

UIDAI DATA HACKATHON 2026

Team Details:

- Team Name: Visualizers
- Team ID: UIDAI_11817

Team Members:

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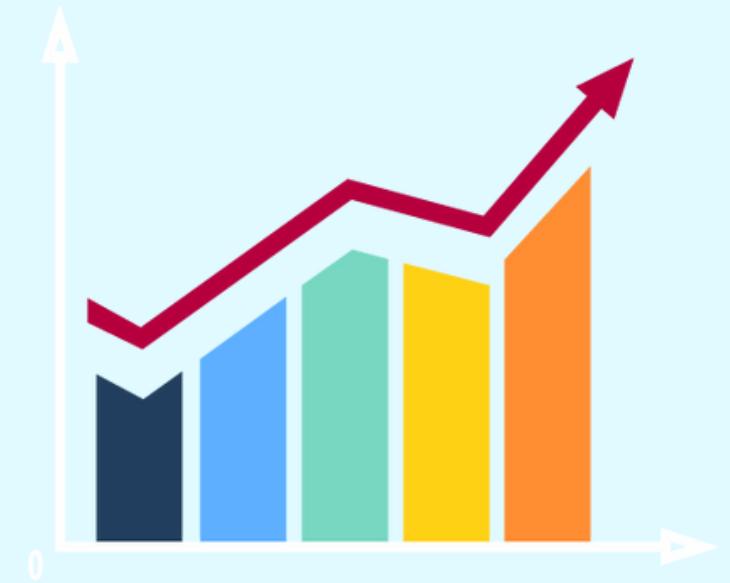
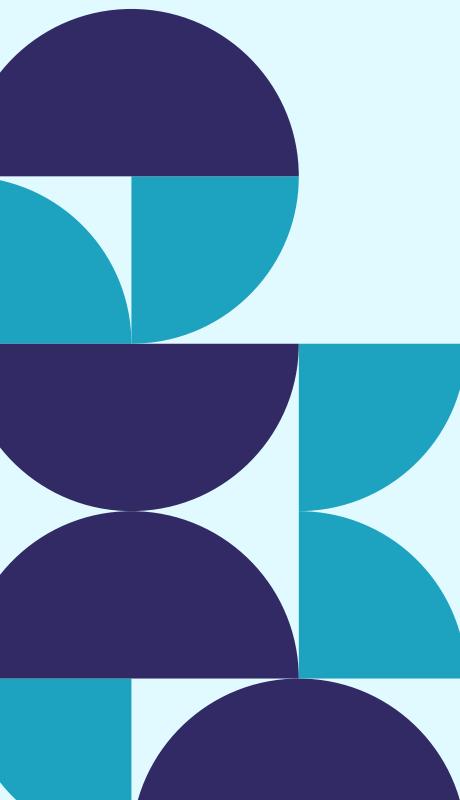
PROBLEM STATEMENT

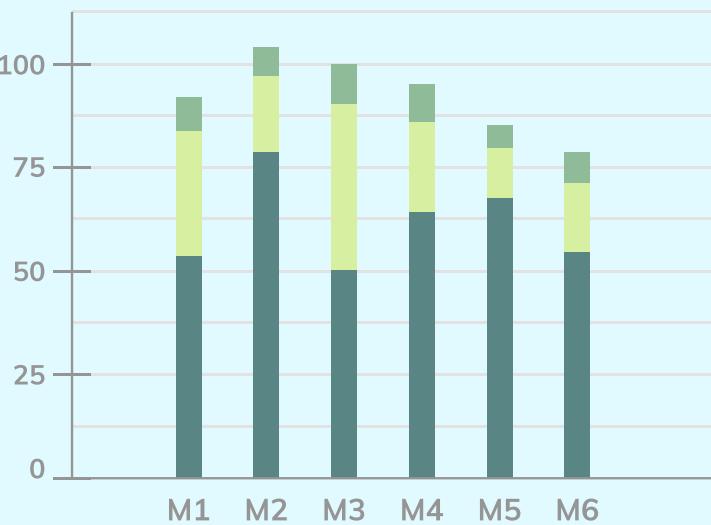
**Unlocking Societal Trends through Aadhaar
Enrolment & Update Patterns**

Objective of Project:

- To identify patterns, trends, and concentration areas in Aadhaar enrolment and updates by analysing UIDAI-provided datasets.
- The insights aim to support data-driven understanding of enrolment intensity, demographic distribution, and biometric authentication characteristics across regions and time.

