Enrolment Activity Analysis Report

1. Introduction

This report presents a comprehensive analysis of enrolment patterns using the provided dataset. The objective is to identify temporal trends, regional variations, and demographic patterns through visual and statistical exploration.

2.Dataset Overview

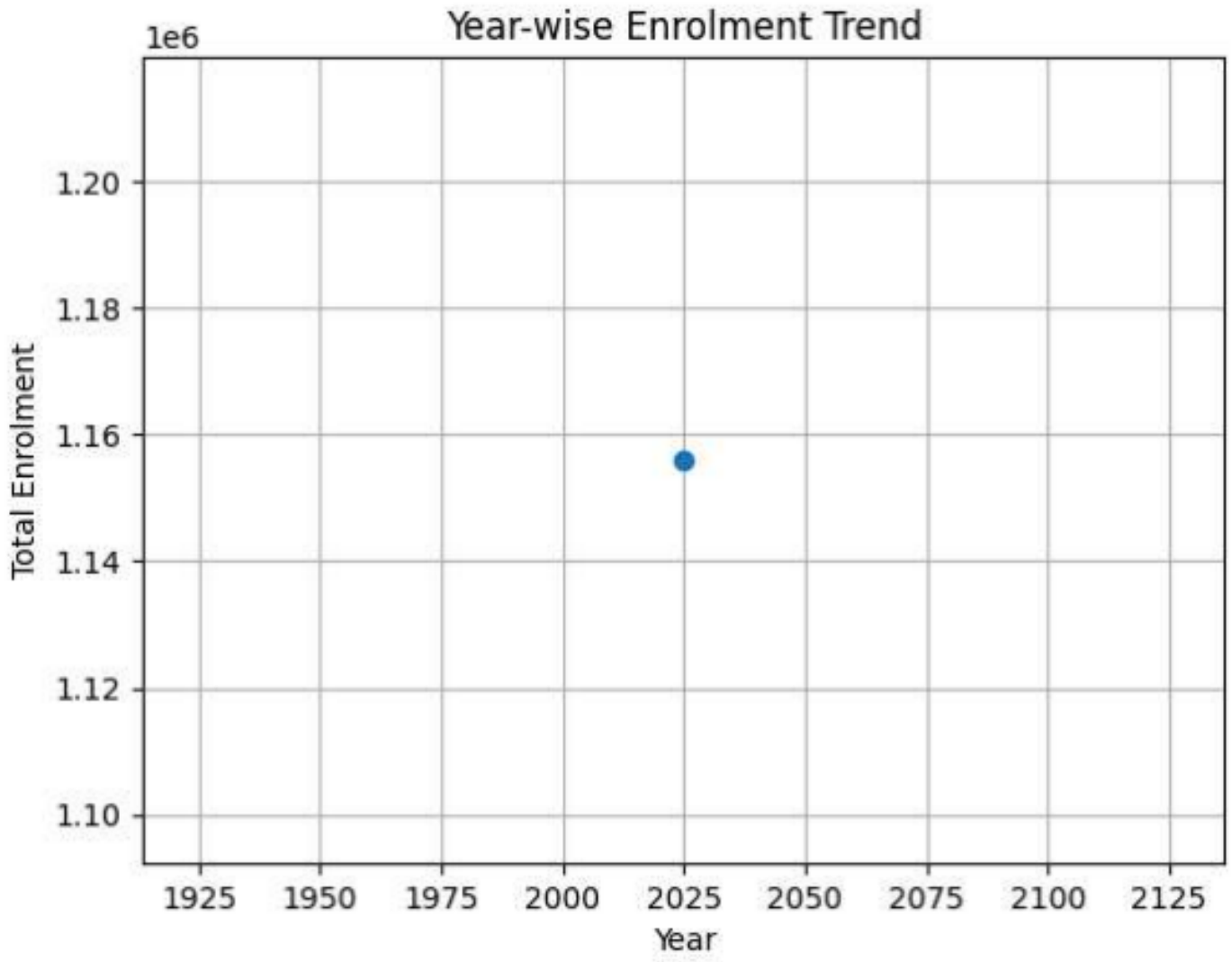
The dataset contains enrolment records categorized by date, state, district, pincode, and age groups (0–5, 5–17, and 18+). A derived column named 'total_enrolment' was created by summing the age group values.

