Road Accident Data Analysis

Project Description:

Analysing The Road Accident Data Using Microsoft Excel for Data Collection, Microsoft SQL Server for Data Management and Microsoft Power BI For Data Visualization to Find Trends, Patterns and Insights for Better Decision-Making.

Problem Statements:

Primary KPI's:

- Total Number of Accidents.
- Total Number of Casualties Occurred After Accident.
- Total Number of Vehicles.
- Accidents Distribution by Vehicle Type, Road Type, Road Surface.
- Casualties Distribution by Vehicle Type, Road Type, Road Surface.
- Year wise Monthly Trends
- Region Wise Trends
- Peak Accident Hour
- Weekly Trends
- Casualties Distribution by Accident Severity.
- Distribution By Junction Control and Junction Detail.
- Min And Max Speed Limit.
- Correlation of Weather Conditions with Accidents.

Location Wise Analysis:

- Area Wise Total Accidents and Total Casualties.
- Area Wise accident Severity.
- Area Wise Accidents and Casualties Monthly Trends.
- Area Wise Speed Limit, Accidents and Casualties.
- Area Wise Location Distribution.
- Top 5 Districts By accidents and Casualties.

Junction Wise Analysis:

- Junction Wise Accident Severity.
- Junction Wise Total Accidents and Total casualties.
- Junction Wise Monthly Trends.
- Junction Wise Speed Distribution.
- Junction Wise Location Distribution.
- Top 5 Districts by Junction Wise Distribution.
- Junction Wise Grid Details.

Conditions Wise Analysis:

- Total Accidents and Casualties by Light Conditions.
- Accident Severity Distribution by Light Conditions.
- Speed Distribution Based on Light Conditions.
- Total Accidents and Casualties by Weather Conditions.
- Total Accidents and Casualties by Road Surface Conditions.
- Monthly Trends.
- Conditions Wise Grid Details.