**"EuroEduTrends: Analyzing Educational Indicators in European Nations**

**Abstract**

This Power BI data analysis project delves into education indicators sourced from the World Bank Open Data, employing a methodology cantered around data cleaning, transformation, and visualization. The report focuses on key aspects such as government expenditure on education, enrolment rates, literacy rates, educational attainment, teacher-to-student ratios, gender disparities, public spending per student, and graduation rates. The implementation of Data Analysis Expressions (DAX) is integral to this project, enhancing analytical capabilities. DAX plays a crucial role in summarizing and aggregating data, facilitating dynamic analyses for a richer understanding of education trends across Europe.

**Dataset**

The dataset is derived from the World Bank Open Data, housing education indicators. It encapsulates information on government spending, enrolment rates, literacy rates, educational attainment, global achievements, gender disparities, and graduation rates, providing a comprehensive European view of education.

https://databank.worldbank.org/source/education-statistics-%5E-all-indicators

**Methodology:**

1. **Data Collection:**
   * Extracted education indicators data from the World Bank Open Data.
2. **Data Cleaning and Transformation:**
   * Addressed missing values, outliers, and inconsistencies.
   * Applied transformations to format columns and ensure data alignment.
3. **Merging Data Tables:**
   * Utilized left outer joins for merging tables, replacing traditional relationships.
   * Ensured comprehensive inclusion of data from dimension tables into the fact table.
4. **DAX Implementation:**
   * Calculate the percentage of female enrolment in primary, secondary, and tertiary education.
   * Compute the average literacy rate across different age groups.
   * Determine the education gap by subtracting the youth literacy rate from the adult literacy rate.
   * Analyse the trend in graduation rates over time.
5. **Data Visualization:**
   * Developed visualizations using merged data, employing various chart types.
   * Visualized insights with line charts, bar charts, donut chart, maps, and pie charts.