Advanced Excel Project: Road Accident Analysis Dashboard

1. Introduction

This project involves analyzing road accident data using Advanced Excel techniques to create an interactive dashboard. The goal is to provide insights into accident severity, casualties, and other key factors over a two-year period.

2. Project Steps

- Data Cleaning: Removed blanks, duplicates, and formatted data for analysis.
- Data Processing: Created new columns and prepared data for meaningful insights.
- Data Analysis: Identified key patterns and trends in accidents.
- Dashboard Creation: Developed an interactive Excel dashboard with filters, slicers, KPIs, and charts.

3. Key Performance Indicators (KPIs)

Primary KPIs:
- Total casualties after an accident.
- Percentage of total casualties based on accident severity.
- Maximum casualties by vehicle type.

Secondary KPIs:
- Total casualties with respect to vehicle type.
- Monthly trend of casualties comparing current and previous years.
- Maximum casualties by road type.
- Distribution of casualties based on road surface.
- Relationship between casualties, area, and time (day/night).

4. Stakeholders

- Ministry of Transport
- Road Transport Department
- Police Force
- Emergency Service Department
- Road Safety Corps
- Transport Operators
- Traffic Management Agencies
- Public and Media

5. Metadata

- File Extension: .xlsx

- Number of Rows: 0.3 million

- Sheets Included:

  - Dashboard (dash)

  - Data Sheet (main data sheet)

  - Data Analysis Sheet

- Dashboard and analysis sheet are toggleable using an icon.