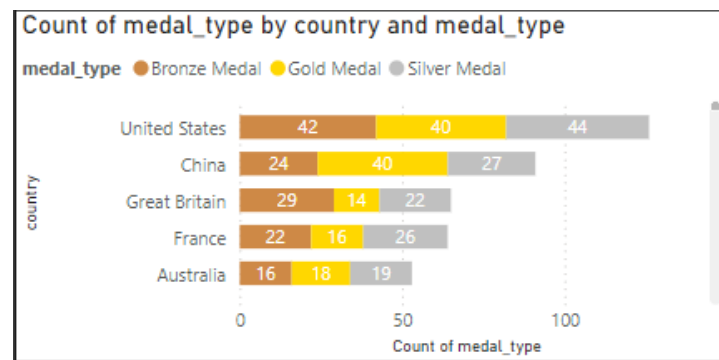


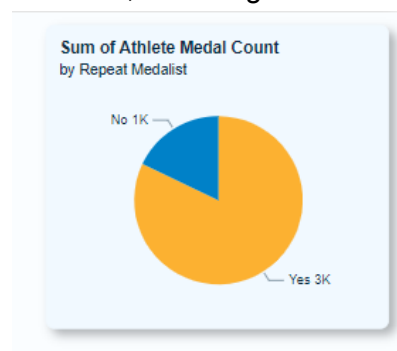
MEDALS DATASET RESEARCH QUESTIONS

(need total 8, 3 done, need 5, make sure they are not duplicated and adds new info and not repeated in the other page)

- 1) Which countries dominate the medal tally and how do the distributions of Gold, Silver, and Bronze medals vary across countries?
 - a) The United States leads in overall medal counts with a total of 126 medals across all types, other top-performing countries include China, Great Britain, France, and Australia.
 - b) The United States has a balanced distribution across all medal types, with slightly higher counts in Silver Medals (44) and Gold Medals (40). China excels in Gold Medals (40), which is their highest count, showing strength in first-place finishes. Great Britain has more Bronze Medals (29) compared to their Gold and Silver medals, indicating competitive participation. France shows similar trends, with slightly more Bronze Medals (22) than other types. Australia maintains a balanced medal tally but with lower overall counts than the top-performing nations.

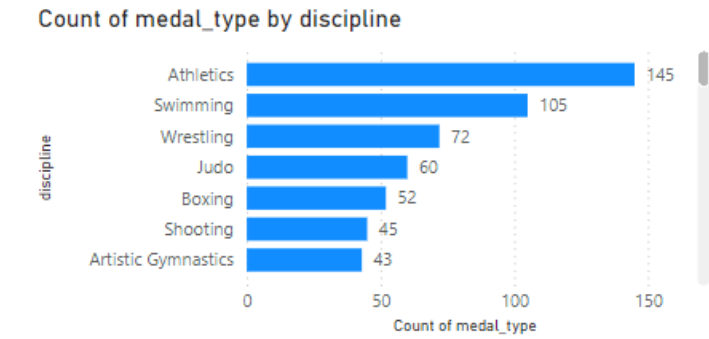


- 2) What proportion of athletes are repeat medalists compared to single-medal winners?
 - a) Repeat Medalists ("Yes") contribute significantly to the total medal count, making up approximately 75% (3K medals) of the total. Single-Medal Winners ("No") account for a smaller portion, contributing 25% (1K medals). Showing that athletes who win multiple medals are eager for more successes for their countries, reflecting their consistency and performance across events.



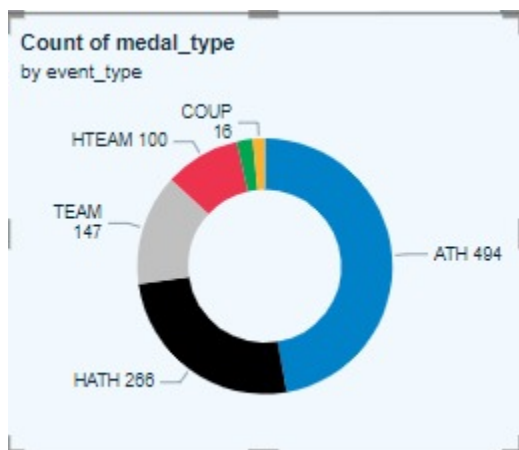
3) Which disciplines award the most medals?

