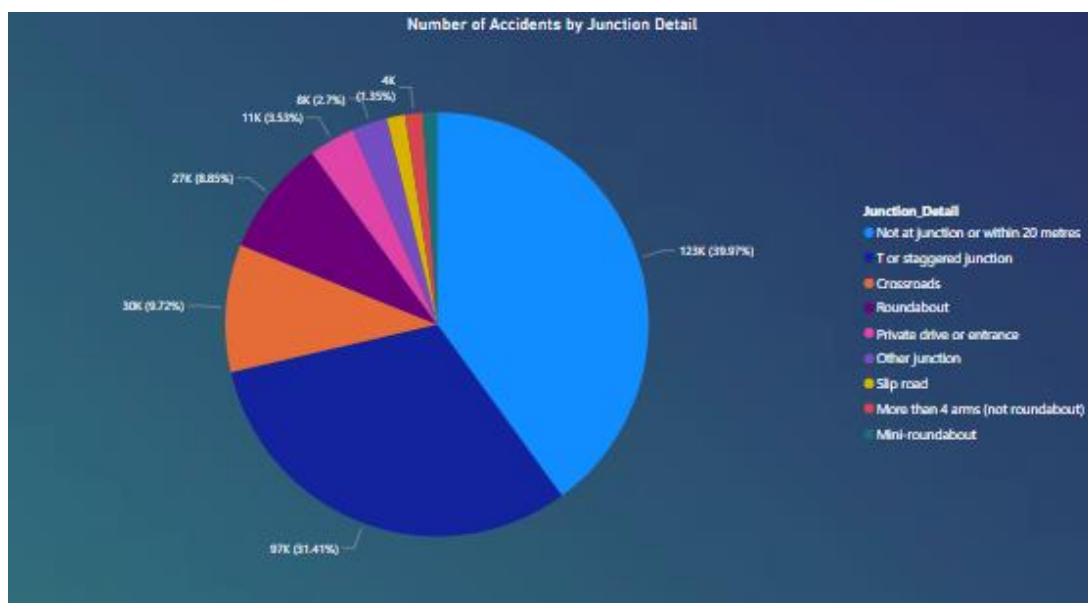


ROAD ACCIDENT DATA ANALYSIS – A POWERBI DASHBOARD

1. **Data Preparation/cleaning** - Dataset was downloaded and imported into PowerBI. This step involved finding missing values and inconsistencies and understanding the columns and determining what could be used for analysis.
 - **Missing data** in column Time (17 rows), but Time column is inconsistent as there is a conflict with values in Accident Date and can be removed.
 - **Missing data** in columns Junction_Detail and Carriageway_Hazards (3 rows) and filtered out.
 - Accident_Severity column had a **spelling mistake** in value “Fetal” and replaced with correct value “Fatal”.

2. Key findings

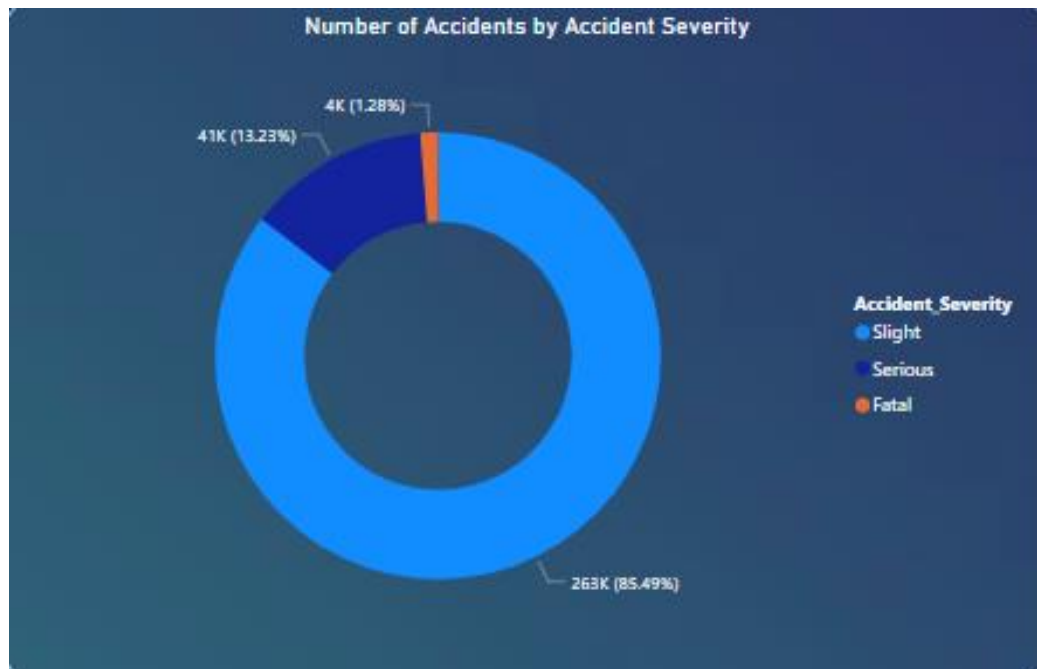
- Below is a pie chart of the Number of Accidents by Junction Detail. Most of the accidents were either **not at junction, not within 20 meters (39.97%)** or were caused in **T/staggered junction (31.41%)**.



