**UDISE Plus 5-Year Education Trend Analysis (2019–2023)**

**Case Study Document**

**Project Overview:** This case study highlights the end-to-end process of analysing five years of education data from UDISE (Unified District Information System for Education) and building an interactive dashboard using Tableau Public for decision-making and policy insights.

**Objectives:**

1. Transform raw UDISE data into meaningful visual insights.

2. Analyze trends across student enrolment, gender equity, and teacher availability.

3. Build a professional Tableau dashboard with filters, KPIs, and storytelling elements.

4. Present insights that support decision-making for education stakeholders.

**Tools Used:**

• Tableau Public

• Excel/CSV for preprocessing

• Basic data cleaning and transformation techniques

**Data Description:**

The dataset covers multiple states across India for the years 2019 to 2023 and includes:

• Total Students

• Girls Enrolments

• Boys Enrolments

• Total Teachers

• Total Schools

• Pupil Teacher Ratio (PTR)

• State-wise distribution metrics

**Dashboard Features:**

1. KPI Summary:

- Total Schools

- Total Teachers

- Total Students

- Pupil Teacher Ratio (PTR)

2. Trend Visualizations:

• Growth of Girls Enrollment (Top 5 States)

• Trend of Total Students (Top 5 States)

• Student YoY Growth (%)

3. Comparative Visuals:

• Average PTR Ratio (Top 20 States)

• State-wise Total Students Treemap

4. Filters for Interactivity:

• Year Filter (2019–2023)

• State Filter (All States)

5. Insight Section:

Provides narrative summary highlighting the major findings from the dashboard.

Key Insights:

• Total student enrollment shows steady growth over the years, with a strong rise in 2023.

• Girls enrollment trends upward in key states such as Bihar and Maharashtra.

• PTR indicates notable teacher shortages in high-population states.

• States like Uttar Pradesh, Maharashtra, and West Bengal lead in total student count.

• The treemap highlights distribution differences across states.

**Impact and Outcome:** The dashboard provides policymakers and education analysts with an intuitive view of national education patterns. By integrating trends, comparisons, and insights, it enables data-driven decisions and long-term planning for the education sector.

**Skills Demonstrated:**

• Data Visualization

• Dashboard Design

• Storytelling with Data

• Analytical Thinking

• Tableau Filters and Calculations

• Layout & Formatting for Professional Dashboards

**Conclusion:** This UDISE dashboard project showcases a full analytical workflow—from raw data transformation to advanced visualization and insight generation. It is suitable for portfolio display, interviews, and presentations to demonstrate practical analytics skills.

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