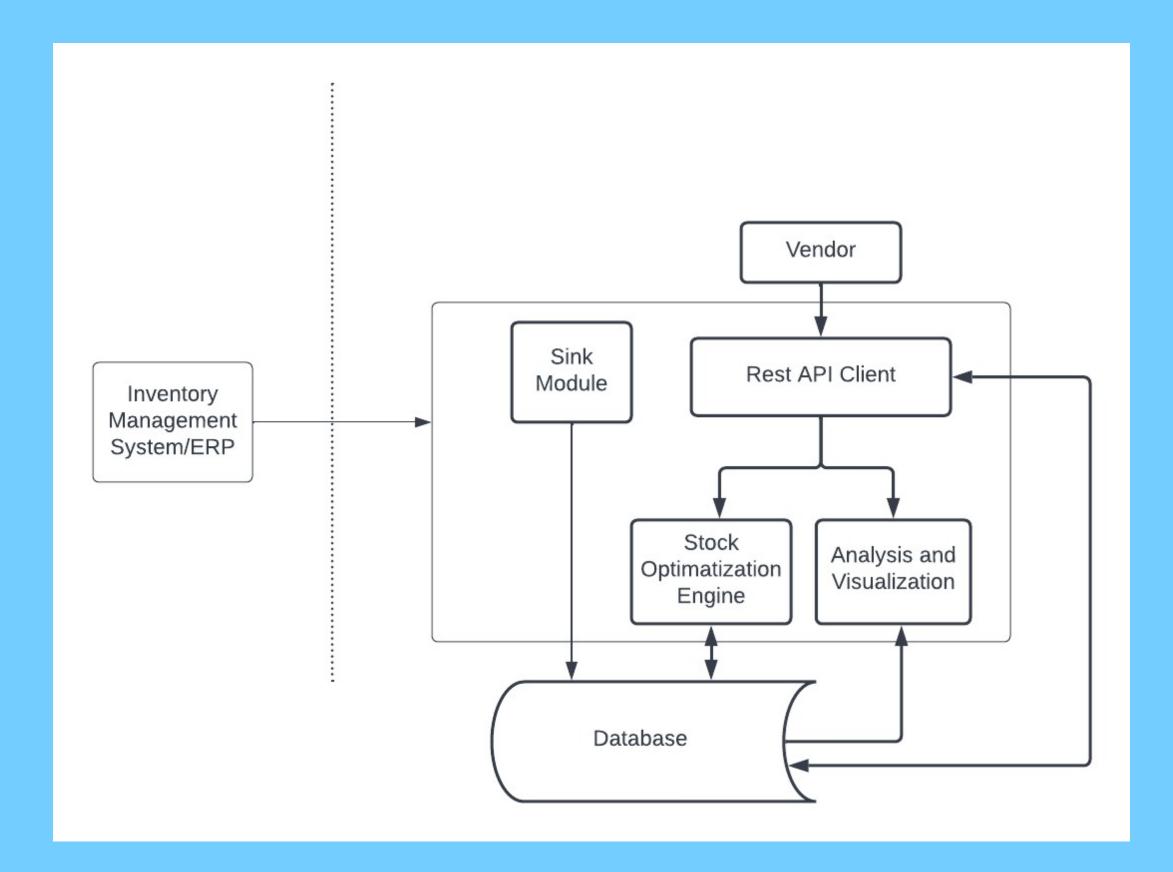


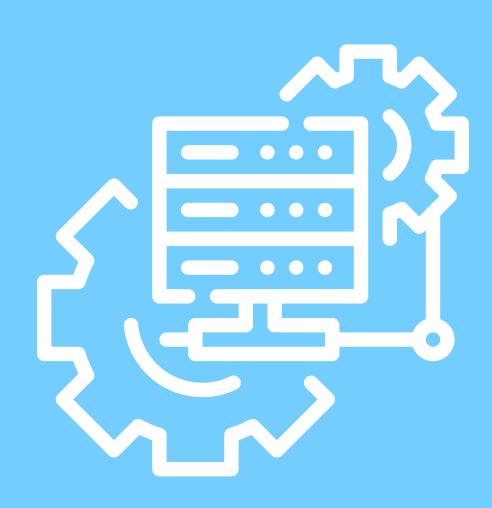
#### **Future Roadmap**

- Inter-store procurement:
  - Providing inter-store stock procurement for small-scale single-chain businesses
    - Up/Down stocking products from other vendors to boost regional sales