- a) Athletics dominates the medal tally by a significant margin with 145 medals, followed by Swimming with 105 medals. Wrestling (72 medals) and Judo (60 medals) are also notable contributors to the overall medal count. Disciplines like Boxing (52 medals), Shooting (45 medals), and Artistic Gymnastics (43 medals) contribute a fair number of medals but are less competitive than Athletics and Swimming.



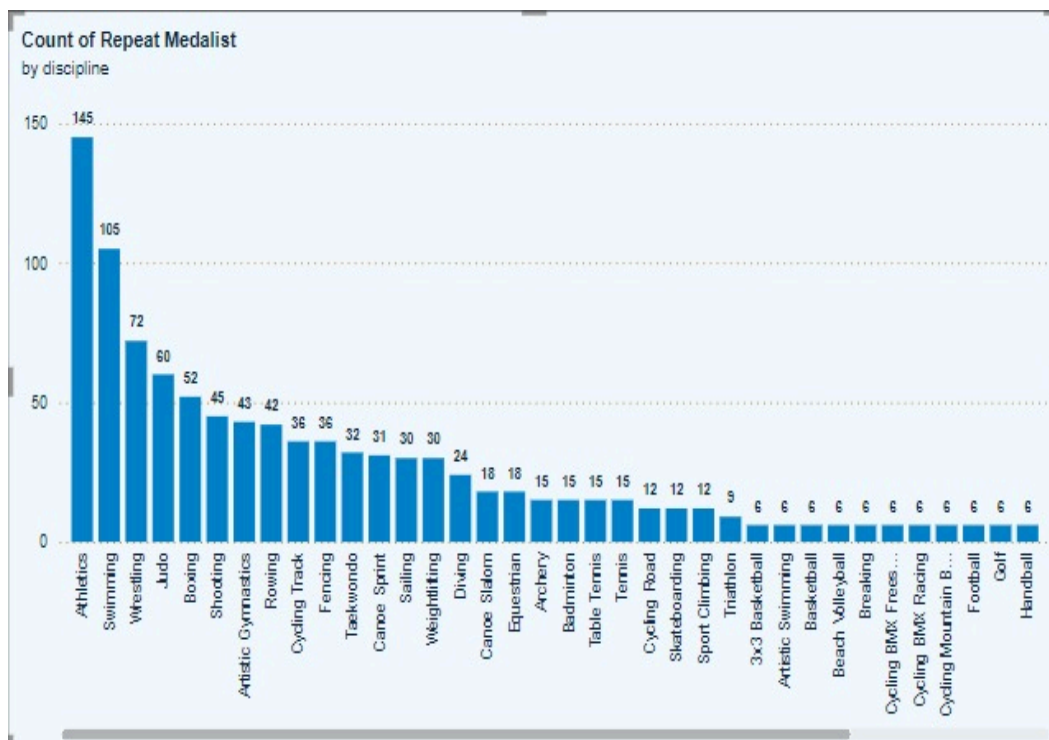
4) How do medal counts vary by event type (e.g., individual vs. team)?

a) The donut chart highlights the dominance of **individual events**, with **ATH (Athletics)** leading at **494 medals**. **HATH (Hybrid)** follows with **286 medals**, representing a mix of individual and team dynamics. Team and hybrid formats contribute **247 medals**, including **TEAM events** (147) and **HTEAM** (100), while **COUP (Couples)** accounts for only **16 medals**, showing its niche role. Overall, the chart underscores the prominence of individual events, with team and couple-based formats playing smaller but notable roles.



