QLIK ANALYSIS OF ROAD SAFETY AND ACCIDENT PATTERNS IN INDIA

INTRODUCTION

1.1 Overview

The project utilizes Qlik's data analytics platform to analyze accident patterns in india, identifying trends and factores contributiing to accidents. This data-driven analysis helps stakeholders, including government authorities, transportation agencies, and road safety organizations, make informed decisions to improve safety measures, reduce accidents and save lives, ultimately enhancing road safety in India.

DEFINE PROBLEM/ PROBLEM UNDERSTANIDNG

2.1 Specifying the business problem

Technological advancement in India has led to increased risks in road safety, with accidents resulting in lakhs of deaths and serious injuries. To address this issue, a study using Qlik Sense, a data analytics platform, will analyze road safety trends in India. The data-driven approach will analyze accident types, locations, causes and potential factors contributing to safety. The insights will inform stratergies for improving road safety in India.

2.2 Business Requirements

The analysis provides valuable insights into user demographics, accident patterns and problem areas, aiding in strategic planning and operational improvements. This data aide in making informed decisions, implementing better safety protocols and ensuring regulatory compliance.

2.3 Literature Survey A literature survey for Road Safety and Aciident Patterns analysis involves reviewing previous studeies, articles, reports and figures on the topic. It includes information on methods and techniques used for accident data analysis. Academic databases like PubMed, IEEE, Xplore, Google Scholar and institutional repositories are recommended. Government reports and publications offer insights into latest developments

DATA COLLECTION

3.1 Collect The Dataset

Data collection involves systematic gathering and measurements of variables to answer research questions, test hypotheses, evaluate outcomes and generate insights from the collected data.

3.2 Connect Data With Qlik Sense

The dataset is uploaded to Qlik Sense, where it is connected using Qlik's data load editor. The data is then structured and organized for analysis.

DATA PREPARATION

4.1 Prepare The Data For Visualization

Data preparation involves cleaning the dataset, handling missing values, and transforming data into a suitable format for visualization. This step ensures the accuracy and reliability of the data used for analysis.

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DATA VISUALIZATIONS

5.1 Visualizations

The system should provide users with data visualization tools that allow them to explore and analyze the data. It should also provide interactive maps that allow users to view the location of accidents and other relevant information.

DASHBOARD

6.1 Responsive And Design Of Dashboard

A dashboard is a user-friendly, organized and easily-read GUI that provides real time data monitoring anf analysis in various indudtries like business, finance, manufacturing and healthcare. These tools are designed for specific purposes and can track key perofrmance indicator(KPIs) , monitor performance metrics, and display data in charts, graphs and tables.

REPORT

7.1 Report Creation

Reports are generated to summarize the findings from the data analysis. These reports include key insights, visualizations and recommendations fro improcing road safety.

PERFORMANCE TESTING

8.1 Amount of data rendered

Performance testing is conducted to evaluate how Qlik Sense handles large volumes of data. This involves testing the rendering speed and responsiveness of visualizations when dealing with substantial datasets.

8.2 Utilization Of Data Filters

The effectiveness of data filters is assesed to endure users can efficiently navigate and analyse specific subsets of data. This includes testing the performance impact of applying multiple filters simultaneously.

By following this structures approach, the project demonstrates the powerful capabilities of Qlik Sense in transforming synthetic accidents data into actionable insights, ultimately aiding in the optimization of road safety operations.