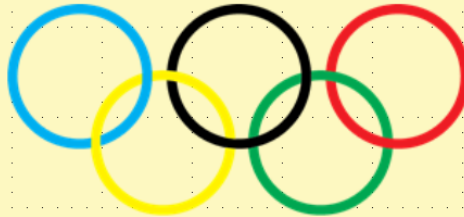


# Olympic Games

Goal: To present Olympic performance of Summer Olympics between  
1992-2012



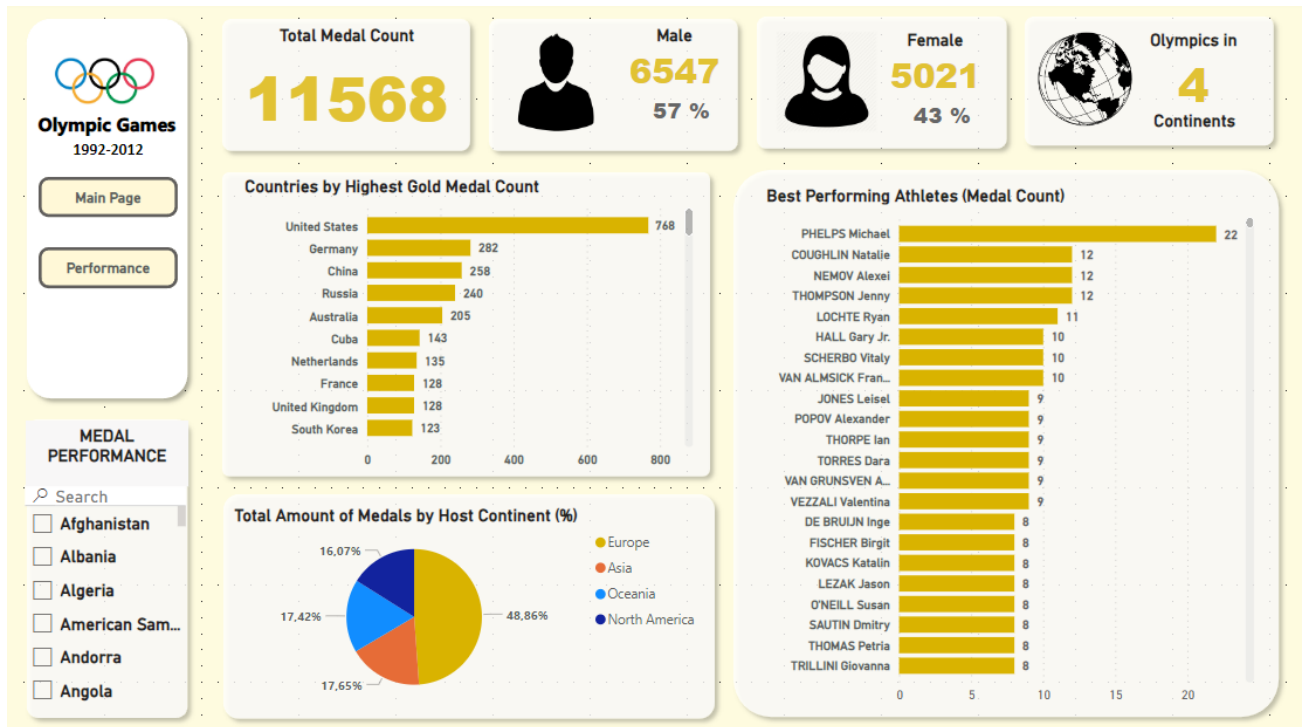
I've been working with a dataset covering Winners of the Summer Olympic Games from 1896 to 2012, consisting of multiple CSV files. However, I decided to focus specifically on the period between 1992 and 2012. This period was particularly significant for my home country, Lithuania, as it marked its independence.

The project's objective was to showcase the metrics of the top-performing countries and athletes during this specific period. Leveraging visualization tools, my aim was to create an informative, appealing and user-friendly dashboard.

**I began by importing the CSV files into Power BI and then performed several data modeling steps:**

- 1) Removed unnecessary columns.
- 2) Promoted headers to properly label the columns.
- 3) Utilized a CONCAT function to combine the cities where the Olympic games were held with their respective years.
- 4) Adjusted data types for accuracy.
- 5) Employed filters to isolate the dataset to the 1992-2012 period.
- 6) In the 'Model View,' established connections between all tables using their foreign keys.

### 'Main page' visualizations using Power BI:



- 1) Utilized Card visualizations to showcase:
  - The count of World Continents where Olympic games were hosted between 1992 and 2012.
- 2) Implemented navigation buttons named 'Main page' and 'Performance' within the dashboard, facilitating easy switching between report pages using bookmarks.
- 3) Employed the DAX function COUNTROWS to compute the total count of medals. The formula used was:
  - TotalMed = COUNTROWS('Olympic Data')
- 4) Performed calculations to determine the total number of participants by gender:
  - Calculated the count for females using DAX formula: Women = CALCULATE([Total Med], 'Olympic Data'[Gender] = "Women")
  - Calculated the count for males using DAX formula: Men = CALCULATE([Total Med], 'Olympic Data'[Gender] = "Men")

5) Computed the percentage using DIVIDE function:

- % Female =  $\text{DIVIDE}([\text{Women}], [\text{Total Med}])$
- % Male =  $\text{DIVIDE}([\text{Men}], [\text{Total Med}])$