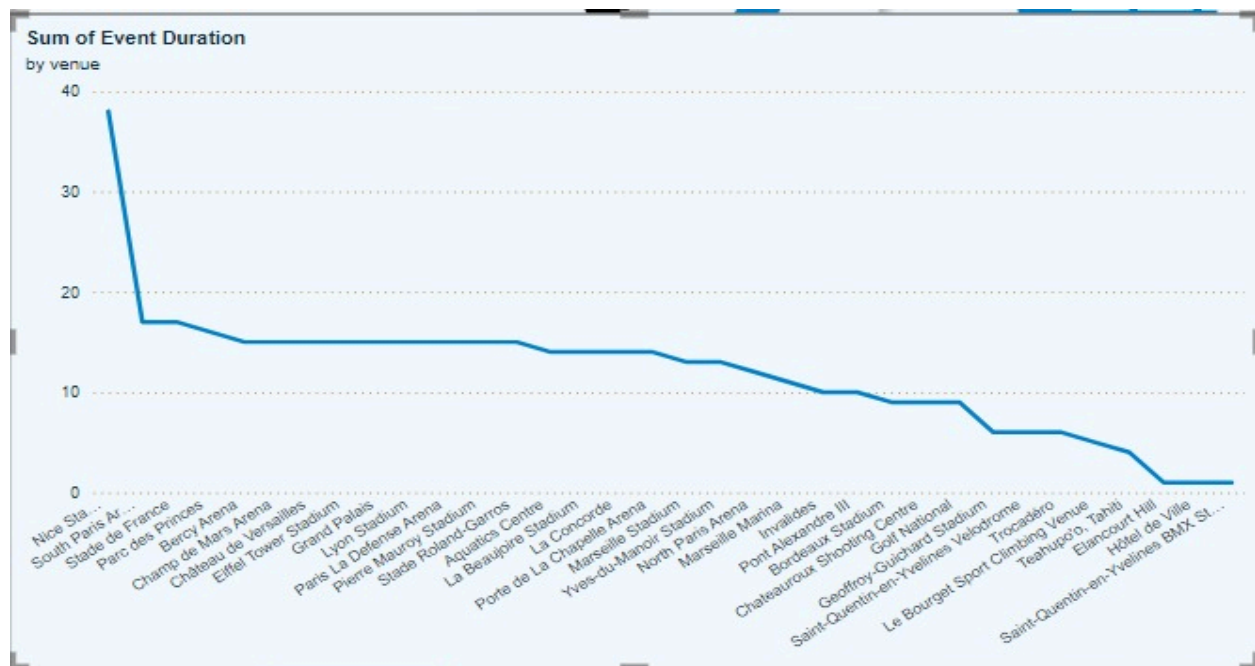
5) Which disciplines have the highest repeat medalists?

a)The bar chart highlights the distribution of repeat medalists across disciplines, with **Athletics** leading at **145** and **Swimming** following with **105**, showcasing their dominance in producing consistent performers. Other notable disciplines include **Wrestling (72)**, **Judo (60)**, and **Boxing (52)**. Sports like **Artistic Gymnastics**, **Shooting**, and **Cycling Track** also contribute moderately, while niche disciplines such as **Fencing** and **Table Tennis** have fewer repeat medalists. Overall, Athletics and Swimming stand out as the leading sports for sustained athlete success.



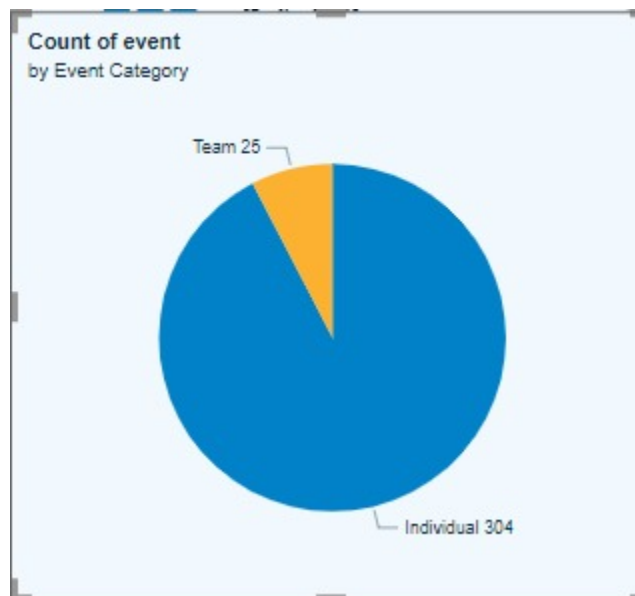
6)How long do events last at each venue?

