Cab drivers

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| **User story 1**:  As a cab driver,  I want to be able to assess my performance compared to other cab drivers so that I can gauge my standing within the industry.  **Confirmation**:   1. Develop a bar graph displaying each driver's rating, distinguishing between those below and above average. 2. Implement a bar graph illustrating each driver's percentage of dangerous trips, distinguishing between those below and above average. 3. Create a bar graph showcasing each driver's average net acceleration, distinguishing between extreme and normal acceleration. 4. Integrate a filter for cab drivers to easily compare themselves with their peers. 5. Design a calculated field highlighting an individual cab driver's position in Driver Rating and Proportion of Dangerous Trips compared to others. 6. Enable the cab driver to view specific booking IDs associated with extreme acceleration by clicking on the highlighted bar. |

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| **User Story 2**:  As a cab driver,  I want to be able to make well-informed decisions about choosing a car brand from the cab company's fleet, so that I can minimize dangerous trips and ensure a smooth driving experience for my customers.  **Confirmation**:   1. Develop a bar graph displaying the count of dangerous trips per car brand in descending order. 2. Provide an average driver rating for each car brand. 3. Create a pie chart depicting the distribution of booking IDs among different car brands. 4. Display the average speed for each car brand in descending order. 5. Present the average net acceleration for each car brand in descending order. |

Managers

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| **User story 1**:  As a manager,  I want to be able to utilize an intuitive application with a user-friendly interface for visualizing, analyzing, and comparing cab-driving data, including telematics data on trip safety, so that I can make well-informed decisions.  **Confirmation**:   1. Develop a bar graph displaying each driver’s rating. 2. Create a bar graph illustrating each driver’s percentage of dangerous trips. 3. Design a pie chart representing the proportion of genders among all drivers. 4. Implement a histogram showcasing the distribution of all drivers' ages. 5. Construct a histogram displaying the distribution of the number of years of driving experience for all drivers. 6. Incorporate a filter allowing the manager to select and compare drivers. |

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| **User story 2**:  As a manager,  I want to be able to comprehend the intricacies and root causes behind dangerous trips so that I can make well-informed decisions for the overall safety and operational efficiency.  **Confirmation**:   1. Generate a line graph depicting the overall trend in drivers' percentage of dangerous trips. 2. Develop a pie chart illustrating the proportion of trips that are deemed dangerous. 3. Create a scatterplot between two sensor variables, segregating the data into dangerous and non-dangerous trips to identify potential causes. 4. Establish a calculated field for the frequency of dangerous turns. 5. Construct two boxplots (one for dangerous and the other for non-dangerous) to highlight the difference in the number of dangerous turns. |

Admins

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| **User Story 1**:  As an administrator,  I want to be able to create SQL queries for accessing and processing data so that I can ensure the database functions as intended.  **Confirmation**:   1. Formulate an SQL query to display each driver with their respective traits and statistics, including average net acceleration, overall rating, number of dangerous trips, etc. 2. Construct an SQL query to showcase the car brand of each manufacturer, accompanied by overall statistics such as average car age, number of trips, average net acceleration, and speed, etc. |

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| **User story 2**:  As an administrator,  I want to be able to generate an SQL query to calculate and present details on the deviation of gyroscope readings for drivers with anomalous gyroscopes, so that we can monitor, analyze, and assess the performance and reliability of the gyroscopes in the cabs, while identifying potential causes.  **Confirmation**:   1. Develop an SQL query to reveal the average deviation of gyroscope readings for drivers with anomalous gyroscopes. 2. Design the SQL query to display the highest deviation of gyroscope readings that occurred for drivers with anomalous gyroscopes. 3. Ensure the SQL query also indicates whether the anomalous gyroscope is likely due to a faulty gyroscope or extreme driving behavior. |