APPROACH

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- Perform Exploratory Data Analysis (EDA) on the UIDAI Aadhaar enrolment dataset.
 - Clean and aggregate data using Python analytical tools.
 - Visualize insights using bar charts, line charts, pie charts, and heatmaps to identify key patterns and trends.
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DATASET USED :

- 1. Aadhar Enrolment Dataset (3 files)
- 2. Aadhar Demographic Dataset(5 files)
- 3. Aadhar Biometric Dataset(5 files)

STEPS :

- 1. Importing all the libraries
- 2. Loading the respective dataset-1
- 3. Analyzing the Data
- 4. Data Cleaning(Handling missing values)
- 5. The above 4 steps will be repeated for other datasets
- 6. Merge all the datasets in each folder together(After all datasets analysis is done)
- 7. At last we have shown 5 graphical visualization of these datasets in each file.

METHODOLOGY

DATA CLEANING AND PREPROCESSING

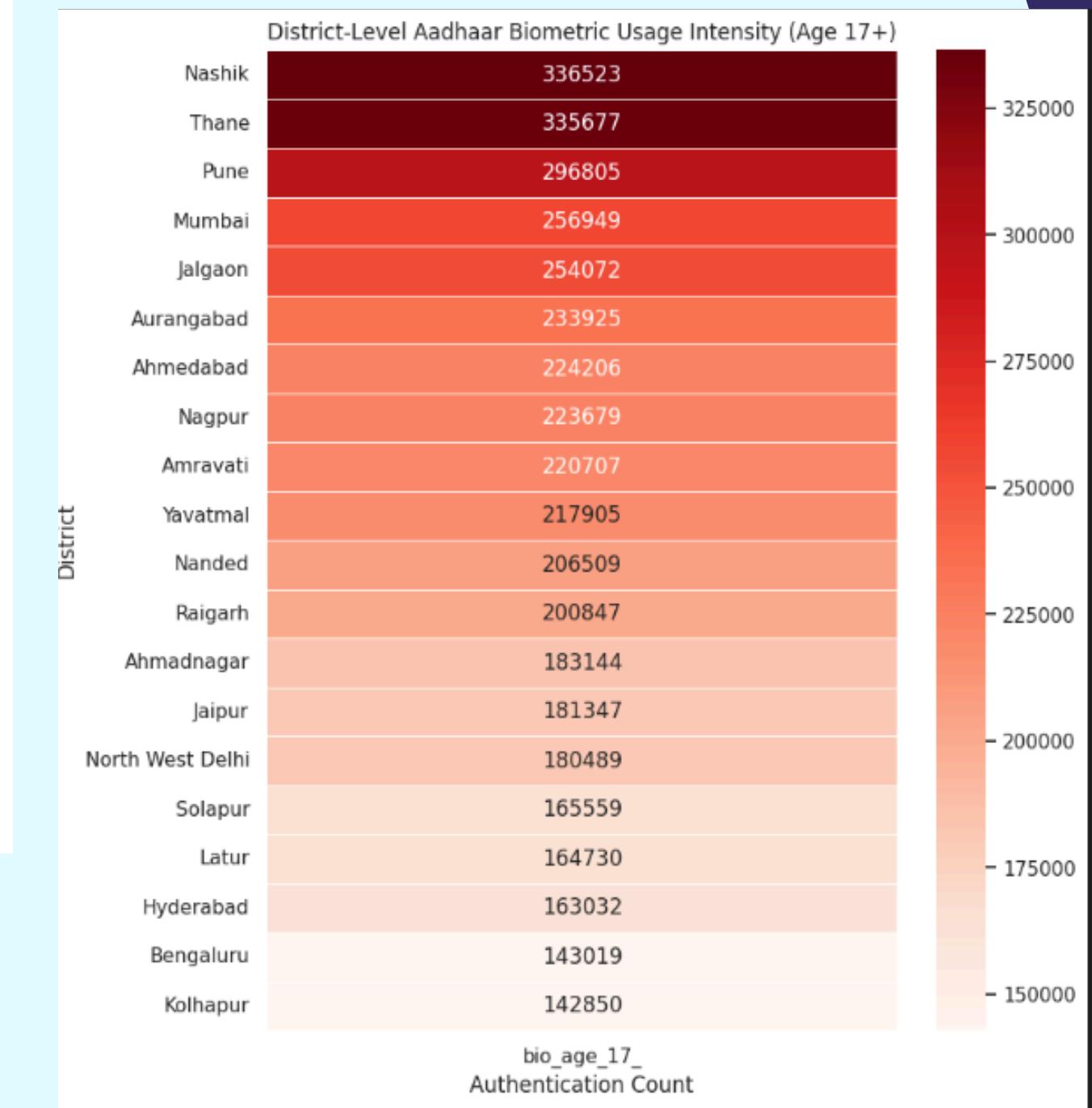
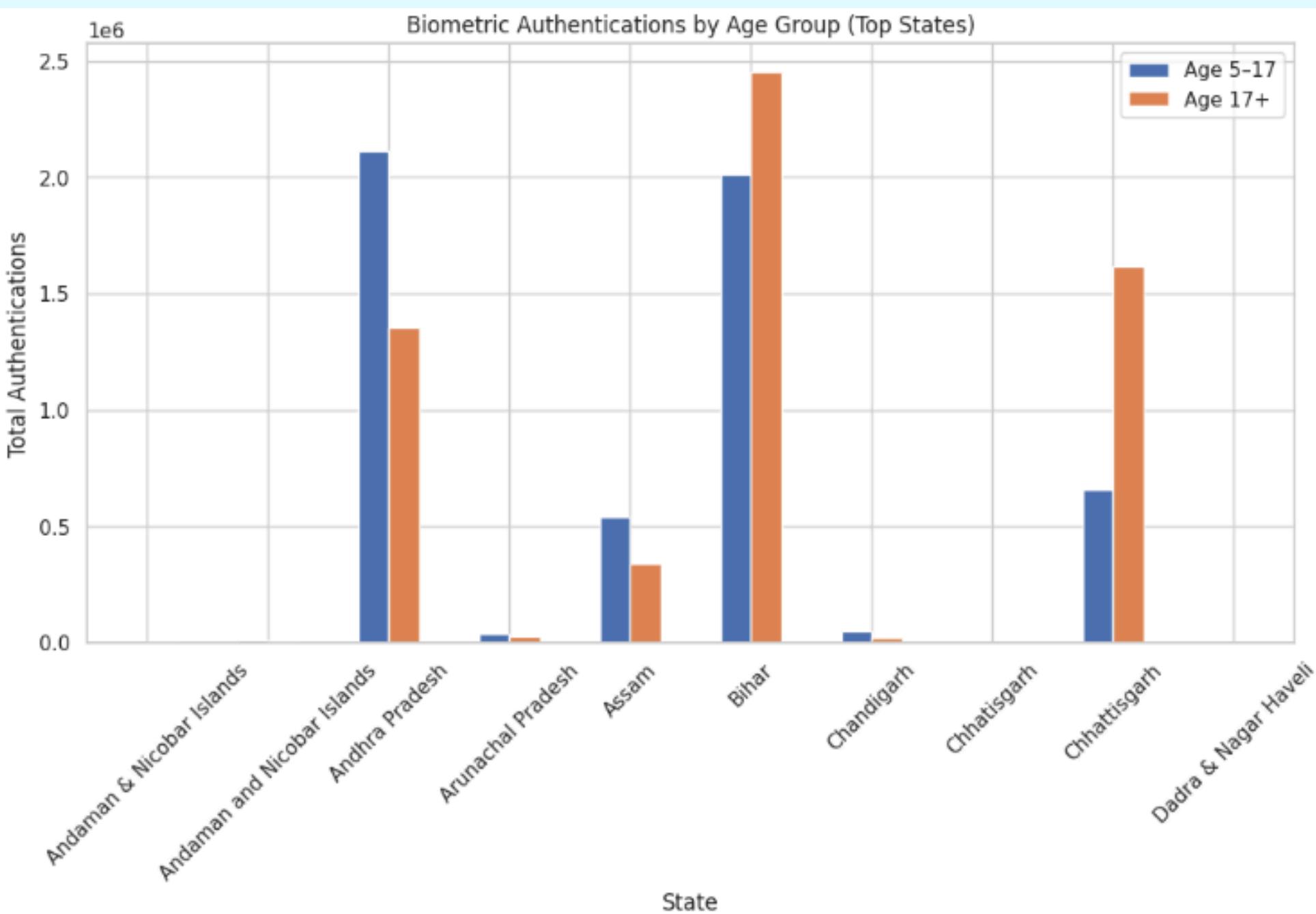
- Loaded the dataset using Pandas.
- Checked for missing values
- Converted the date column to datetime format for time-series analysis.
- Created a derived column:
 $\text{total_registrations} = \text{demo_age_5_17} + \text{demo_age_17_}$

