**Title:**

Olympic Power BI Dashboard Analysis

**Introduction:**

The Olympic Power BI Dashboard provides an insightful analysis of the Olympic Games' data using two primary datasets: "athlete\_events" and "country\_definition." This project explores the performance of athletes, nations, and gender representation in various Olympic events. It offers a comprehensive understanding of the key trends and statistics in the history of the Olympics.

**Objectives:**

- To analyze Olympic medals distribution by gender.

- To visualize the trend of male and female athlete participation over the years.

- To identify the top 10 countries based on the total number of medals won.

- To highlight the top Olympic medalists by total medal count.

- To determine the total number of participating countries in the Olympic Games.

- To analyze the total number of sports featured in the Olympic Games.

**Scope of Work:**

This project focuses on creating a dynamic and interactive Power BI dashboard that covers historical Olympic data, gender-based analysis, and the performance of countries and athletes. It aims to provide users with an easy-to-navigate visual representation of key statistics and trends related to the Olympic Games.

**Features:**

**1. Medals Won by Gender %:** A graphical representation of the distribution of medals based on gender, providing insight into the contribution of male and female athletes.

**2. Male and Female Ratios by Year:** A year-wise comparison of male and female athlete participation, showing how gender representation has evolved.

**3. Top 10 Countries by Medals:** A leaderboard of the top 10 nations with the most Olympic medals, offering a country-wise breakdown.

**4. Top Olympic Medallists by Total Medals:** A list of the highest-ranking athletes based on their total medal count.

**5. Total Number of Participating Countries:** A count of the countries that have participated in the Olympic Games.

**6. Total Number of Sports:** A breakdown of the number of sports featured in the Olympics, illustrating the diversity of the games.

**Methodology:**

**1. Data Preparation:** Two datasets were utilized: "athlete\_events" and "country\_definition." The data was cleaned and processed to remove duplicates and errors.

**2. Data Modeling:** Relationships between tables were established using the "noc" column to connect athlete data with country information.

**3. Visualizations:** Power BI was used to create interactive visuals such as pie charts, bar graphs, and tables to answer the problem statements.

**4. Insights:** Filters and slicers were added to allow users to explore the data in detail, filtering by year, gender, country, and event type.

**Tools and Technologies:**

- **Power BI:** The primary tool used for data visualization and dashboard creation.

- **Excel:** For data cleaning and preparation.

- **DAX (Data Analysis Expressions):** For creating calculated fields and measures in Power BI.

**Conclusion:**

The Olympic Power BI Dashboard offers a powerful tool to explore historical Olympic data, revealing trends in gender participation, top-performing countries, and athletes. This project not only highlights key Olympic statistics but also enables users to dive deeper into the data to gain specific insights about the games, making it a valuable resource for sports analysts and enthusiasts.