IDEMIA INDIA FOUNDATION
&
LOK BHARTI EDUCATION SOCIETY

Power BI
Project Report

UK Road Accident Analysis

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ACKNOWLEDGEMENT

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Furthermore, I want to acknowledge that this project was completed solely by me, and no external assistance was involved in its execution.

SIGNATURE OF PROJECT GUIDE

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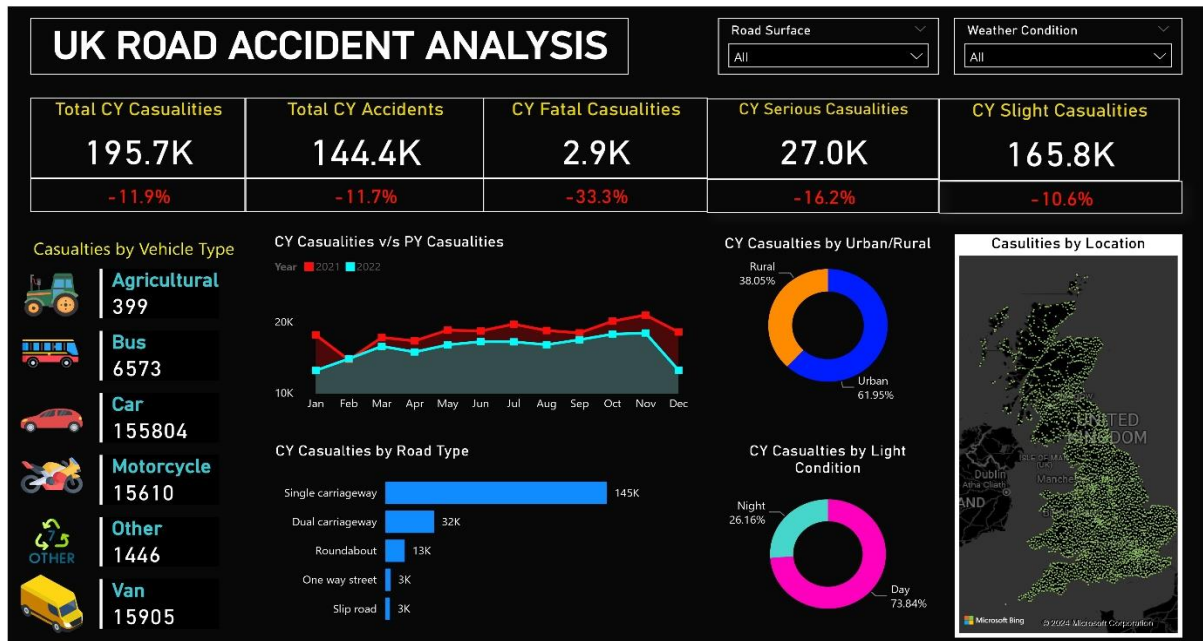| S.No.	Content	Page No.
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Aim

The aim of this analysis is to investigate and understand the factors contributing to road accidents on single carriageway roads, with the objective of identifying opportunities to improve road safety and reduce the incidence of accidents in these environments.

Requirement Gathering

Client wants to create a Road Accident Dashboard for year 2021 and 2022 so that they can have insight on the below requirement-

- ❖ **Primary KPI:** Total Casualties and Total Accident values for current Year and YoY growth

- ❖ **Primary KPI's:** Total Casualties by Accident Severity for current Year and YoY growth

- ❖ **Secondary KPI's:** Total Casualties with respect to vehicle type for Current Year

- ❖ Casualties by Road Type for Current year

- ❖ Current Year Casualties by Area/Location & by Day/Night

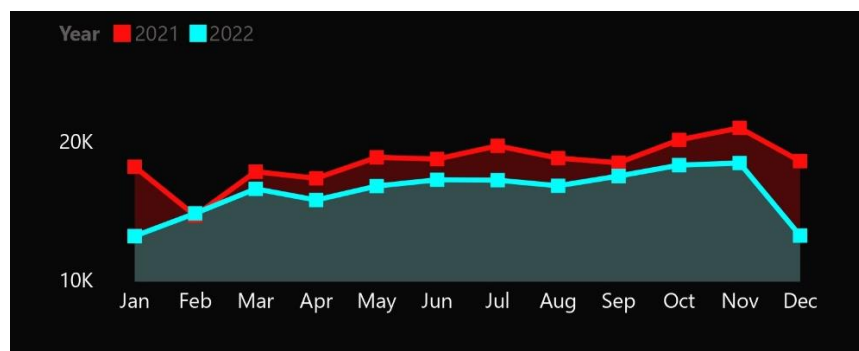- ❖ Total Casualties and Total Accidents by Location

Dashboard

UK ROAD ACCIDENT ANALYSIS

Road Surface	Weather Condition
All	All

Total CY Casualties	Total CY Accidents	CY Fatal Casualties	CY Serious Casualties	CY Slight Casualties
195.7K	144.4K	2.9K	27.0K	165.8K
-11.9%	-11.7%	-33.3%	-16.2%	-10.6%

