



# Data Visualization with Tableau



Rekha .  
01 Feb 2024

# Overview

01

Introduction

02

Process

03

Purpose of  
Analysis

04

Results

05

Future Moves



# Introduction

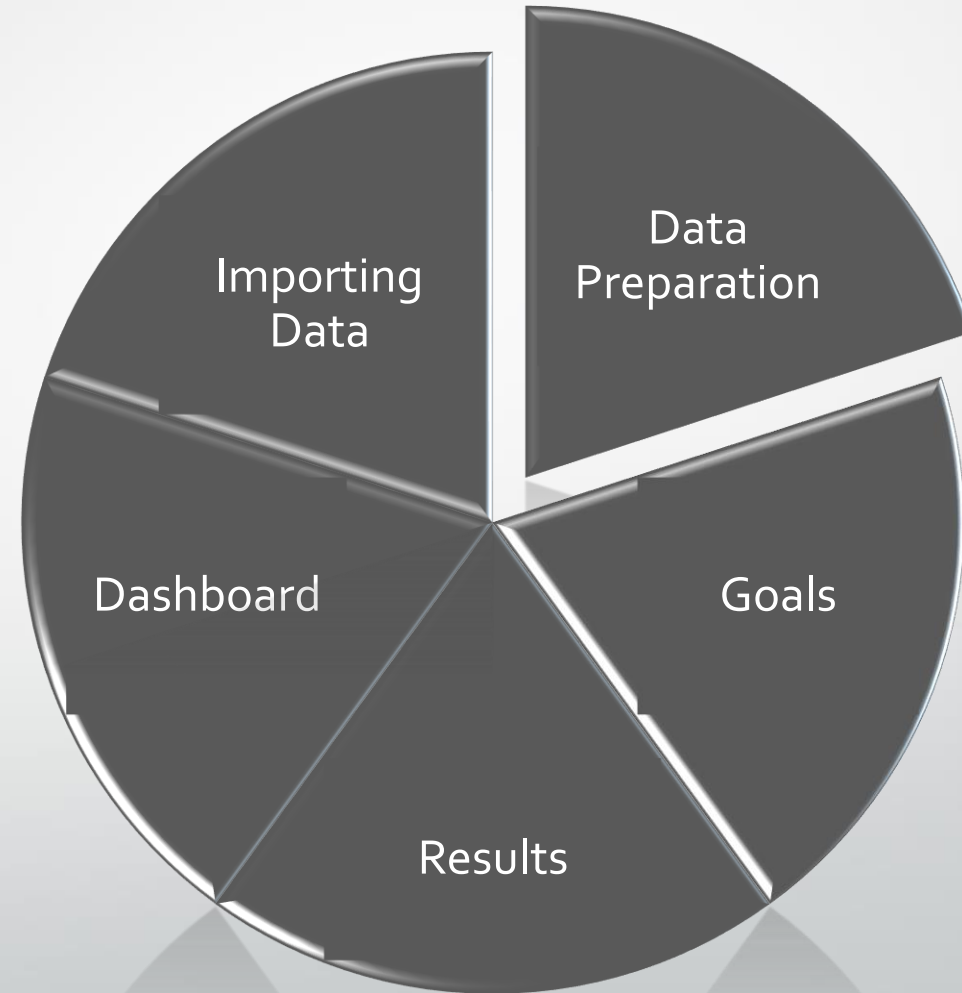
## Data Source- Kaggle

This project investigates road accident causes like weather, road types, and vehicles to enhance safety measures.

The goal is to reduce injuries and fatalities through improved infrastructure and increased public awareness.



# Process



# Tools Stack



Excel



Python

Jupyter



Tableau





# Purpose of analysis

- Analysing data to understand the patterns and causes of road accidents.
- Analysis of total accidents and casualties vary monthly and yearly, considering different locations.
- Analyzing data to comprehend the severity of accidents (fatal, serious, slight) by examining vehicle type, road type, road surface, and weather conditions.
- Aiming to improve preventive measures and reduce injuries and economic losses.