DATA AGGREGATION AND TRANSFORMATION

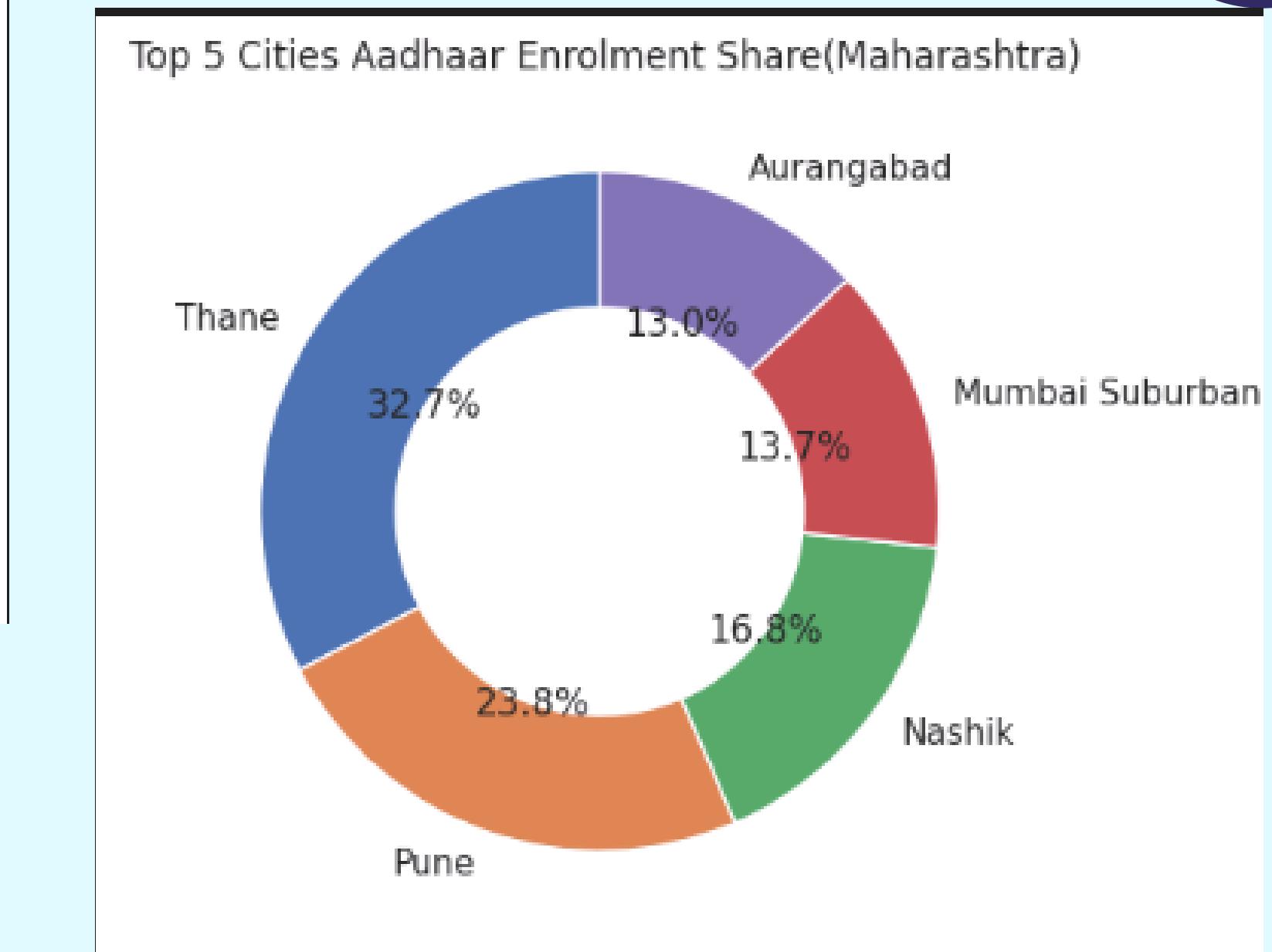