Casualties by Vehicle Type
- Agricultural 399
- Bus 6573
- Car 155804
- Motorcycle 15610
- Other 1446
- Van 15905

CY Casualties by Road Type
- Single carriageway 145K
- Dual carriageway 32K
- Roundabout 13K
- One way street 3K
- Slip road 3K

CY Casualties by Urban/Rural: Rural 38.05%, Urban 61.95%

CY Casualties by Light Condition: Night 26.16%, Day 73.84%
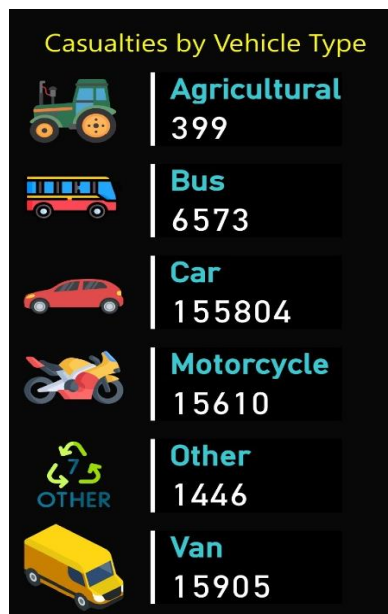
Observations

CY Casualties v/s PY Casualties

In the analysis of road accidents for the current year 2022 compared to the previous year 2021, it has been observed that the number of accidents has decreased. This decline in accidents signifies a positive trend towards enhanced road safety measures and awareness campaigns.
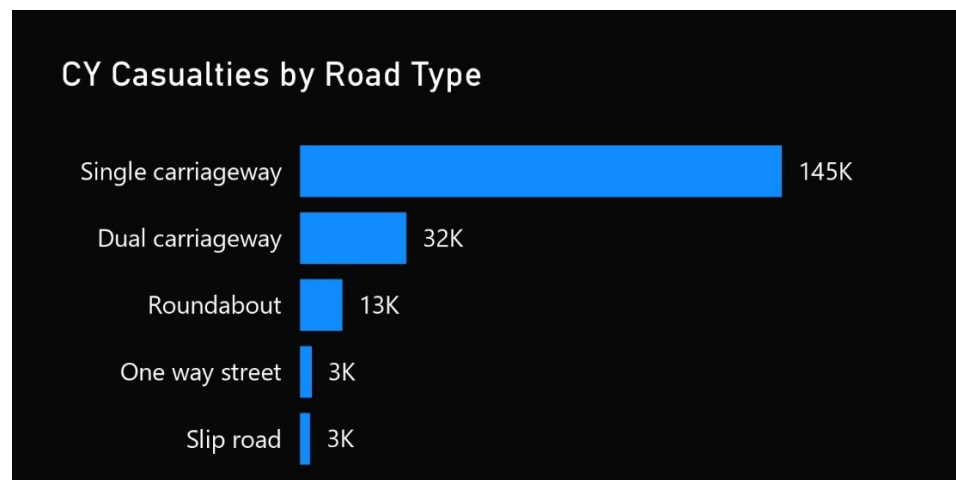
Casualties by Vehicle Type

Cars and motorcycles consistently emerge as the most commonly involved vehicle types in road accidents. This observation suggests that these vehicles play a significant role in traffic incidents, possibly due to their prevalence on the roads and varying degrees of vulnerability to accidents.

Casualties by Vehicle Type

Vehicle Type	Count
Agricultural	399
Bus	6573
Car	155804
Motorcycle	15610
Other	1446
Van	15905

Casualties by Road Type

Single carriageway roads consistently exhibit a higher incidence of accidents compared to dual carriageways or motorways. This observation suggests that the characteristics and inherent features of single carriageway roads contribute to increased accident risk.

CY Casualties by Road Type

Road Type	Casualties
Single carriageway	145K
Dual carriageway	32K
Roundabout	13K
One way street	3K
Slip road	3K

Recommendations

Based on the analysis, the following recommendations are proposed to mitigate road accidents and enhance road safety:

1. Implement targeted awareness campaigns addressing prevalent causes of accidents, such as speeding and drink-driving.
2. Enhance infrastructure and road maintenance in high-accident areas to reduce the likelihood of accidents.
3. Strengthen enforcement measures, including stricter penalties for traffic violations and irresponsible driving behaviour.
4. Introduce educational programs targeting demographic groups identified as high-risk for road accidents.
5. Promote the adoption of advanced safety technologies in vehicles to mitigate the impact of accidents.

Conclusion

The Power BI dashboard provides a comprehensive overview of road accidents in the UK, offering valuable insights into their causes, trends, and implications. By leveraging this analysis, stakeholders can develop targeted interventions and policies to enhance road safety and reduce the incidence of accidents, ultimately saving lives and preserving public well-being.