

Summary of the Analysis on Olympics Dataset

Dataset Used: The analysis is based on the dataset "**dataset_olympics.csv**", which contains information about Olympic events, athletes, and results.

Data Preprocessing:

- The dataset underwent preprocessing, including handling missing values and data cleaning to ensure accuracy.
- Some columns were adjusted for consistency in data types.

Key Analysis & Insights:

- **Medal Distribution:** Charts visualize the distribution of gold, silver, and bronze medals across different countries.
- **Top Performing Countries:** A ranking of nations based on their overall Olympic performance was derived from the dataset.
- **Athlete Performance:** Individual performances of athletes were analyzed, highlighting notable winners.
- **Sport Popularity:** The dataset was used to examine which sports have the highest number of events and participation over the years.
- **Trend Analysis:** Historical trends in Olympic participation and country-wise performance were explored.
- **Gender Representation:** A study on the gender ratio among athletes over different Olympic events.

Visual Representations:

- A total of **15 charts** were generated to illustrate key findings, including bar charts, line graphs, and distribution plots.
- These visuals provide insights into medal counts, trends, and athlete participation.

Conclusion: The analysis provides a detailed breakdown of Olympic trends, highlighting the dominance of specific countries and sports over time. Gender participation trends and other key metrics offer valuable insights into the evolution of the Olympics.