

Steps in project:

1. Requirement Gathering:

- understand objectives and requirements for the Road Safety Dashboard.
- Identify primary and secondary key performance indicators (KPIs) based on needs.
- Discuss any specific preferences or customization requirements for the dashboard.

2. Raw Data Overview:

- Obtain the raw data for road accidents for the years 2021 and 2022.
- Review the structure and contents of the dataset to understand the available fields and data quality.

3. Connecting Data with Power BI:

- Import the raw data into Power BI Desktop using the "Get Data" option.
- Connect to the dataset and load it into the Power BI data model.

4. Data Cleaning:

- Use Power Query Editor to clean and transform the data as needed.
- Handle any missing values, duplicates, or inconsistencies in the dataset.

5. Data Processing:

- Perform any additional data processing tasks such as aggregating data, creating calculated columns, or filtering out irrelevant data.

6. Data Modelling:

- Create a data model in Power BI to establish relationships between multiple tables.
- Define a calendar date table to facilitate time-based analysis and comparison.

7. Background Design:

- Design a visually appealing background for the dashboard using appropriate colors, fonts, and images.

8. Data Visualization/Charts Design:

- Create various charts and visualizations to represent the primary and secondary KPIs identified earlier.
- Use different chart types such as bar charts, line charts, pie charts, etc., to effectively convey insights.

9. Report/Dashboard Building:

- Build the main dashboard layout, organizing the visualizations in a logical and intuitive manner.
- Include slicers, filters, and drill-down options to enhance interactivity and usability.

10. Insights:

- Analyze the visualizations and derive meaningful insights from the data..

11. Power BI Functionalities:

- Utilize Power BI functionalities such as DAX calculations, importing images, and creating custom columns and measures to enhance the dashboard.

12. Export the Report:

- Once the dashboard is complete, export it as a Power BI report file (.pbix) or (.pdf) for sharing and distribution.

Requirement in Project:

Create a Road Safety Dashboard for year 2021 and 2022 so that they can have insight on the below requirements:

- 1. Primary KPI-** Total Casualties and Total Accident values for Current Year and YoY Growth.
- 2. Primary KPI's-** Total Casualties by Accident Severity for Current Year and YoY Growth.
- 3. Secondary KPI-** Total Casualties with respect to Vehicle Type for Current Year.
- 4.** Monthly Trend showing comparison of Casualties for Current Year and Previous Year.
- 5.** Casualties by Road Type for Current Year.
- 6.** Current Year casualties by area/location & by Day/Night.
- 7.** Total Casualties and Total Accidents by location.

Comprehensive document showcases the key findings and visual representations of road safety metrics, including total casualties, accident severity, vehicle types involved, monthly trends, and casualties by road type, location, and time of day.

The experience has been instrumental in furthering my skills in data analysis and visualization, and I am confident that the knowledge gained will prove beneficial in my future endeavors.

Thank You,

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