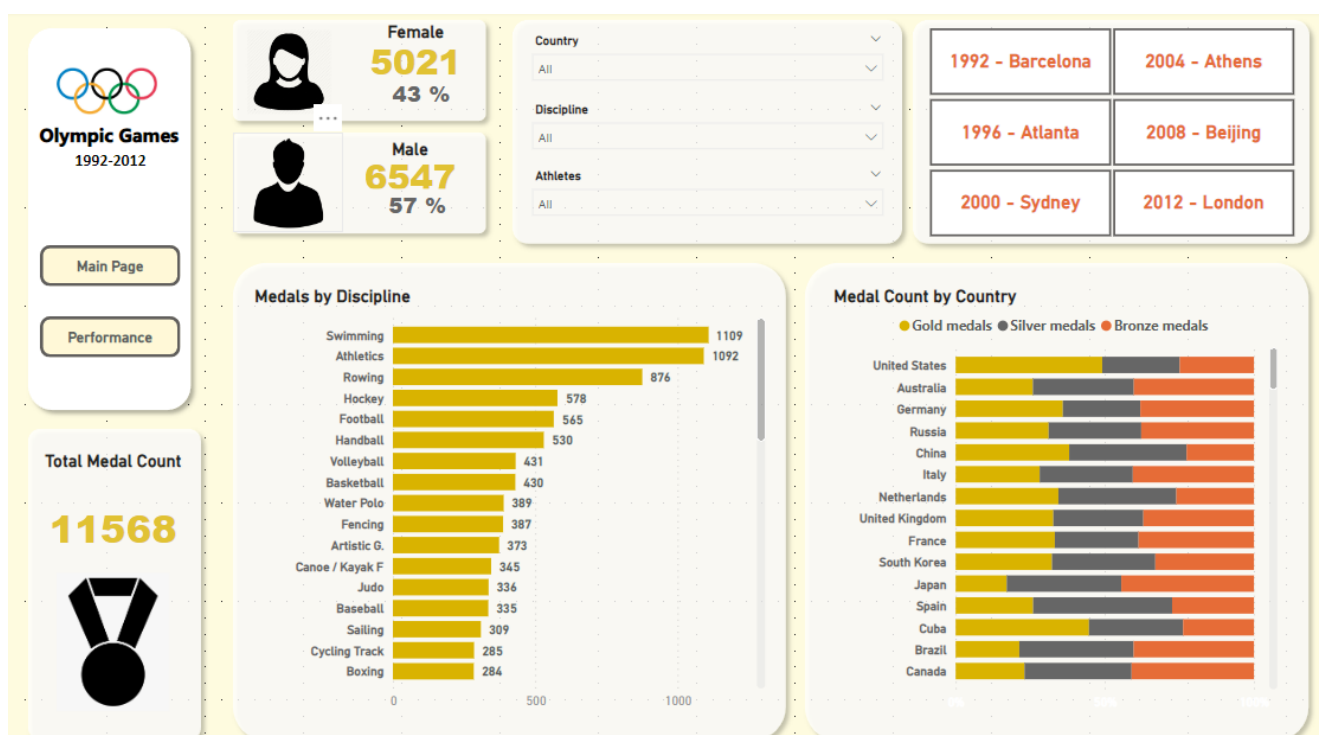
6) Utilized a Clustered bar chart to visualize top countries with the highest count of gold medals. This necessitated the calculation of total gold medals:

- Gold medals =  $\text{CALCULATE}([\text{Total Med}], 'Olympic Data'[\text{Medal}] = "Gold")$

7) In the 'Main page' report page I decided to use card visualizations for overview of general data. I used 'edit interactions' function to remove interactions for the cards and pie chart. Left active interactions between 'Vertical list' slicer and clustered bar charts named: 'Countries by Highest Gold Medal Count' and 'Best Performing Athletes (Medal Count)'.

8) Implemented a Vertical list slicer and a Clustered bar chart to identify best-performing athletes based on medal count. The slicer functionality assists in narrowing down the search, allowing comparison of best performers across countries or for a specific country.

### On the 'Performance' report page:



- 1) Utilizing the 'edit interactions' function on the 'Performance' report page, I ensured interrelation among slicers, cards, and charts for enhanced user interaction.
- 2) Placed at the upper right, a 'Tile' type slicer allows users to filter Olympics by date and location, offering the flexibility to select specific years or multiple locations for analysis.
- 3) Positioned in the upper middle are three 'Dropdown' type slicers, enabling a search function for filtering data by Country, Discipline, and Athletes.
- 4) Two card visualizations, positioned slightly to the upper left, display the count of Male and Female athletes who earned medals. These cards dynamically adjust based on slicer selections, showcasing the distribution between genders in numbers and percentages.
- 5) The stacked bar chart 'Medal Count by Country' presents comprehensive data on each country's performance. The Y-axis lists countries, while the X-axis illustrates the total count of gold, silver, and bronze medals in distinct colours, enhancing user experience. Tooltips provide additional insights with the number of Total medals won.
- 6) The clustered bar chart provides information on total medals won by discipline, sorting the axis based on the descending order of Total Medals won, offering clear insights into medal distribution across various disciplines.

I have successfully met all the objectives by creating a report that highlights top-performing countries and athletes. Through the implementation of slicers, I've provided users with the flexibility to navigate the dataset, allowing them to expand or narrow their search criteria. Users can compare the performance of countries and athletes across disciplines.

I utilized visualization tools to create a user-friendly report that can be easily understood by different groups of people, ensuring accessibility and understanding for all users. As a data analyst, my goal extends beyond data management, query running and data modelling. It involves extraction of the complex findings and translating them into easily understandable language for a broad audience.