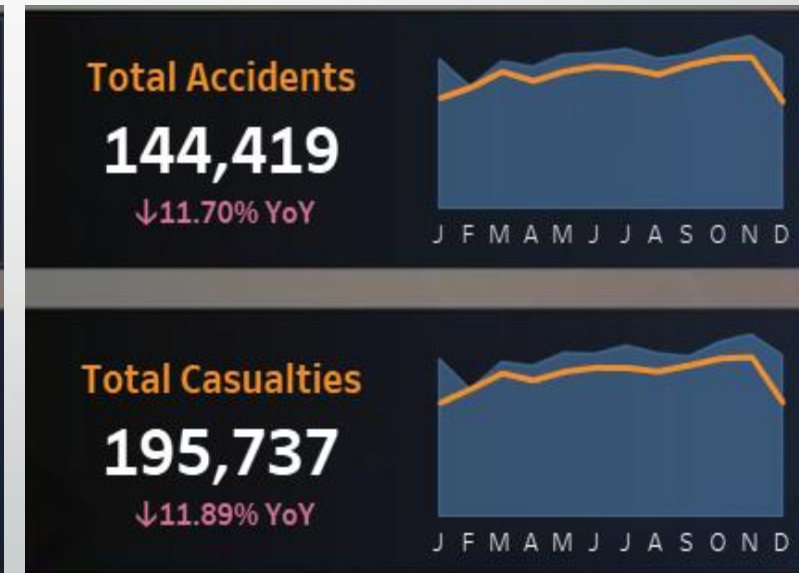
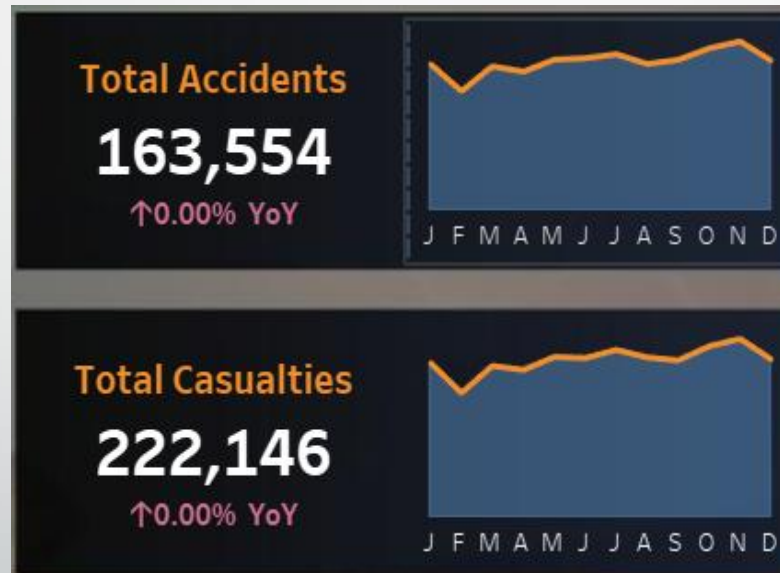
# Results

The highest number of accidents and casualties was recorded in November for both years, showing a decrease in December for 2022 and decrease in February for 2021.

2021

Vs

2022



# Results

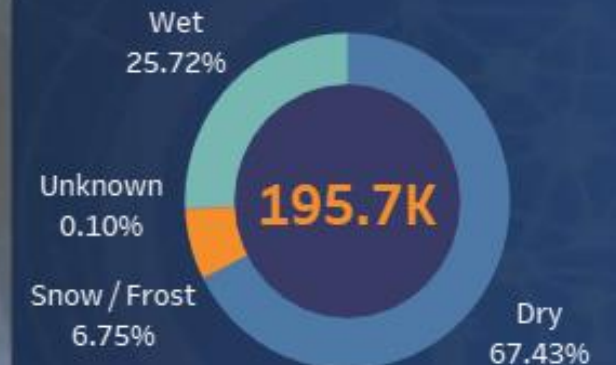
The majority of accidents occur under clear weather conditions and dry road surfaces, rather than in snowy, wet, or foggy conditions.



All Casualties by Weather Cond.



