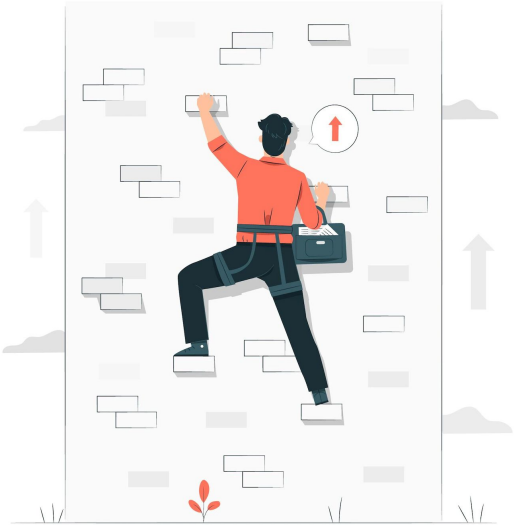
Team Salty

Retail agent analysis of a
Mobile Financial Service (MFS) company

Challenges

- Large Dataset
- Resource Constraints
- Time Constraints



freepik.com

Data Engineering

- **Data cleanup**
  - Null values
  - Duplicates
  - Invalid data
- **Assumptions**
  - Retail point location
  - Transaction Date vs Product Price Date
- **Chunk (map-reduce)**

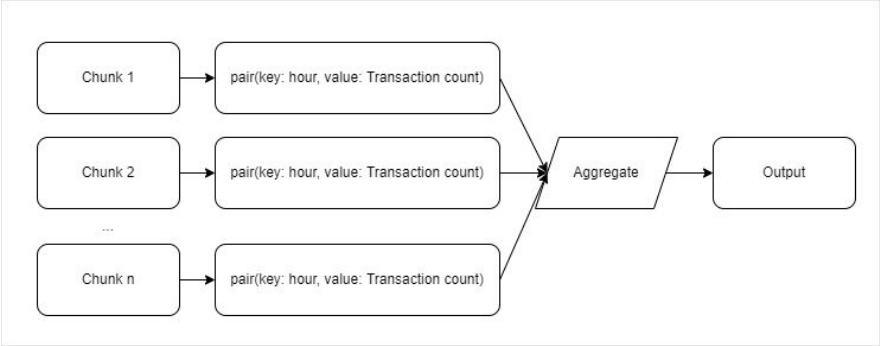
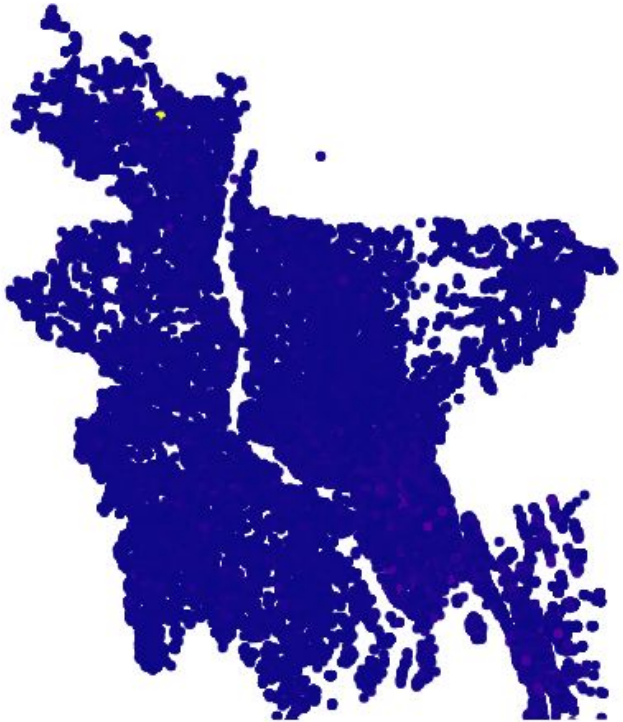


