**Name: -** Vatsal Rameshbhai Gohel

**Mail id: -** [**gohel.vatsal11@gmail.com**](mailto:gohel.vatsal11@gmail.com)

**Contact Detail: -** +1-774-253-3960

**LinkedIn Id: -** <https://www.linkedin.com/in/gohelvatsal/>

**GitHub Id: -** <https://github.com/vatsalgohel>

**Project Portfolio**

**Road Accidents Analysis and Road Safety Enhancement**

**Project Title:**

National Road Safety Intelligence Bureau Project

**Problem Statement:**

The Department for Transport of the UK faces a significant increase in road accidents leading to tragic loss of human lives. The challenge is to analyse extensive road accident data to identify root causes and implement effective solutions to reduce accidents and improve road safety.

**Project Description:**

**Objective:**

Analyse road accident data to identify patterns and trends causing accidents, develop strategies for road safety enhancement.

**Scope:**

Data analysis covers road accidents from 2019 to 2022 across the UK, focusing on factors like road conditions, weather, vehicle types, and driver behaviour.

**Deliverables:**

Comprehensive analysis report, interactive dashboard for stakeholders, recommendations for road safety improvements.

**Methodology:**

**Tools and Technologies Used:**

* Excel for data collection
* Python for data analysis
* Tableau for visualization

**Process:**

Data cleaning, exploratory data analysis, statistical modeling, interactive dashboard creation, stakeholder presentations.

**Role and Responsibilities:**

Detailed in the project team's collaboration—data collection, cleaning, analysis, visualization, and presentation.

**Results and Impact:**

**Outcome:**

Identified drivers’ behaviour as a primary cause of accidents, highlighted accident patterns by location, time, and conditions.

**Impact:**

Recommendations for real-time data integration via a mobile app to enhance emergency response and public awareness.

**Challenges and Solutions:**

**Challenges Faced:**

Data quality issues, integrating diverse data sources, ensuring stakeholder engagement.

**Solutions Implemented:**

Rigorous data cleaning, standardized data formats, stakeholder workshops for feedback.

**Conclusion and Learnings:**

**Summary:**

Successfully analysed road accident data to derive actionable insights for improving road safety.

**Learning Experience:**

Importance of data integrity, stakeholder collaboration, and iterative improvement in road safety strategies.

**Link for the file:**

<https://drive.google.com/drive/folders/1RPgjop6a1SSpepOwAfAusjMDxadnDvRK?usp=sharing>