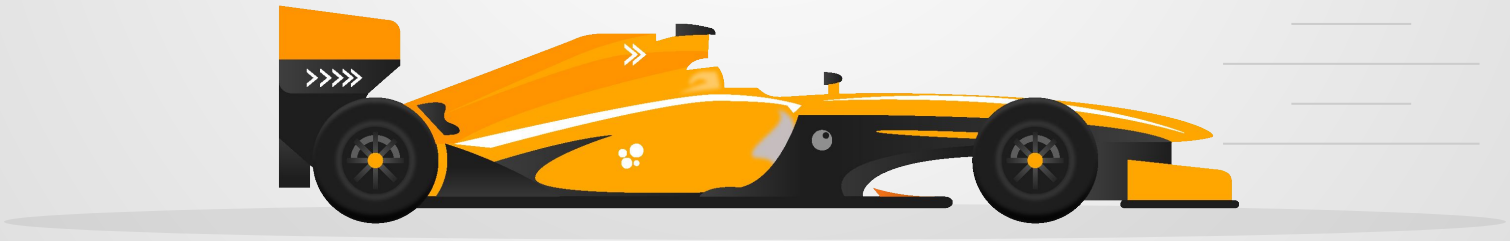
Formula 1 Data Visualizer

This application offers an engaging and insightful journey into the thrilling world of Formula 1 racing.

Tailored for both casual fans and dedicated enthusiasts, this innovative tool leverages cutting-edge data visualization to vividly present the captivating statistics and compelling stories of Formula 1.

INTRODUCTION

This project aims to tell a compelling story through data visualizations. By leveraging various libraries and tools, we have created interactive and insightful visualizations that allow users to explore and understand the dataset in depth.



Project Purpose

The goal of this project is to demonstrate the transformative power of data visualization, presenting complex information in a captivating and easily understandable manner with a fun and trending topic such as Formula 1. Our aim is to offer users an immersive, interactive experience, enabling them to:

1. Explore the vast data that Formula 1 collects over the years.
2. Uncover hidden patterns.
3. Derive valuable insights from their favorite drivers or teams.

WHAT OUR APP OFFERS...

1. **Global Map of Drivers:** Embark on a journey across the globe with our interactive map, showcasing the diverse origins of F1 drivers and highlighting their victories.

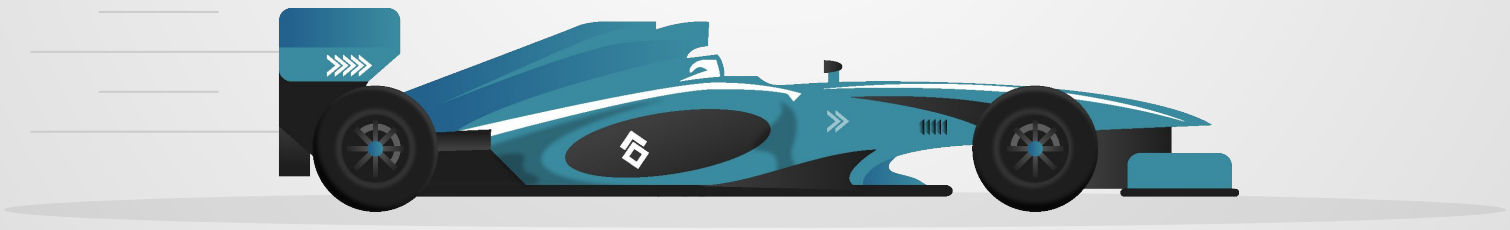
2. **Total Wins by Driver:** Dive into a dynamic visualization of each Formula 1 driver's triumphs.

3. **Total Wins by Team:** Discover the historical dominance of F1 teams with an engaging display of their race victories over the years.

4. **Top N Pilots by Total Victories:** Customize your view to spotlight the top pilots, ranked by their total victories, and celebrate the legends of the track.

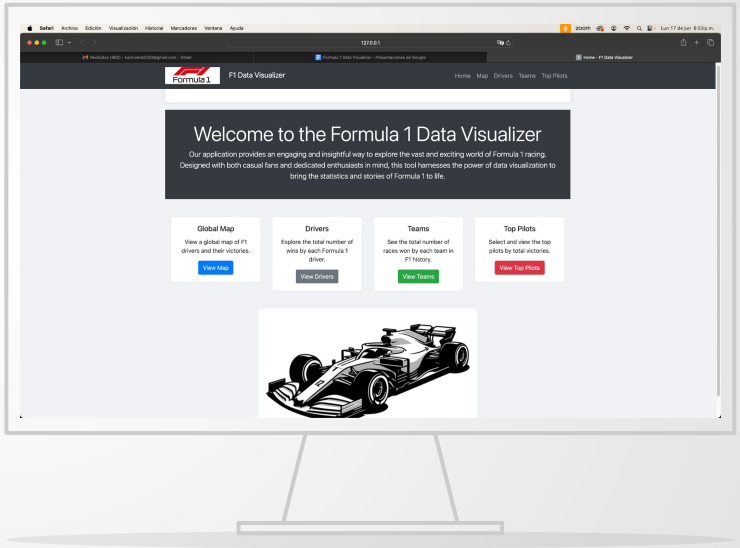
01 OUR APP

http://127.0.0.1:5000/



Interacting with the Application

- Global Map of Drivers: Navigate to the 'Map' section to explore the global distribution of drivers. Click on any pin to see detailed information about drivers from that country and their total wins.
- Total Wins by Driver: Navigate to the 'Drivers' section to view a bar chart showing the total wins by each driver.
- Total Wins by Team: Navigate to the 'Teams' section to view a bar chart of the total races won by each team.
- Top N Pilots by Total Victories: Navigate to the 'Top Pilots' section to select the number of top pilots you want to see and view a ranked list of drivers by their total victories.



Ethical Considerations

In developing the Formula 1 Data Visualizer, several efforts were made to address ethical considerations:

Data Accuracy and Integrity:

Ensuring the accuracy and integrity of the data presented is crucial. Misrepresenting statistics can lead to misinformation and potentially damage the reputations of drivers and teams. We commit to using reliable data sources and continuously verifying the accuracy of the information presented in our application.

Privacy and Consent:

Respecting the privacy of individuals whose data is being visualized is paramount. Although the data used is typically publicly available, it is essential to handle it responsibly. We only use publicly available data and ensure that our visualizations respect the privacy of the individuals involved.

Bias and Fair Representation

Data visualizations should strive to be unbiased and represent the data fairly. It is easy to inadvertently introduce bias through the choice of metrics or presentation style. We aim for neutrality and objectivity in our visualizations, providing a balanced view of the data without favoritism or prejudice.

Impact on Stakeholders:

Understanding how the visualized data might impact stakeholders, including drivers, teams, fans, and sponsors, is essential. We design our visualizations to celebrate achievements and provide constructive insights, fostering a positive and respectful discourse around Formula 1.

Data Sources

- The data used in this project is sourced from publicly available Formula 1 race results databases and repositories.

Code References

- The visualizations were created using the Plotly library.
- The interactive map was implemented using Folium.
- The web framework used for this project is Flask.
- Parts of the code were generated with the assistance of ChatGPT, an AI language model developed by OpenAI.

THANKS