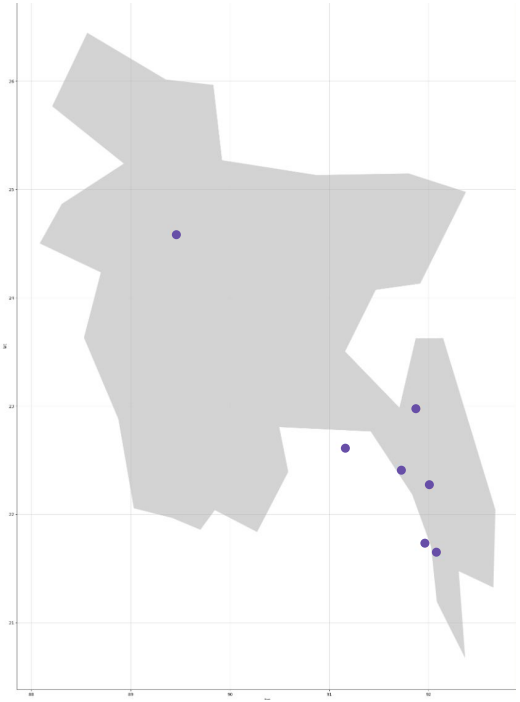
Fig: Sample Map-Reduce approach

Retail points in Bangladesh as per latest valid data



1. Distribution of retail point
2. Density of retail points in different area

100 Top Selling Retails (in isolation)

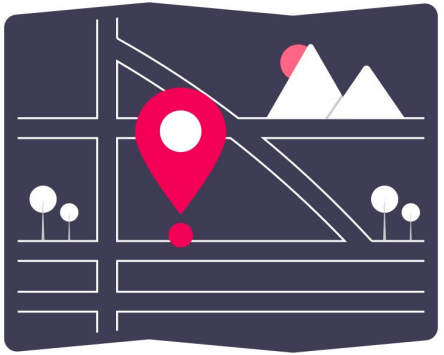


- **7 retail points** (among top 100) with no other retail points within 500 meter radius
- Possibility of **bottleneck**

Suggestion for Retail Point Deployment

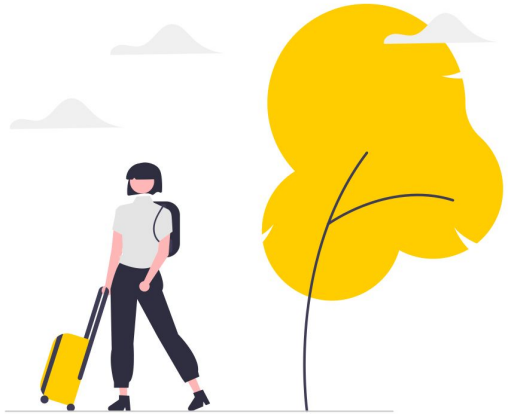
- Deploy to **reduce bottleneck**, **improve throughput**
- Deploy in areas of **unbanked populations** to promote MFS

  as per Bangladesh Mobile Financial Services (MFS) Regulations, 2022



Suggestion for Traveller Specific Product

- Analysis on Travelling customer vs Less Travelling customer
- Products specifically bought mostly by the Travelling customers
- Possible **customer tailored product advertisement**



undraw.co

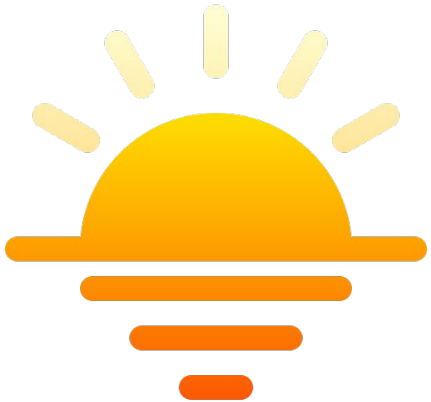
Billboard deployment scope

- At **Transit areas** for most **exposure**
- In **Tourist locations** to show widespread accessibility and can be easily recognized in low noise environment.
- Deploy in areas of **unbanked populations** to pull in new customers.

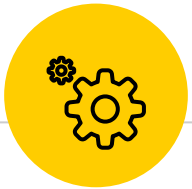
flaticon.com

Time Analysis

- Peak usage hour in **Summer** is around **7:00 pm**
- Peak usage hour in **Winter** is around **6:00 pm**
- Correlates with **Day-end** time
- Can help in **resource optimization** and **allocation**



flaticon.com

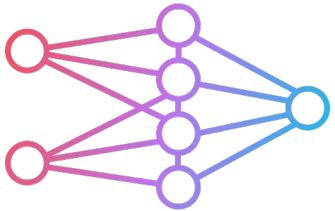


Forecast Model

To predict next week's daily **total sales**, next day's **sales of each retail**

Proposed approach

- **LSTM** based approach
- **Regression** based approach
- **Feature impact analysis**
- **Ensemble** technique exploration



flaticon.com

Thanks!

Any questions?