All Casualties by Road Surfaces



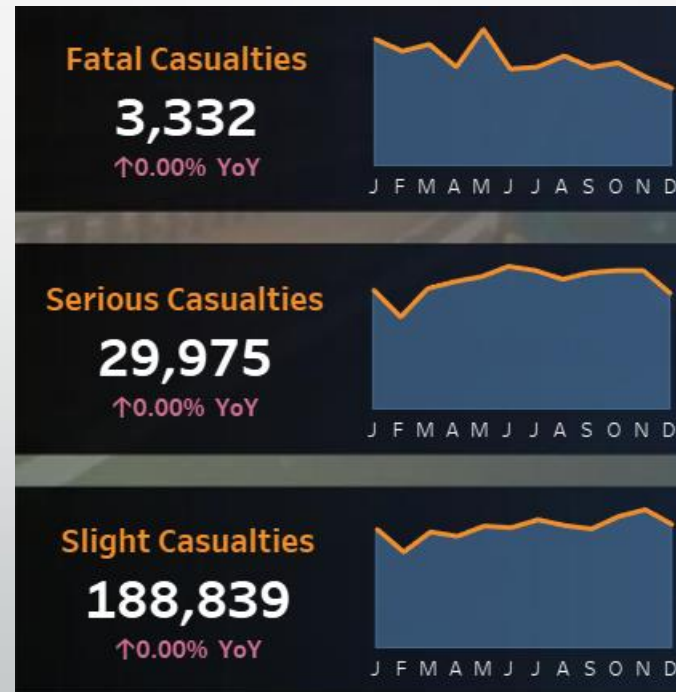


# Results

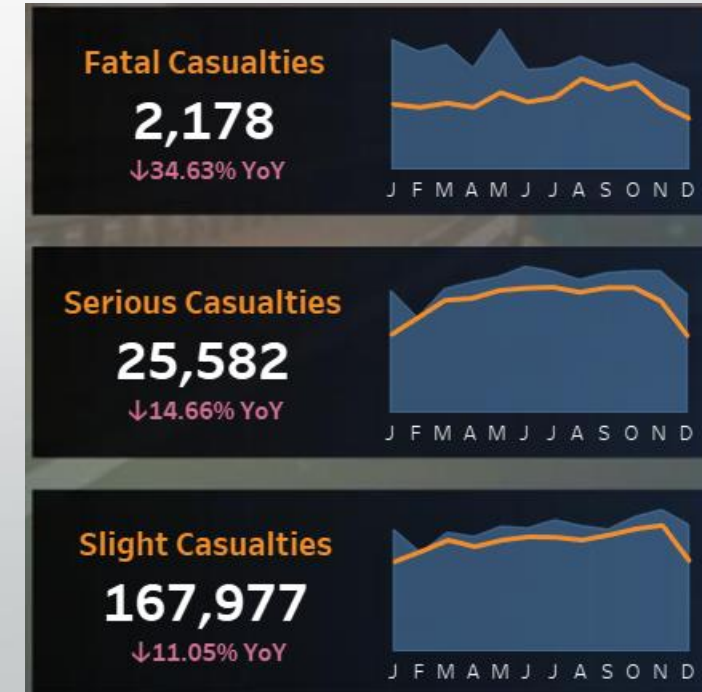
## Accident Severity-

All types of accident severities witnessed a overall decline in 2022, with December showing a notable decrease.

2021



2022



# Results

Vehicle Type- In 2022, overall casualties by vehicle type decreased, but bus-related casualties saw a slight increase.