a)The line chart shows the **sum of event durations** across venues, with **Nice Palais** hosting the longest events at approximately **40 units of time**. Venues like **South Paris**, **Châteauroux**, and **Paris-Princes** follow with moderate durations ranging between **15–20 units**. Event durations gradually decline across other venues, with locations like **Le Bourget** and **Saint-Quentin Velodrome** hosting the shortest events. This highlights significant variation in event lengths, with a few venues accommodating longer competitions while others host shorter or fewer events.



7)How do team events compare to individual events across sports?

a)The pie chart compares the count of **team events** to **individual events** across sports. **Individual events** dominate with **304 events**, highlighting their overwhelming prevalence in the overall competition structure. In contrast, **team events** account for only **25 events**, representing a small portion of the total. This significant disparity emphasizes the focus on individual performances across sports, with team-based competitions playing a much smaller role.



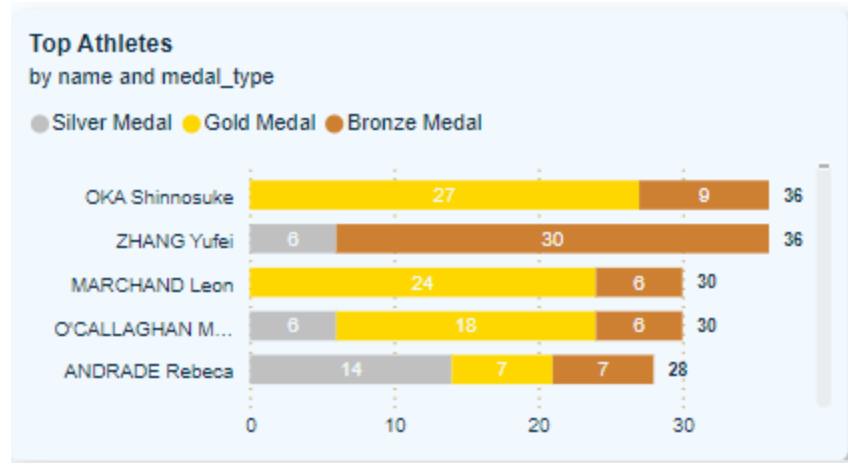
SUGGESTED RESEARCH QUESTIONS FOR MEDALS:

1. How do male and female athletes perform across different disciplines? ->Clustered Column Chart
2. How do medal counts vary by event type (e.g., individual vs. team)? -> use event type and donut chart **DONE**
3. Which disciplines have the highest repeat medalists? ->clustered column chart **DONE**
4. What is the share of medals for team events versus individual events? ->pie chart
5. Which countries have the most Repeat Medalists? ->Stacked Column Chart
6. Is there a correlation between Repeat Medalists and specific disciplines? ->scatter plot
7. Which events produce the most Repeat Medalists? ->column chart
8. What is the geographic distribution of medal-winning countries? ->map visual
9. What is the age range of athletes who win medals across disciplines? ->box plot
10. How do team events compare to individual events across sports? **DONE**
11. How long do events last at each venue? **DONE**

ATHLETES X MEDALISTS RESEARCH QUESTIONS

(need 4, 1 done ,choose 3 questions varying in visualization type, make sure to use the age column at least once if not twice, and make sure the questions does not contradict with the standalone dataset questions above)

