# **PhonePe Data Visualization & Analysis Report**

## Project Objective

To analyze and visualize digital payment trends in India using PhonePe Pulse data, focusing on:

- State-wise and district-wise transaction performance
- User engagement metrics
- Top vs. low-performing regions
- Data-driven recommendations for improvement

#### **Data Sources & Categories**

- 1. Aggregated Data: State -> Year -> Quarter | Includes transaction types and device data.
- 2. Map Data: District-level registered users, app opens, transactions.
- 3. Top Data: Rankings by volume/value and user registration.

## **Key Findings**

Maharashtra leads with 5.2B+ transactions, 12.5 L Cr+ value.

Nagaland trails with ~8L transactions and 250 Cr value.

Strong urban centers boost adoption. NE states lag due to terrain and access.

#### **Trend Observations**

- Q4 quarters show festive season spikes.
- App engagement high in metros like Mumbai, Delhi.
- Low uptake in remote towns and hilly states.

#### **Problems Identified**

- Low rural adoption
- Poor insurance usage
- Stagnant app usage in small towns
- Complex JSON formats

#### **Recommendations & Solutions**

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- Infra boost in NE states
- Localized UI
- Q4-targeted campaigns
- Reward programs in metro zones
- Use high-engagement, low-transaction districts for ads

# **Streamlit App Features**

- Filters: Year, Quarter, Type, State
- 3D Maps
- Trend Graphs
- Smart Insights and Alerts

# **Tech Stack**

- Python, Streamlit, Plotly, PostgreSQL, Pandas, GeoJSON

### Conclusion

This PhonePe analysis helps track digital growth, identify weak spots, and plan interventions with real data.