Business Requirement Document (BRD) - Road Accident Dashboard

# 1. Introduction:

The purpose of this Business Requirement Document (BRD) is to outline the requirements for the development of a Road Accident Dashboard. The dashboard aims to provide insights into road accident data for the years 2021 and 2022. It will focus on various key performance indicators (KPIs) and metrics related to casualties, accident severity, vehicle types, road types, road surfaces, and the relationship between casualties and area/day/night. The stakeholders for this dashboard include the Ministry of Transport, Road Transport Department, Police Force, Emergency Services Department, Road Safety Corps, Transport Operators, Traffic Management Agencies, the general public, and the media.

# 2. Objectives:

- Provide a comprehensive view of road accident data for the years 2021 and 2022.

- Analyze and present the primary KPIs related to total casualties after the accident.

- Analyze the distribution of casualties by accident severity and identify the maximum casualties by type of vehicle.

- Present secondary KPIs related to total casualties based on vehicle types.

- Track and compare monthly trends of casualties between the current year and the previous year.

- Identify the road types with the highest number of casualties.

- Analyze the distribution of total casualties based on road surface conditions.

- Investigate the relationship between casualties and area/location, as well as casualties by day/night.

# 3. Scope:

The scope of the Road Accident Dashboard includes:

- Data for the years 2021 and 2022.

- Primary KPIs: Total casualties and the percentage of total casualties based on accident severity and maximum casualties by type of vehicle.

- Secondary KPIs: Total casualties based on vehicle types.

- Monthly trend analysis for casualties comparison between the current year and the previous year.

- Identification of road types with maximum casualties.

- Distribution analysis of total casualties based on road surface conditions.

- Relationship analysis between casualties and area/location, and casualties by day/night.

# 4. Functional Requirements:

The Road Accident Dashboard should include the following functionalities:

- Data Integration: Integrate road accident data from relevant sources for the years 2021 and 2022.

- Visualization: Present the primary and secondary KPIs using appropriate charts, graphs, and tables.

- Filters and Dropdowns: Provide interactive filters and dropdowns to slice and dice the data by accident severity, vehicle type, road type, etc.

- Monthly Trend Analysis: Display a line chart comparing monthly casualties for the current year and the previous year.

- Road Type Analysis: Present a bar chart highlighting the road types with the highest number of casualties.

- Road Surface Distribution: Show a pie chart or stacked bar chart illustrating the distribution of casualties based on road surface conditions.

- Relationship Analysis: Explore the relationship between casualties and area/location through interactive maps, and analyze casualties by day/night using a bar chart or stacked area chart.

# 5. Non-Functional Requirements:

- User-Friendly Interface: The dashboard should have an intuitive and user-friendly interface for easy navigation and exploration of the data.

- Performance: The dashboard should be responsive and provide quick and efficient data retrieval and visualization.

- Security: Implement appropriate security measures to ensure the confidentiality and integrity of the data.

- Scalability: Design the dashboard in a way that allows for future expansion and integration of additional data sources.

- Compatibility: Ensure compatibility with multiple browsers and devices to facilitate widespread access and usage.

# 6. Assumptions and Limitations:

- The availability and accuracy of road accident data for the years 2021 and 2022 from relevant sources.

- The cooperation and support of stakeholders in providing the necessary data and insights.

- The scope of the dashboard is limited to road accidents and casualties, excluding other aspects such as vehicle damage or environmental factors.