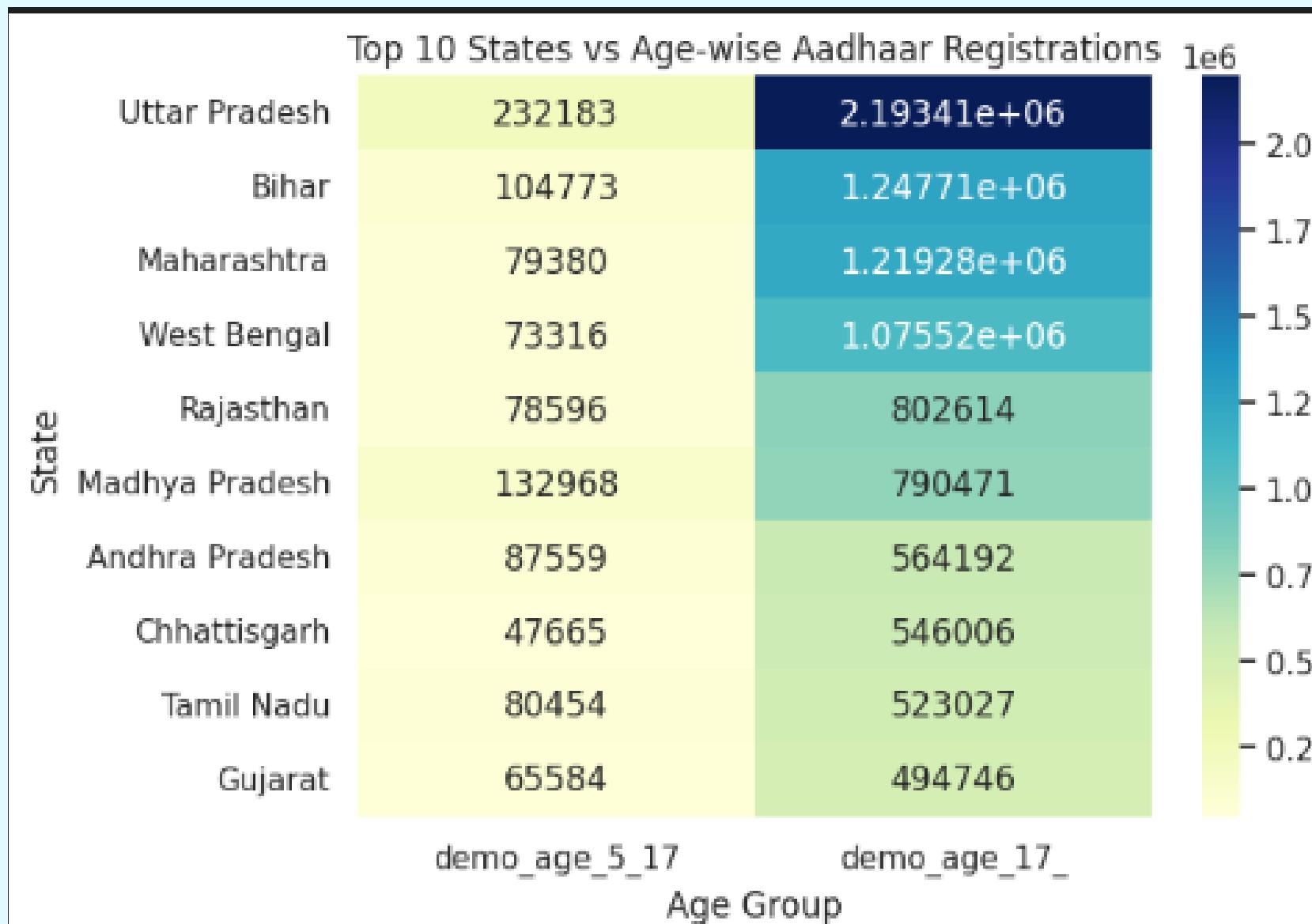
Aggregated data at multiple levels:

