Road Accident Analysis using Power BI

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Data Collection

Collect data on road accidents, including location, casualties, vehicles, and other relevant information.

Data Preparation

Process and clean the data in preparation for analysis.

Model Creation

Report & Visualization Creation

Create visualizations and reports that provide insights into the data collected.

Community

Insurance Companies

Government

Media

Transport Operator

Provide data to help transport operators optimize routes and improve safety for their drivers and passengers.

Dashboard

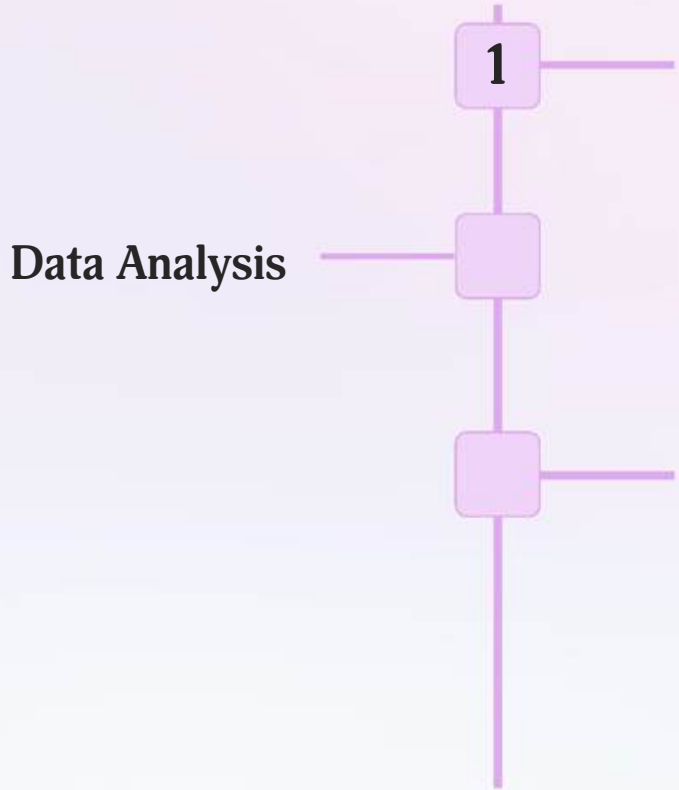
KPI Visibility

Total Causalities, Total Accident, YoY growth, Casualties with respect to vehicle,

Trends

Monthly trend of Casualties, YoY change, Trend in Location

Power BI Functionalities



Data Modeling

Create relationships between tables, add calculated columns and measures, and create hierarchies.

Data Visualization

Create interactive and visually appealing visualizations, including charts, tables, and maps.

Road Accident Analysis
Road Surface
All
Weather Conditions
All
Total CY Casualties
195.7K
-11.89%
Total CY Accidents
144.4K
-11.70%
CY Fatal Casualties
2.9K
-33.29%
CY Serious Casualties
27K
-16.18%
CY Slight Casualties
166K
-10.65%
Casualties by Vehicle Type
Agricultural
399
Bike
15610
Bus
11612
Car
155804
Other
1446
Van
10866
CY Casualties Vs PY Casualties
Year 2021 2022
20K
10K
2021
2022
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
CY Casualties by Area
Rural
74K (38%)
Urban
121K (62%)
Casualties by Location
CY Casualties by Road_Type
Single carriageway
145K
Dual carriageway
32K
Roundabout
13K
One way street
3K
Slip road
3K
0K
50K
100K
150K
200K
CY Casualties by Light Conditions
Dark
51K (26%)
Daylight
145K (74%)

1 Insights

- YOY Decline on Casualties.
- More casualties done by the Car
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2 Engagement

Stakeholder Can take right action with the help of this dashboard

3 Actionable Steps

- They can introduce traffic policies
- Work on the rule and regulation of high impacted areas