3.Data Cleaning and Preprocessing

Data preprocessing involved converting date fields into datetime format, converting enrolment values to numeric form, handling missing values, and generating additional columns such as year and month for trend-based analysis.

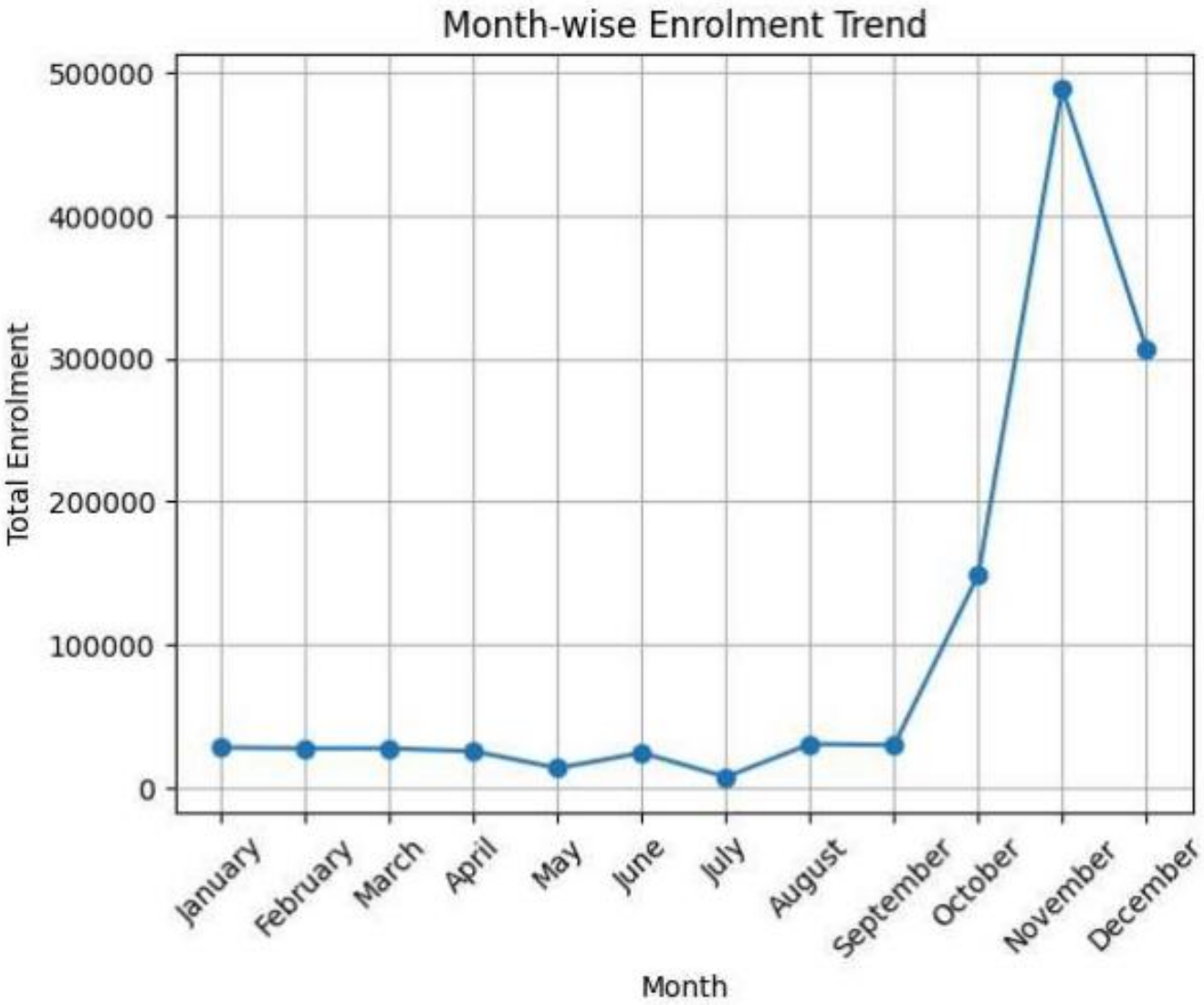
4. Year-wise Enrolment Trend

The year-wise analysis shows the overall enrolment progression over time, helping identify growth or stagnation periods.



