

# **ROAD ACCIDENT DATA COMPARISON: DRY VS RAINY SEASONS**

PRESENTATION

# Introduction

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Road accidents are a major cause of injuries and fatalities worldwide. Weather conditions significantly influence driving safety. Dry and rainy days create vastly different road conditions that affect accident frequency, severity, and causes. Understanding these differences is crucial for improving road safety measures and reducing accident rates.



# Objective



The objective of this study is to analyze and compare road accident data during dry and rainy conditions to understand how weather impacts accident frequency, severity, causes, locations, and timing patterns. This includes quantifying differences in accident numbers, examining severity levels, identifying common causes, locating accident hotspots, and studying time-of-day trends. The aim is to uncover actionable insights that can guide preventive measures, awareness campaigns, and policy improvements to enhance road safety under different weather conditions.

# Data Overview

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## 01. **Dataset Source:**

We created Database in SQL with the help of ChatGPT

## 02. **Timeframe:**

January 2021 – December 2025 (5-year period).

## 03. **Key Data Fields:**

- Date & Time of Accident
- Location
- Weather Condition
- Severity of Accident
- Cause of Accident
- Vehicle Type Involved





# Accident Causes

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- Visual Ideas for Accident Causes Slide:
- Two Column Comparison Infographic:
- Left column → Dry season causes
- Right column → Rainy season causes
- Icons:
- Speedometer → Overspeeding
- Mobile phone → Distracted driving
- Skid marks → Slippery roads
- Cloud with rain → Poor visibility
- Color coding: Dry → Orange/Yellow, Rainy → Blue.

# Recommendations

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## For Dry Season:

- Strict speed control measures (speed cameras, speed limits).
- Awareness campaigns against distracted driving.
- Regular road maintenance to prevent hazards.

## For Rainy Season:

- Improve road drainage to avoid waterlogging.
- Install reflective road signs and hazard warnings.
- Public awareness campaigns on safe driving in rain.
- Encourage reduced speed limits during heavy rain.

# Key Insights

- 1. Accident Frequency:** Rainy days have a significantly higher accident rate due to poor visibility and slippery roads.
- 2. Accident Severity:** Fatal accidents are more frequent during rainy conditions, while dry days see more minor accidents.
- 3. Causes:** Dry season accidents are often caused by overspeeding and distractions; rainy season accidents are mainly due to slippery surfaces and reduced visibility.
- 4. Location Trends:** Highways see more severe accidents during rain; city roads show higher accident counts in dry weather.



# Conclusion



Weather conditions have a significant impact on road accident frequency, severity, and causes. Rainy days contribute to a higher number of accidents and more severe incidents due to slippery roads and poor visibility, while dry days generally have more accidents caused by overspeeding and distractions. Understanding these trends can help design better road safety measures, targeted awareness campaigns, and effective traffic management strategies to reduce accidents in both conditions.

# **Q&A / Thank You**

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**We appreciate your time and  
attention.  
Any Questions?**

