**The Maven Analytics Tour de France Project description**.

***The project involved the following steps:***

1. **Data Source Connection**: Established a connection to the data files in Microsoft Power BI.
2. **Exploratory Data Analysis**: Applied Exploratory Data Analysis techniques in the Query Editor to gain insights into the data structure, patterns and distributions.
3. **Data Cleaning and Preparation**: Conducted a thorough data cleaning process using Power Query Editor to refine and prepare the data, ensuring its high quality and consistency for analysis. Separate columns were created for kilometer (km) and mile measurements, and the starting/finishing dates and cities were split into individual columns. This ensures that the data is readily available for analysis or exploration of the temporal and geographical aspects of the dataset.
4. **Data Modeling**: Created a Data Model by establishing relationships between tables, enabling efficient data navigation and integration across dimensions.
5. **Calculated Columns and DAX Measures**: Utilized calculated columns and Data Analysis Expressions (DAX) measures to generate new data insights and enhance analysis capabilities using the existing dataset.
6. **Dashboard Development**: Developed a comprehensive dashboard with suitable visualizations for each data type, ensuring clear representation and easy interpretation of insights.

These steps ensured a thorough analysis of distances, speed, and other aspects of the Tour de France dataset, providing a valuable overview for further exploration and analysis.

***Key findings from the data analysis are as follows:***

1. **Historical Perspective**: The Tour de France has been taking place since 1903, making the current year its 110th edition. The race was not held during the First and Second World Wars.
2. **Last Year's Winner**: Jonas Vingegaard from Denmark emerged as the winner in the previous edition. He achieved an average speed of 41.8 km/h and completed the race in 79 hours, 32 minutes, and 29 seconds.
3. **Average Distance**: Over the course of the Tour de France's history, the average distance covered is approximately 4,188 km (2,602 miles). However, in recent years, the average distance has been around 3,500 km (2,200 miles).
4. **Stage Distribution**: The race consists of 21 stages, with flat stages representing the majority at over 50%, mountain stages accounting for around 30%, individual time trials contributing to a significant portion, and various other stages such as hilly stages, team time trials and more making up the remaining composition.
5. **Increasing Average Speed**: The average speed of the participants has witnessed an upward trend over the years. It has risen from 25.7 km/h to 41.8 km/h, with the overall average being 34.55 km/h from 1903 to 2022.
6. **Participation Statistics**: Based on data since 1903, the Tour de France participation statistics show an average of 144 starters in the race, with around 90 participants completing the event. The average completion rate is 63%.
7. **Global Representation**: The Tour de France draws participants from various nations, with 15 countries having secured at least one victory in the race's history. Among these countries, France stands out with the highest number of wins, totaling 36 victories.

These findings provide insights into the historical context, performance metrics, and global representation of the Tour de France.