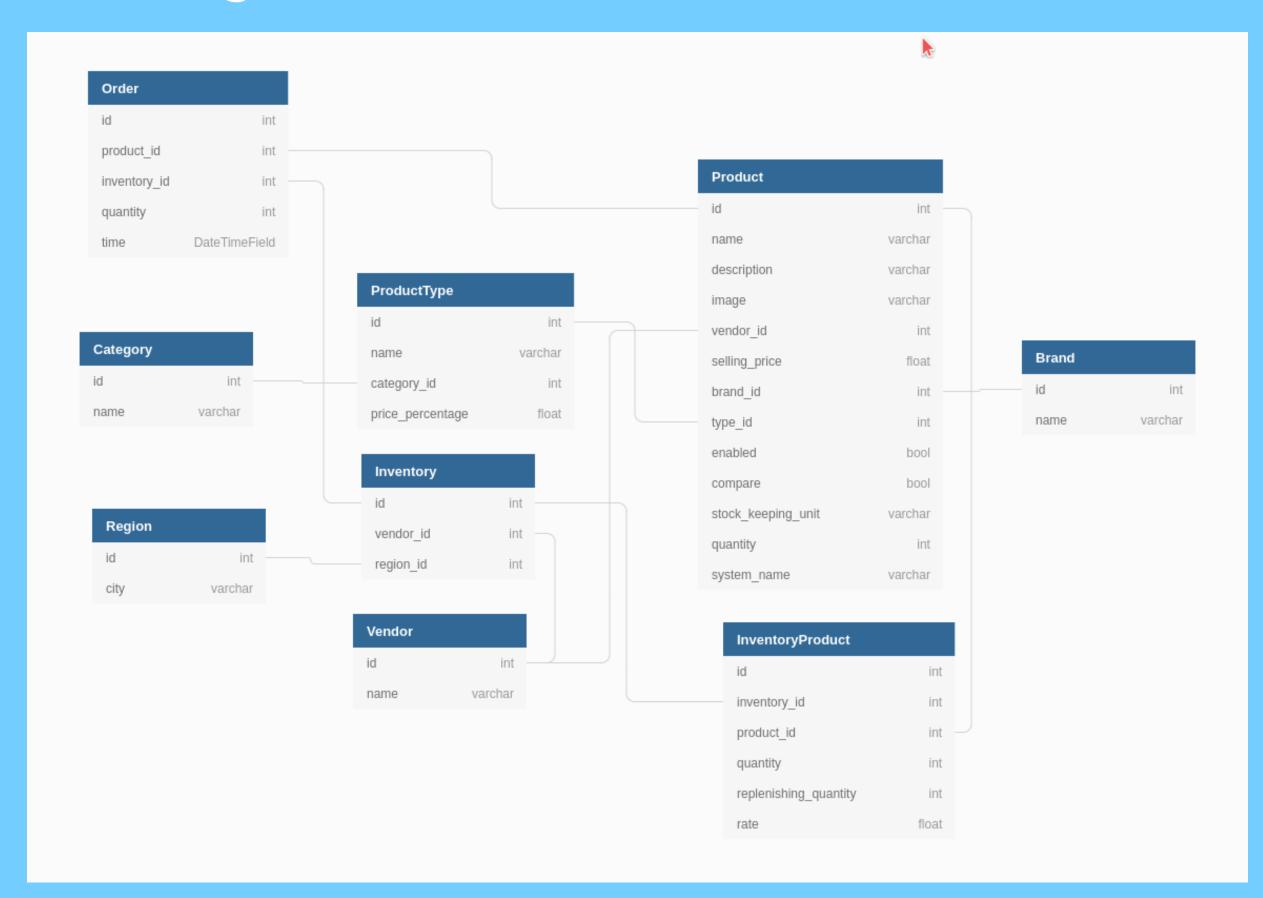
- Up stocking suggestions for inter-store supply chain:
  - Including multiple additional metrics (eg: upstocking fast selling products during price cut, time series evaluation for holidays and weekend trends, etc.).
- Incentivizing product down stocking to reduce overall loss in case of negative demands.

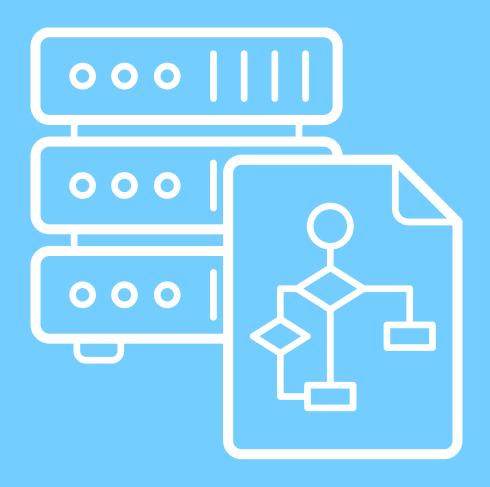
### System Diagram





## ER Diagram





#### **Tech Stack**

- Backend
  - Django
  - DjangoRestFramework
  - Heroku
  - PostgreSQL
- Frontend
  - Figma
  - ReactJS
  - React Bootstrap



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# Thank you for listening!