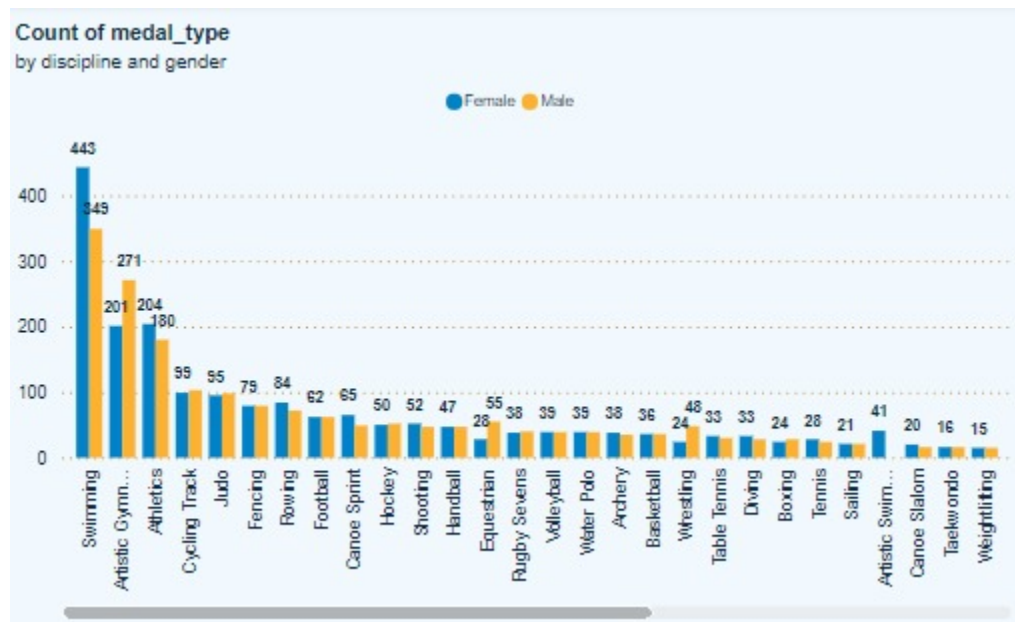
- 1) Which athletes won medals at the youngest and oldest ages?->bar
 - 2) How does the age at which athletes win medals vary across disciplines?->column
 - 3) How do male and female athletes perform across different disciplines? ->column chart **DONE**
 - 4) Which countries have the youngest and oldest medal-winning athletes? ->map visual
 - 5) What is the average age of medal-winning athletes by disciplines ? ->line chart **DONE**
-
- 1) Who are the top-performing athletes, and what is their medal distribution by type? And How do the distributions of Gold, Silver, and Bronze medals vary across athletes?
 - a) The Top Athletes bar chart answers the research question by showcasing the medal distribution for leading athletes. It highlights that athletes like OKA Shinnosuke and ZHANG Yufei lead in total medals, with Gold medals dominating their achievements. The chart also reveals a balanced distribution of Silver and Bronze medals for other athletes, providing a clear comparison of their performance across different medal types.



2)How do male and female athletes perform across different disciplines?

a)The bar chart compares **male** and **female athlete performances** across disciplines by medal count. **Swimming** leads for both genders, with **443 medals** for females and **349 medals** for males, showcasing its prominence. **Artistic Gymnastics** is nearly balanced with **201 medals** for females and **204 for males**, while **Athletics** shows a male lead with **271 medals** compared to **180 for females**.

Other disciplines like **Cycling**, **Judo**, and **Fencing** have relatively even distributions, though males often hold a slight edge. Smaller disciplines, such as **Shooting** and **Weightlifting**, show balanced but lower counts. Overall, males have a slight advantage across most disciplines, but **Swimming** and **Artistic Gymnastics** highlight strong performances by both genders.



3)What is the average age of medal-winning athletes by disciplines ?

a)The line chart shows the **average age** of medal-winning athletes by discipline. **Equestrian** has the highest average age, around **40 years**, followed by **3x3 Basketball**, **Volleyball**, and **Handball**, where athletes average **30+ years**. In contrast, sports like **Rhythmic Gymnastics**, **Diving**, and **Skateboarding** have the youngest medalists, with averages close to **20 years**.

Overall, disciplines requiring experience, like **Equestrian**, tend to have older athletes, while physically demanding sports, such as **Gymnastics** and **Skateboarding**, favor younger competitors.