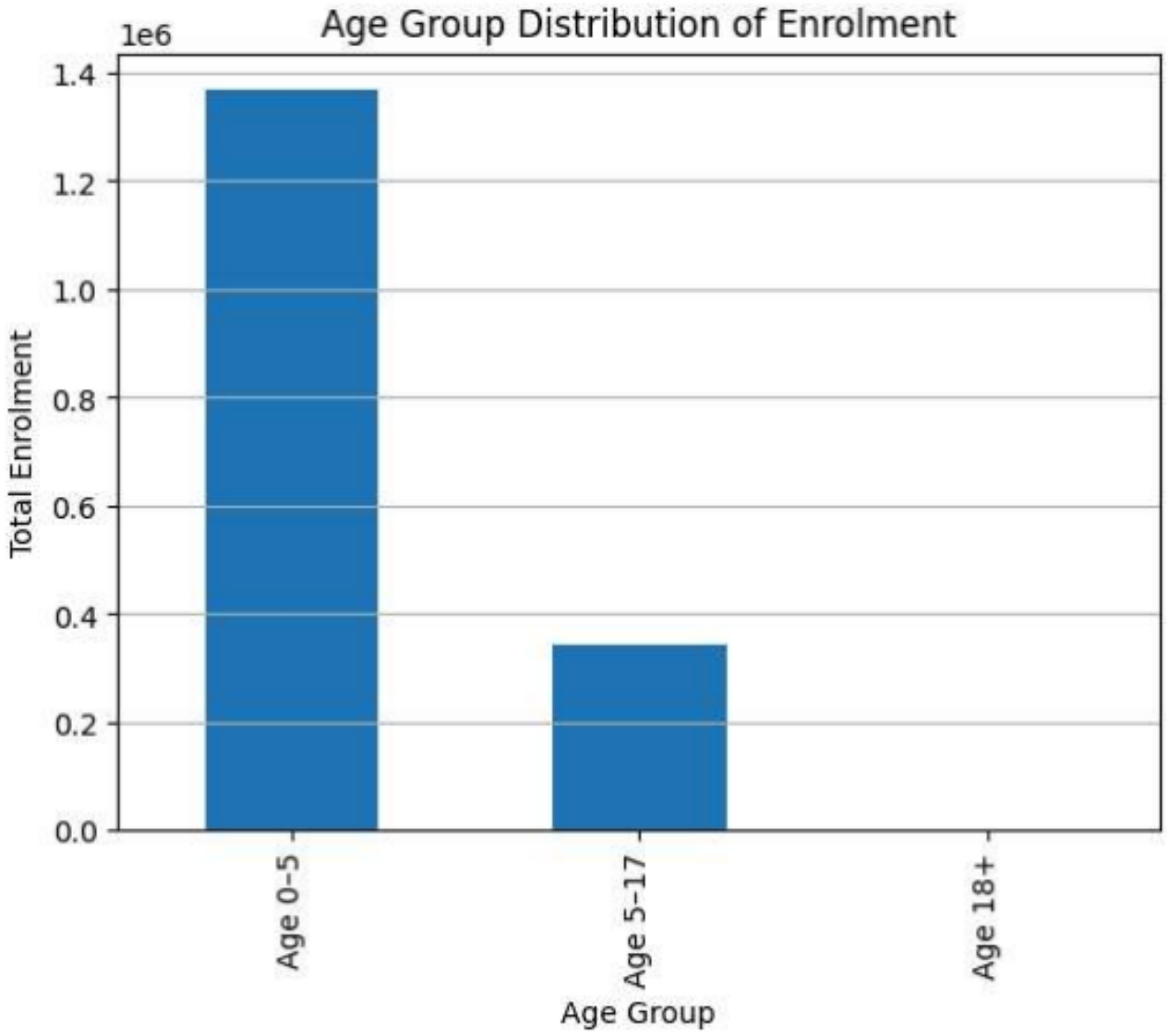
5. Month-wise Enrolment Trend

Month-wise analysis reveals seasonal spikes, with a visible increase during the later months of the year.