- State-wise total enrolments
- District-wise enrolment distribution
- Date-wise enrolment trends
- Age-group-wise contribution analysis

DATA ANALYSIS AND VISUALISATION

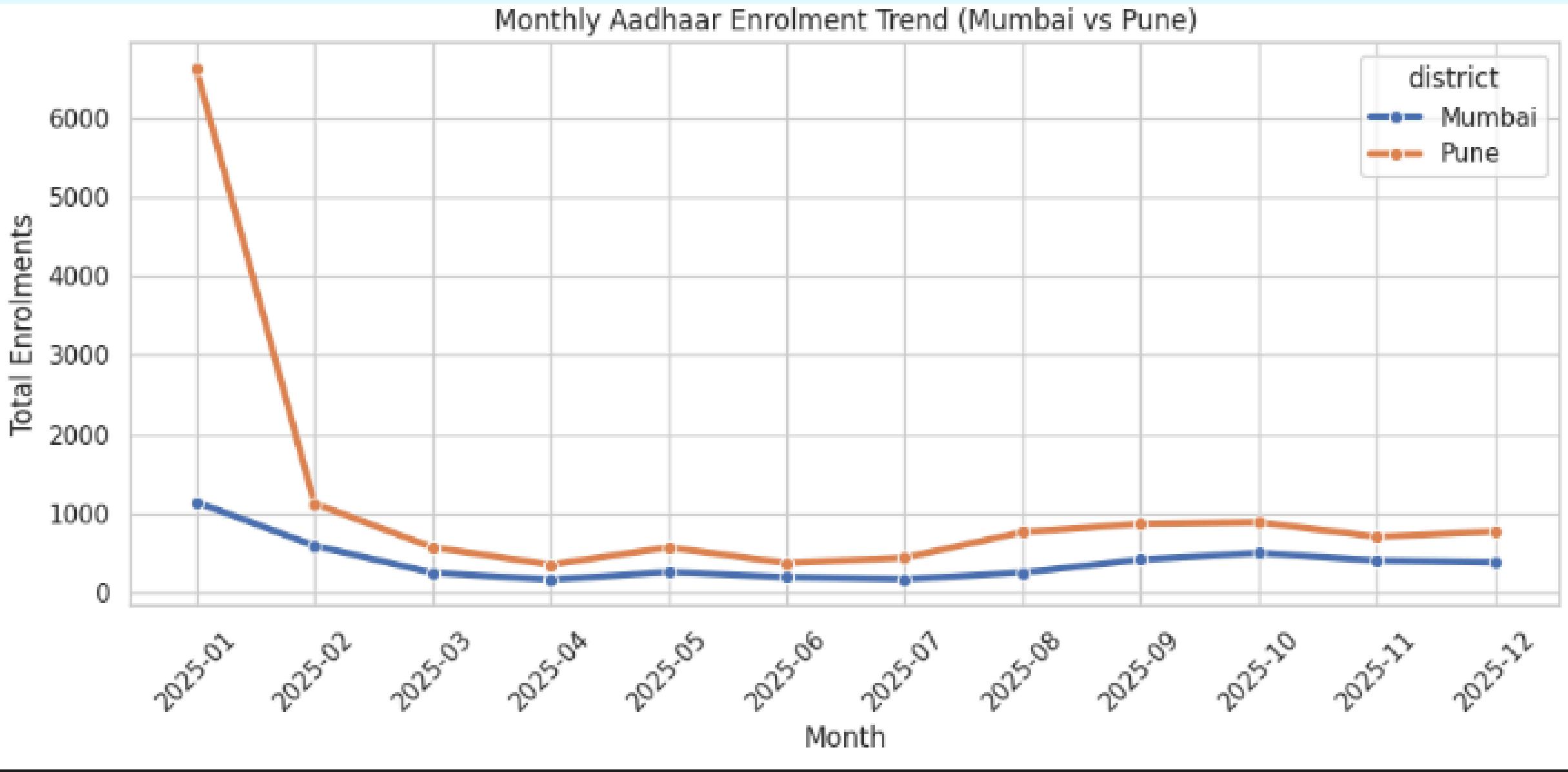


DATA ANALYSIS AND VISUALISATION

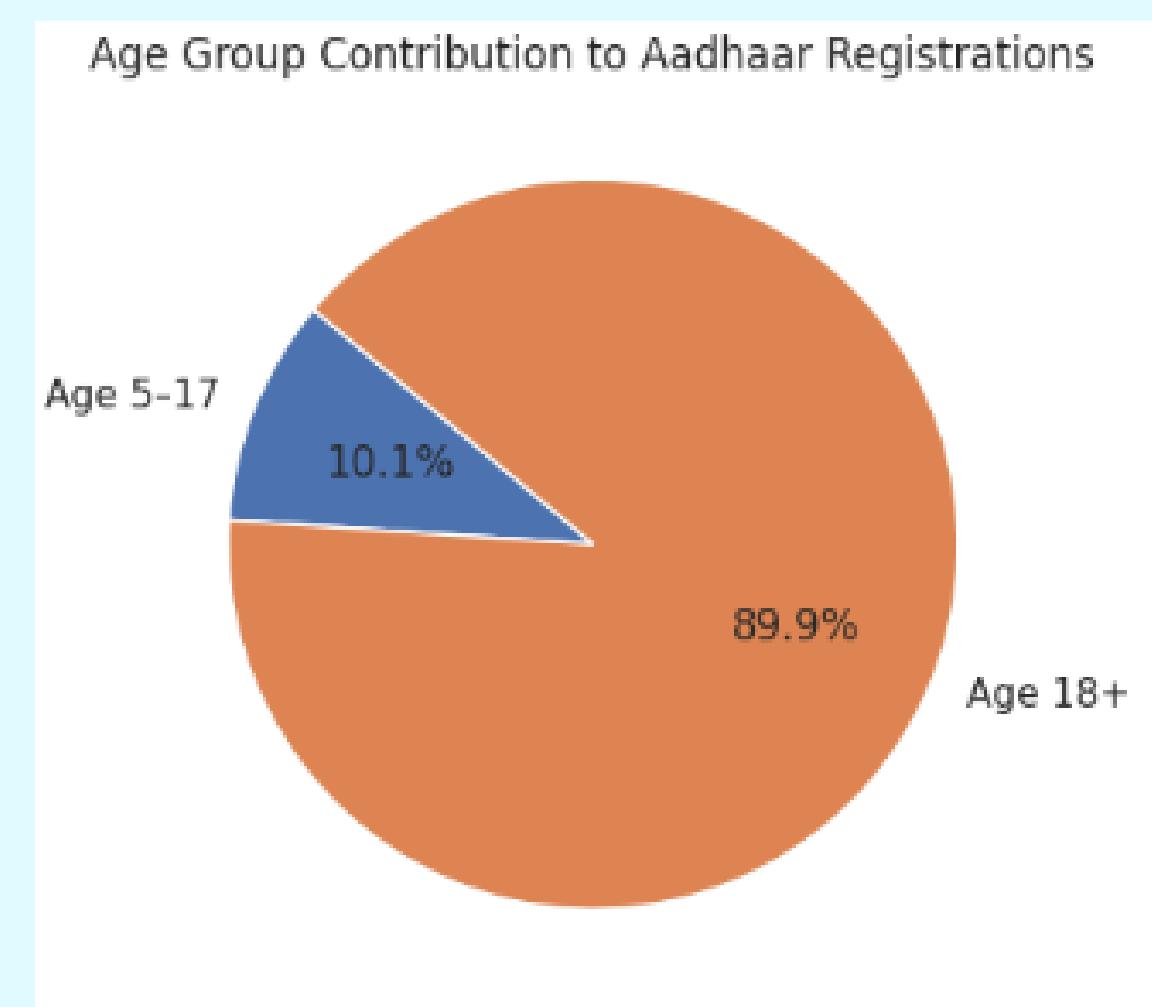


DATA ANALYSIS AND VISUALISATION

Monthly Aadhaar Enrolment Trend (Mumbai vs Pune)



Age Group Contribution to Aadhaar Registrations



TECHNICAL IMPLEMENTATION

- ◆ Tools & Libraries Used:

- Python
- Pandas - Data Manipulation,
- Matplotlib & Seaborn- Data Visualization
- Google Colab for interactive analysis.

- ◆ Code / Notebook:

- All analysis is performed in Google Colab and Code snippets are shared ahead.

THANK YOU