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| **Athletes Analysis** | **Demographic Segmentation:**  Analysing the athletes by age, gender, height, and weight. Identifying average physical attributes for different sports or historical periods; observe gender participation ratios over time. | **Career Trajectories:**  Tracking individual athletes (person\_id) across multiple games\_id and event\_id.  Insights: Determine athlete longevity, identify multi-Olympic participants, and trace performance progression or decline over a career. | **Physical Trait Correlation:**  Studying the correlations between physical dimensions (height and weight) and sports performance (e.g., medal attainment and participation in designated sports). |
| **Games Analysis** | Temporal Patterns:  Analyse the frequency of games over games\_year, noting any deviations from standard cycles (e.g., 4-year gaps, specific 2-year gaps post-1992). Examine the distribution of Summer vs. Winter season games across the dataset's history. | Event Scale & Renaming:  Track the total number of unique games\_id entries. Observe any patterns or changes in games\_name conventions across different years. | Hosting Dynamics:  Identify all unique city\_name that have hosted the games.  Determine which cities or region\_name have served as repeat hosts and the intervals between their hosting duties. |
| **Events Analysis** | Event Structuring:  Determine the number of distinct event\_name associated with each sport\_name. | Event-Specific Participation:  Analyse the number of competitors\_id participating in specific event\_id as a proxy for event popularity or scale. | Sporting Landscape Diversity:  Compute the aggregate number of unique sport names present in the full dataset. Analyse the emergence, termination, or reintroduction of specific sports across various game years. |
| **Region Analysis** | **Athlete Profile:**  Compute average age, height, and weight of participants from different region\_name. Compare gender ratios among athletes from various region\_name over different games\_year. | **Geographic Representation:**  Determine the distribution of person\_id by region\_name for each games\_year. | **Participation Trends by Region:**  Quantify the total number of person\_id representing each region\_name across all games. |
| **Medal Analysis** | **Medalist Attributes**:  Identify person\_id with the highest number of medal\_id and analyze their sport\_name and region\_name. | **Sport-Specific Medal Dominance:**  Determine sport\_name sport\_name where a particular region\_name demonstrates consistent and overwhelming dominance in medal accumulation. | **Medal Breakdown:**  Total count of medal\_id (Gold, Silver, Bronze) awarded throughout all Olympic Games. |