Project Title: Road Accident Analysis using Power BI

Objective:

To analyze road accident data based on various conditions such as day of the week, weather, road surface, and accident severity, and derive insights to improve road safety using Power BI visualizations and KPIs.

Dataset Fields Used:

* Day_of_Week
* Accident_Severity
* Weather_Conditions
* Road_Surface_Conditions
* Junction_Control
* Accident_Index

KPI Cards:

* Total Accidents: Count of all accident records.
* Day with Highest Accidents: Computed as the day having the maximum grouped count of accidents.
* Most Common Weather Condition: Mode of Weather_Conditions field.

Visuals and Their Titles:

1. Count of Accident_Severity by Day_of_Week and Accident_Severity
   - Stacked column chart
2. Count of Accident_Severity by Weather_Conditions
   - Pie chart
3. Count of Accident_Index by Day_of_Week and Accident_Severity
   - Line chart
4. Count of Accident_Index by Junction_Control and Accident_Severity
   - Clustered bar chart
5. Count of Accident_Index by Weather_Conditions and Accident_Severity
   - Clustered bar chart
6. Count of Accident_Index by Road_Surface_Conditions and Accident_Severity
   - Clustered bar chart
7. Table: Weather Condition-wise Count per Day

Insights Extracted:

* Friday had the highest number of accidents.
* Most accidents occurred in 'Fine no high winds' weather.
* Slight accidents are significantly more frequent.
* Poor road and complex junction controls increase accident severity.

Conclusion:

The Power BI dashboard highlights key accident patterns, aiding authorities in road safety planning.

Icons and Visuals:

Custom accident-related icons were used to enhance the dashboard’s clarity.

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