Problem Statement: Clients want to create a Road Accident Dashboard for Year 2021 and 2022 so that they can have insight on the below requirements:-

- ❖ **Primary KPI – Total Casualties and Total Accident values for Current Year and YOY growth.**
- ❖ **Primary KPI - Total Casualties By Accident Severity for Current Year and YOY growth.**
- ❖ **Secondary KPI – Total Casualties with respect to vehicle type for Current year**
- ❖ **Monthly Trend showing compression of casualties for current year and previous year.**
- ❖ **Casualties By Road type for current year.**
- ❖ **Current year casualties by Area wise**
- ❖ **Current year casualties by Location wise**
- ❖ **Current year casualties by Day/Night wise**
- ❖ **Total Accident and Total casualties by Location**

Analysis:

Relevant KPIs used by Calculating Measures:
1. Primary KPI 1: Total Casualties and Total Accident values for Current Year and YOY growth.
2. Primary KPI 2: Total Casualties By Accident Severity for Current Year and YOY growth.
3. Secondary KPI 1:– Total Casualties with respect to vehicle type for Current year.

Other Visualizations used:
1. Monthly Trend showing compression of casualties for current year and past year.
2. Bar chart representing Casualties By Road type for current year.
3. Donut Chart representing Current year and past year casualties by Area wise.
4. Donut chart representing Current year casualties by Light Conditions.
5. TreeMap showing Casualties by Road Surface.
6. Filter Year wise and Area wise.

Insights For Year 2022:
1. We analyzed the accidents and casualties for the current year. Current year accidents were 144K. The Accidents were mostly caused by cars where the count was around 166139.
2. Total fatal casualties were 2K, serious were 19K, and slight were 124K.
3. Most of the casualties occurred in Urban areas which was around 62% as compared to Rural areas.
4. This was caused due to vehicles running on Dry road surface where the count was found to be 98684 during Daylight. This casualties were because of Single Carriageway.
5. We also analyzed month wise increase in the casualties for the current year vs past year. In the month of December, casualties were 195737.

Insights For Year 2021:
1. Past year accidents were 164K. The Accidents were mostly caused by cars where the count was around 188644.
2. We analyzed past year casualties where Toal fatal casualties were 2K, serious were 22K, and slight were 139K.
3. Most of the casualties occurred in Urban areas which was around 60% as compared to Rural areas. This was caused due to vehicles running on Dry road surface where the count was found to be 110283 during Daylight.
4. These casualties were because of Single Carriageway and the count was around 165045.
5. We also analyzed month wise increase in the casualties for the current year vs past year. In the month of December, casualties were 222146.

Observation:
We found that 2021 has slightly higher casualties than 2022. Thus, in the year 2021, more accidents took place than in the year 2022. Single Carriageway was highly responsible for Accidents as the count of CY casualties was around 165K whereas it was 145K in the year 2022. The slip Road had minimal interference for accidents. There were more of Car accidents followed by bike accidents. We also saw that urban areas had maximum accidents (94K) as compared to Rural areas(50K) for both years. The dry road surface condition contributed significantly to causing a higher number of accidents. These accidents took place during Day time more often than dark.