Link to Tableau UFC Fight Dataset Overview **https://public.tableau.com/app/profile/wilfredo.viruet.jr/viz/UFCFightDatasetOverview/Story1**

**Part 1: Tableau Storyboard**

**Define the Story:**

* **Who:** UFC stakeholders, fighters, coaches, and enthusiasts.
* **What:** Analysis of UFC fight data to uncover trends and actionable insights.
* **When:** Data spans from 1993 to 2021.
* **Where:** Global, covering all locations where UFC events were held.
* **Why:** To identify factors influencing fight outcomes, trends in fighter performance, and key patterns in UFC events.

**Storyboard Structure:**

**1. Introduction to the Data**

* **Source:** The data comes from [Kaggle](https://www.kaggle.com/datasets/rajeevw/ufcdata), (<https://www.kaggle.com/datasets/rajeevw/ufcdata>) a trusted site for open datasets.
* **Time Span:** It includes fight data from 1993 to 2021, covering almost 30 years of UFC fights.
* **Key Variables:**
  + **Fighter Information:** Details like fighter names, ages, heights, weights, and reach.
  + **Fight Details:** Includes fight dates, event locations, outcomes (win, loss, or draw), and methods of victory (like knockout, submission, or decision).
  + **Performance Metrics:** Tracks statistics such as significant strikes landed, takedowns, and control time.

**Brief Description of UFC and Its Significance:**

* **UFC (Ultimate Fighting Championship):** Founded in 1993, the UFC is the top organization in mixed martial arts (MMA) and has helped grow the sport worldwide.
* **Significance:** Analyzing UFC data helps understand fight results, improve fighter training, and engage fans. It can offer insights that impact how fighters prepare and compete.

**Explanation of Why This Data Was Chosen for Analysis:**

* **Personal Interest:** The dataset was chosen because of a personal interest in the UFC and the chance to apply data analysis to a sport I enjoy.
* **Professional Analysis:** The data is useful for exploring fight statistics and trends, combining personal interest with professional analysis skills.
* **Diverse Analytical Opportunities:** The data provides many variables to analyze, making it ideal for various types of analysis, from exploring basic patterns to advanced statistical methods.

**Exploratory Data Analysis (EDA)**

**Findings:**

* **Fight Trends:** The analysis revealed how the number of UFC fights has varied over the years.
* **Fighter Statistics:** Insights were gathered on fighters' details such as age, height, and weight.
* **Fight Results:** The results of fights were examined to understand the frequency of different outcomes (wins, losses, draws) and the methods used.
* **Event Locations:** The locations of the fights were mapped to identify any geographic patterns.

**Questions Explored:**

* Who holds the highest win rate in UFC history, and what factors lead to their success?
* How does the rate of knockouts differ among UFC weight classes, and are there noticeable trends or patterns?

**Hypothesis:**  
Fighters who are taller and have longer arm reaches are more likely to win their matches.

**Next Steps:**

Analyze Performance Metrics:

* Action: Look deeper into fight statistics like strikes, takedowns, and control time to see how they relate to winning fights.
* Purpose: To find out which stats are most important for winning and if height and reach really matter.

Compare Weight Classes:

* Action: Break down the data by weight classes to compare knockout rates and other stats across different classes.
* Purpose: To see if trends vary between weight classes or if there are specific patterns in each class.

**Limitations:**

Changes Over Time:

* Issue: UFC rules and fight styles have evolved since 1993, which could affect the consistency of the data.
* Impact: Comparing data across different years may be challenging due to these changes.

External Factors:

* Issue: Factors like fighter injuries, changes in training methods, or promotional activities might not be captured in the dataset.
* Impact: These external factors could influence fight outcomes and trends, potentially leading to incomplete or skewed insights.
* **Red Corner Fighters**: Height (R\_Height\_cms) has a slight correlation (0.17) with win rates (R\_Win).
* **Red Corner Fighters**: Reach (R\_Reach\_cms) shows a slight correlation (0.16) with win rates.
* **Blue Corner Fighters**: Height (B\_Height\_cms) has a very weak correlation (0.077) with win rates (B\_Win).
* **Blue Corner Fighters**: Reach (B\_Reach\_cms) has a slight correlation (0.12) with win rates.

**Top of Form**

**Bottom of Form**