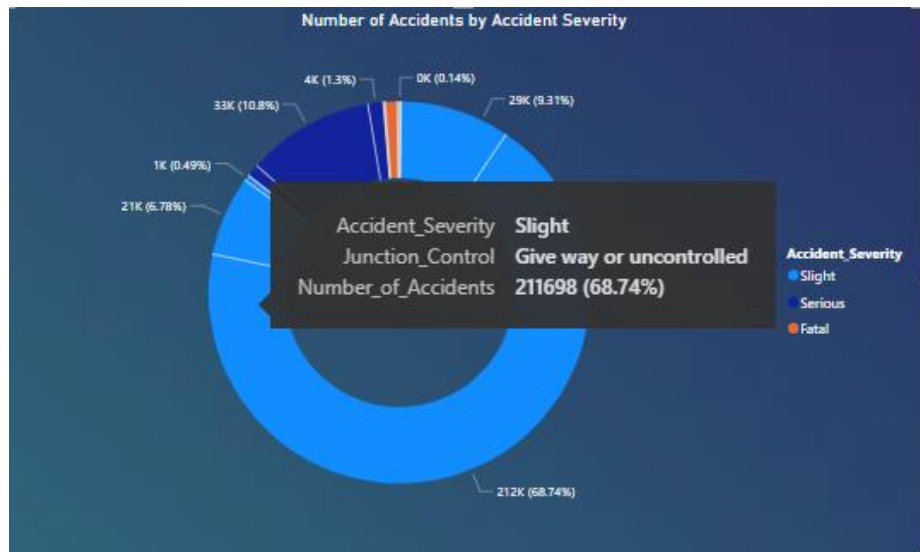
- Below is a graph of Number of Casualties by Road surface conditions and Road Type. Most of the casualties were caused by **Dry condition and Single carriageway type**.



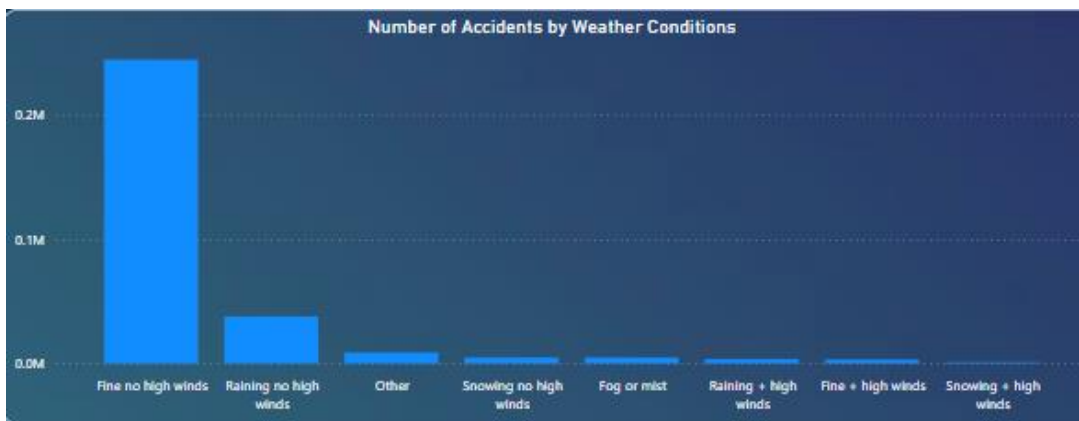
- Below is a pie chart of the distribution of Accident Severity. Most of the accidents were **slight accidents (85.49%)**.



- Since the slight accidents were more in number, upon **investigating further the cause of high number of slight accidents**, it was found that majority junctions were “**give way or uncontrolled**”.

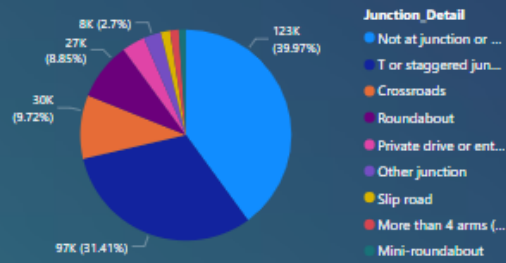


- Weather conditions **did not majorly affect** the increase in the number of accidents as most of the time, the **weather was fine, no high winds**.

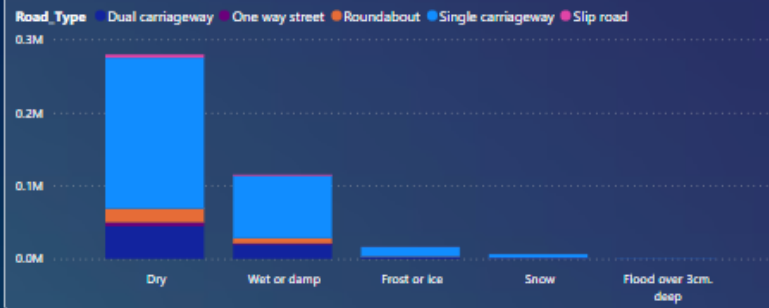


ROAD ACCIDENT ANALYSIS - DASHBOARD

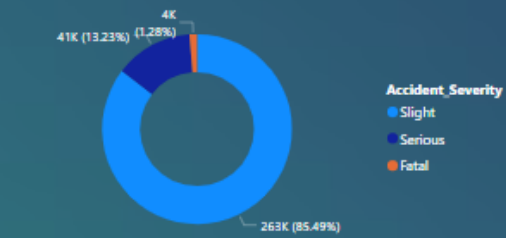
Number of Accidents by Junction Detail



Number of Casualties by Road Surface Conditions and Road Type



Number of Accidents by Accident Severity



308K
Total Accidents

418K
Total Casualties

Number of Accidents by Weather Conditions



Top Junction controls contributing to accidents