2021

## All Casualties by Vehicle Type



633  
↑0.00%



6,225  
↑0.00%



177,681  
↑0.00%



18,093  
↑0.00%



1,947  
↑0.00%



17,567  
↑0.00%

2022

## All Casualties by Vehicle Type



399  
↓36.97%



6,573  
↑5.59%



155,804  
↓12.31%



15,579  
↓13.89%



1,477  
↓24.14%



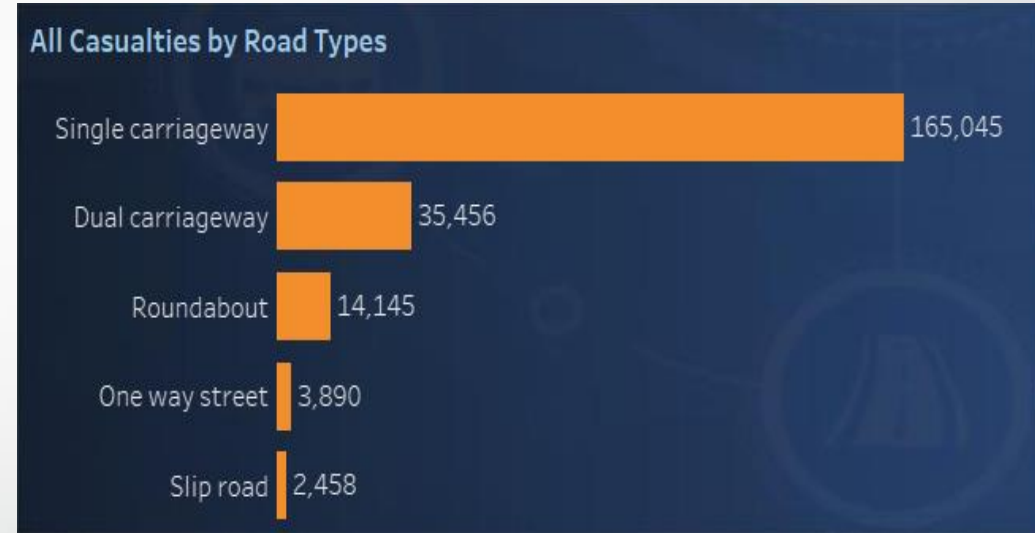
15,905  
↓9.46%



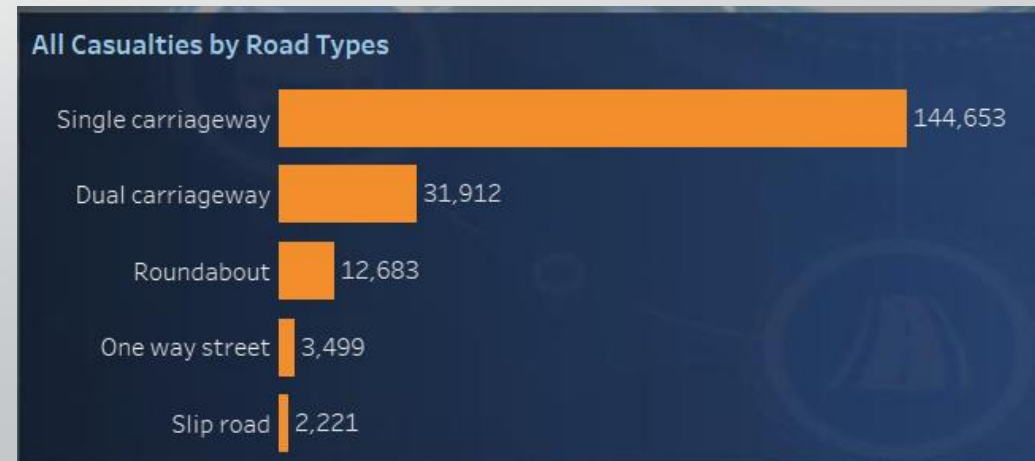
# Results

Road Types-  
All kind of Accident severity (Fatal, serious, slight) casualties occurred predominantly on single carriageways, with a minimum recorded on slip roads.

2021



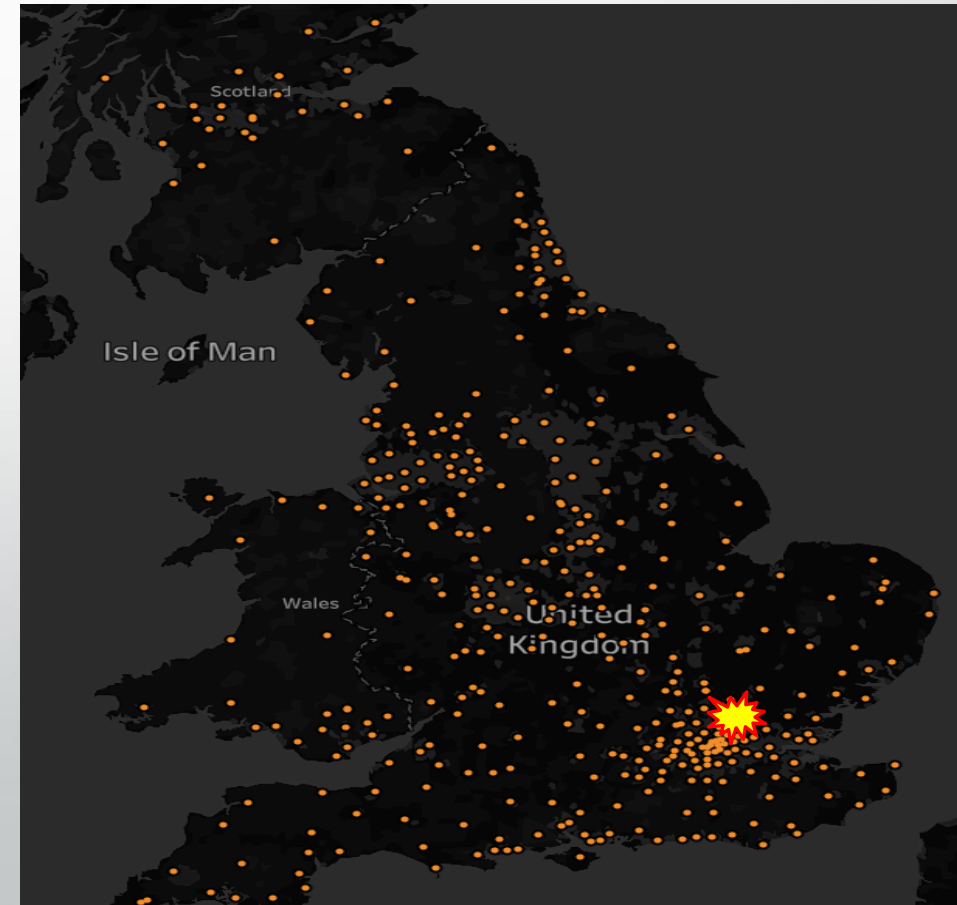
2022



# Results

Location-

We also identified that many locations such as Barnet and Southwark where a significant number of accidents occurred, along with corresponding casualties and vehicle involved



## Challenges

The data was quite large, causing delays in loading.  
Encountered challenges in generating sparklines while developing KPIs.

## Future moves

- Analyzing important factors: time, age, gender, and location.
- Investigating the influence of lighting on road safety.
- Goal: Enhance understanding and contribute valuable insights for improving road safety measures.







# THANK YOU

<https://github.com/rekhadivay>

<https://www.linkedin.com/in/rekharekha>