**Executive Summary**

This project will provide an analysis on which countries produce the most successful figure skating athletes who are past the age of puberty. With recent changes to the minimum age requirement being raised to 17 for figure skaters to compete in the largest international competition in the world, understanding which countries are effectively training and supporting these new-age targeted athletes would be insightful to know. The goal of the Olympic games is to cultivate human beings, through sport, and contribute to world peace. Shouldn’t we look to support athletes that embody this goal instead of abusing our influence on young athletes to strive for excellence. Success will be determined based on the titles won, number of medals won, and the average age of retirement.

**Motivation**

My motivation for wanting to explore this topic is my background in competitive figure skating from the age of 5 to 15. At the age of 12 I had patella tendinitis in both of my knees and severe lower back pain that would eventually develop into some sort of arthritis before the age of 30. My Orthopedic sports medicine doctor gave me two options: 1) Get knee surgery that had a 60% chance of being effective and try to rehab/manage the pain in my back or 2) Quit training.

Throughout the past few decades, there seems to be a peak age for the highest performing female skaters seen at a very young age (for reference, Tara Lipinski won the Olympic Gold Medal in 1998 at 15 years old and retired that same year). “What age is too young for (figure skaters) athletes to be competing in the Olympics?” has always been an intriguing question to me understanding personally the physical, mental, and emotional toll this sport can take on an athlete. In light of the latest [controversary from the 2022 Winter Olympics](https://www.euronews.com/2022/06/08/minimum-age-for-figure-skating-rises-to-17-following-olympic-controversy%23:~:text=Minimum%20age%20for%20figure%20skating%20rises%20to%2017%2C%20following%20Olympic%20controversy,-Comments&text=Ice%20skaters%20will%20have%20to,the%20minimum%20age%20from%2015.) which has resulted in (or at least helped speed up the decision) the rise of the minimum age requirement being 17 years old to compete in the Olympics, I felt that it would be useful to know which countries produced the most successful figure skaters who are past the age of puberty so that their practices and programs could be modeled after for the majority.

**Data Question**

Which countries have the most successful and effective figure skating training programs that benefit the overall (physical, mental, emotional) health of an athlete and thus increase the longevity of competing in the sport? Which countries produce the most successful figure skaters who are past the age of puberty?

**Minimum Viable Product (MVP)**

I want to identify the trend in the average successful age of an athlete year after year (using a line graph visual), provide an aggregation of data looking at the average (mean, min, max, median) age of successful athletes by country (using a bar chart and/or table visual), and provide a summary/conclusion of which countries produce the most successful athletes who are past the age of 17 and whose programs should be the golden standard.

**Schedule (through 8/19)**

1. Get the Data (7/28)
2. Clean & Explore the Data (8/1)
3. Create Presentation of your Analysis (8/11)

* Should be a presentation, but could include a Jupyter Notebook or dashboard in Excel, Tableau, or PowerBI

1. Internal demos (8/12)
2. Demo Day!! (8/19)

**Data Sources**

* [*List of Olympic medalists in figure skating*](https://en.wikipedia.org/wiki/List_of_Olympic_medalists_in_figure_skating#:~:text=Figure%20skating%20has%20been%20part,29%20representing%20National%20Olympic%20Committees.)
* [*List of Olympic medalists in figure skating by age*](https://en.wikipedia.org/wiki/List_of_Olympic_medalists_in_figure_skating_by_age)
* [*World Figure Skating Championships*](https://en.wikipedia.org/wiki/World_Figure_Skating_Championships)
* [*Major achievements in figure skating by nation*](https://en.wikipedia.org/wiki/Major_achievements_in_figure_skating_by_nation)

**Known Issues and Challenges**

Finding good data to use has been challenging. [Wikipedia](https://en.wikipedia.org/wiki/List_of_Olympic_medalists_in_figure_skating#:~:text=There%20have%20been%20286%20medals,discontinued%20after%20a%20single%20Olympics.) has some tables, data, and several sources to reference listed above. I attempted to request an API key from a few sites that wanted me to pay for the data so hopefully Wikipedia is an acceptable data source for our capstones.

A meaningful conclusion may be difficult to summarize because I’m assuming that the latest data shows the most successful athletes being under the age of 17; the countries with data to support successful athletes over 17 may be from several years prior back to the early 1900s.