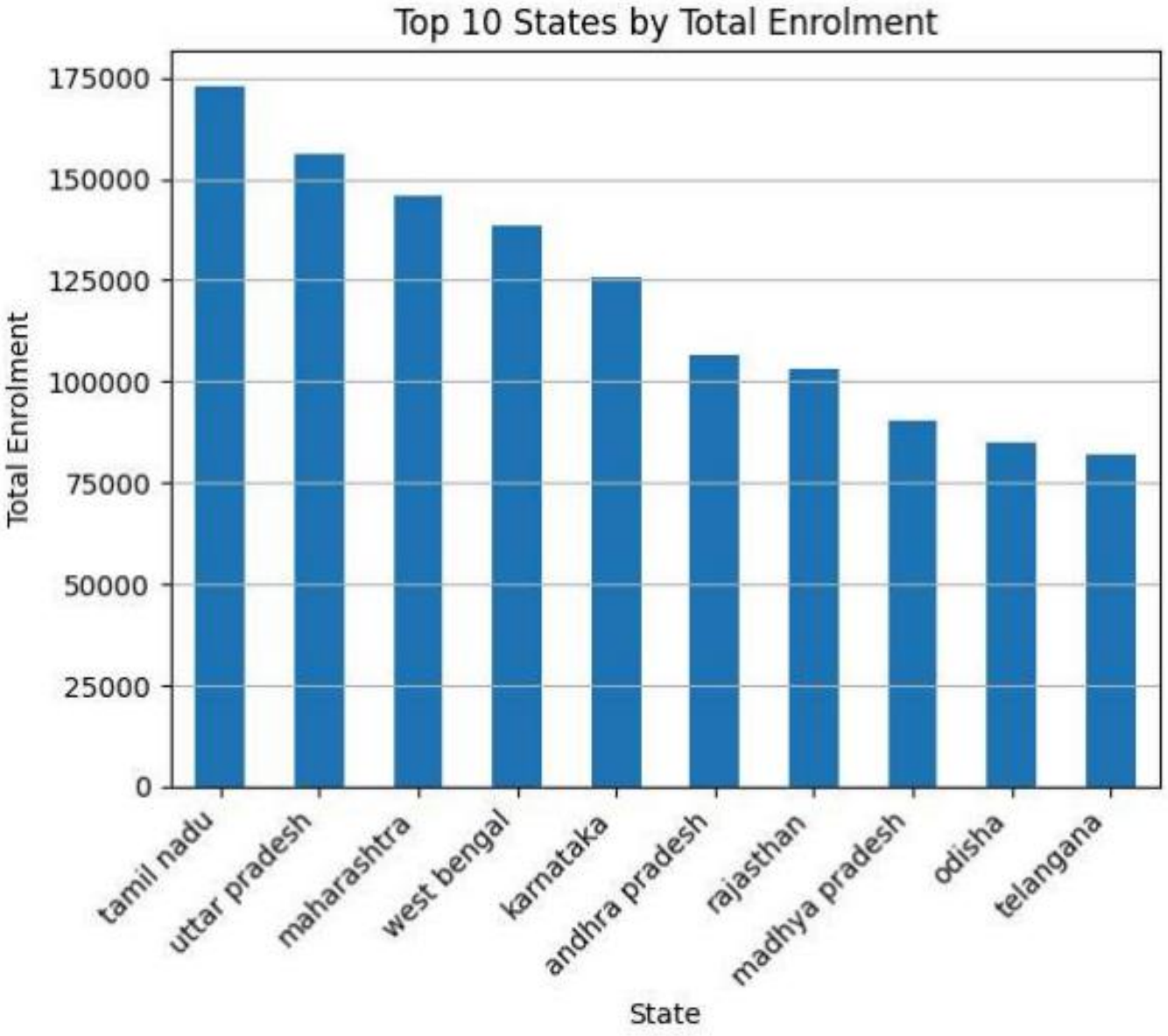
6. Age Group Distribution

The age group distribution indicates that the 0–5 age group contributes the largest share of total enrolments, followed by the 5–17 group. The 18+ category shows comparatively lower participation.



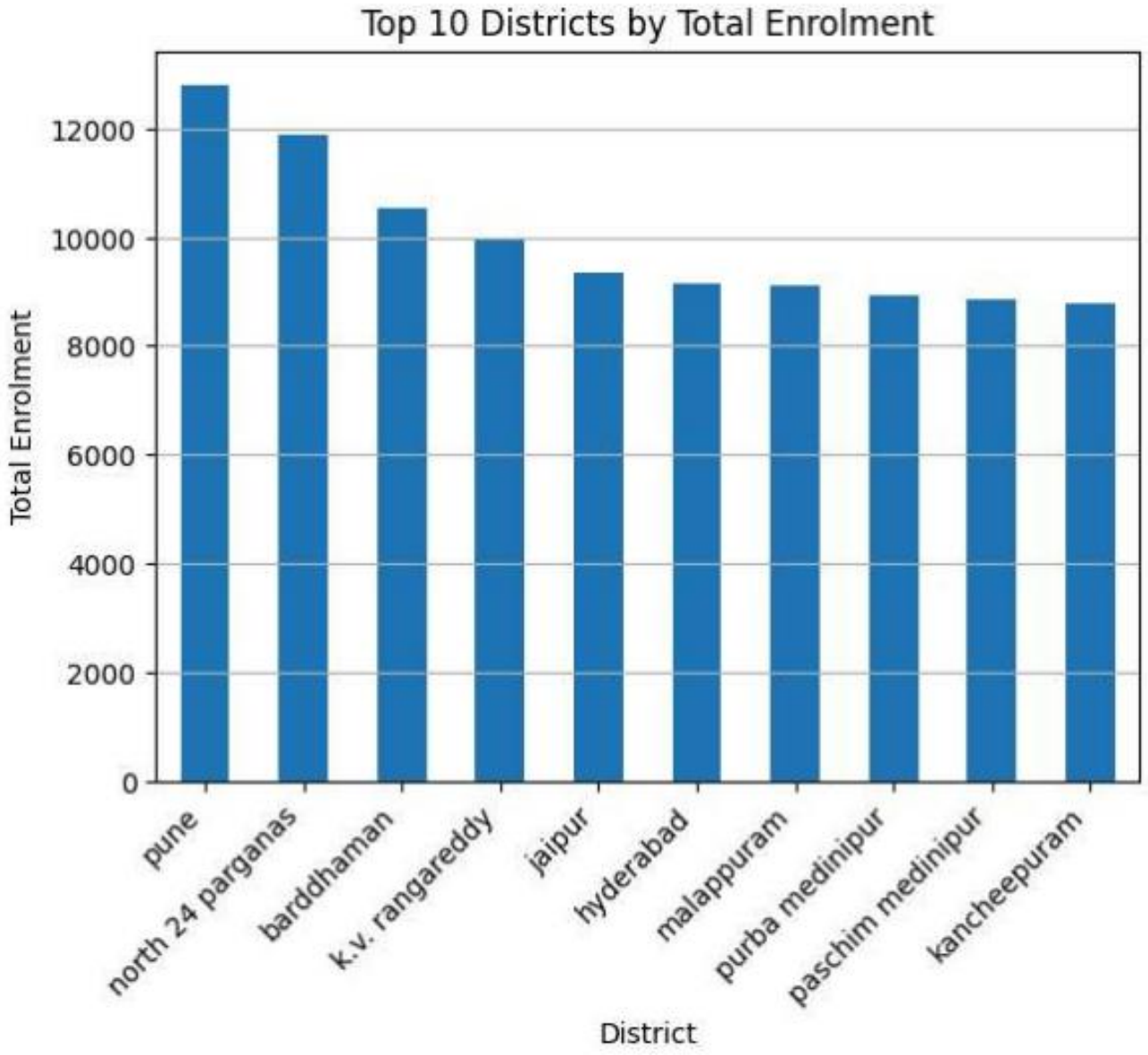
7. State-wise Enrolment Analysis

State-wise aggregation highlights Tamil Nadu, Uttar Pradesh, and Maharashtra as the top contributing states. This reflects higher population density and stronger administrative participation.



8. District-wise Enrolment Analysis

District-wise data shows that Pune, North 24 Parganas, and Barddhaman are major enrolment hotspots, indicating concentrated service demand.



9.Key Insights

- Tamil Nadu contributes the highest enrolment volume.
- Urban districts show higher enrolment concentration.
- Early childhood enrolments dominate the dataset.
- Seasonal spikes are observed in later months.
- Regional imbalance is clearly visible.
- District-level hotspots exist.
- Enrolment is not uniformly distributed.
- Administrative demand is region-specific.
- Targeted planning can improve outreach.
- Resource allocation should be hotspot-driven.

10. Conclusion

The enrolment dataset reveals strong geographic and seasonal trends. These insights can support data-driven decision-making, improve service accessibility, and optimize administrative planning.