



# Global Terrorism Database

By using plotly

# Introduction

In an increasingly interconnected world, the study of global terrorism has become a critical endeavor for governments, researchers, and policymakers alike. Understanding the dynamics of terrorism, its trends, and its impact on societies is essential for developing effective counterterrorism strategies and fostering global security. To facilitate this understanding, data-driven approaches have gained prominence, with the Global Terrorism Database (GTD) emerging as a valuable resource for analyzing and visualizing terrorism-related information. In this context, the utilization of Plotly, a powerful data visualization library, offers an exciting avenue to create dynamic and interactive visual representations of terrorism data. This exploration seeks to delve into the fusion of the Global Terrorism Database and Plotly, demonstrating how this combination can empower analysts, researchers, and the public in comprehending the complex landscape of global terrorism. In this article, we will discuss the significance of the Global Terrorism Database, introduce Plotly as a visualization tool, and highlight the potential benefits of merging these two resources for comprehensive insights into global terrorism patterns and trends.

# Tool

Plotly is a powerful and flexible data visualization tool that empowers users to transform data into insightful and interactive visualizations. Its user-friendly interface, extensive charting options, and integration capabilities with data science tools have made it a preferred choice for individuals and organizations seeking to convey data-driven insights effectively. Whether you're a data scientist, analyst, or developer, Plotly offers a valuable set of tools to enhance your data visualization capabilities.



# Usage of Tool

Some important usage of the plotly:

- Exploratory Data Analysis (EDA)
- Data Reporting and Storytelling
- Financial Analysis and Stock Market Visualization
- Geospatial Data Visualization
- Scientific Data Visualization
- Machine Learning Model Evaluation
- Healthcare and Medical Data Visualization
- Environmental Data Analysis
- Educational and Training Purposes
- Social Media Analytics
- Marketing and Customer Analytics
- Astronomy and Astrophysics



# Objective

- Trend Analysis
- Geospatial Mapping
- Attack Type and Target Analysis
- Group Affiliation and Motivation
- Impact Assessment



# Timeline



Week 1

16<sup>th</sup> Feb, 2024



Week 2

23<sup>th</sup> Feb, 2024



Week 3

29<sup>rd</sup> Feb, 2024



Week 4

06<sup>th</sup> March, 2024



Week 5

18<sup>th</sup> March, 2024

# Used Algorithm

Plotly is used primarily for data visualization and interaction, and the choice of algorithm depends on the specific data analysis task. The selection of algorithms will be driven by the objectives of analysis, the nature of the data, and the insights aim to derive from it.

Here no specific algorithm is used for the Global Terrorism Database it is purely a data visualization project.

# Step-by-Step Description

**Step 1: Define Project Objectives**

**Step 2: Data Acquisition**

**Step 3: Data Preprocessing**

**Step 4: Exploratory Data Analysis (EDA)**

**Step 5: Select Visualization Types**

**Step 6: Data Visualization with Plotly**

**Step 7: Interpret and Communicate Insights**

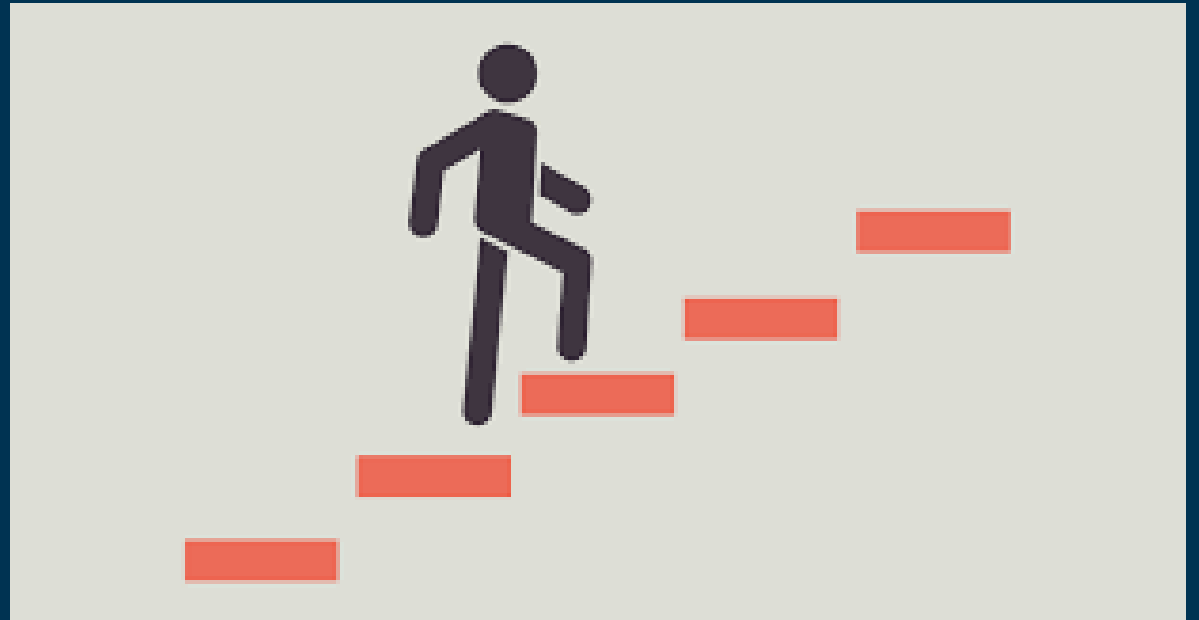
**Step 8: Create Interactive Dashboards**

**Step 9: Documentation and Reporting**

**Step 10: Review and Refine**

**Step 12: Presentation and Sharing**

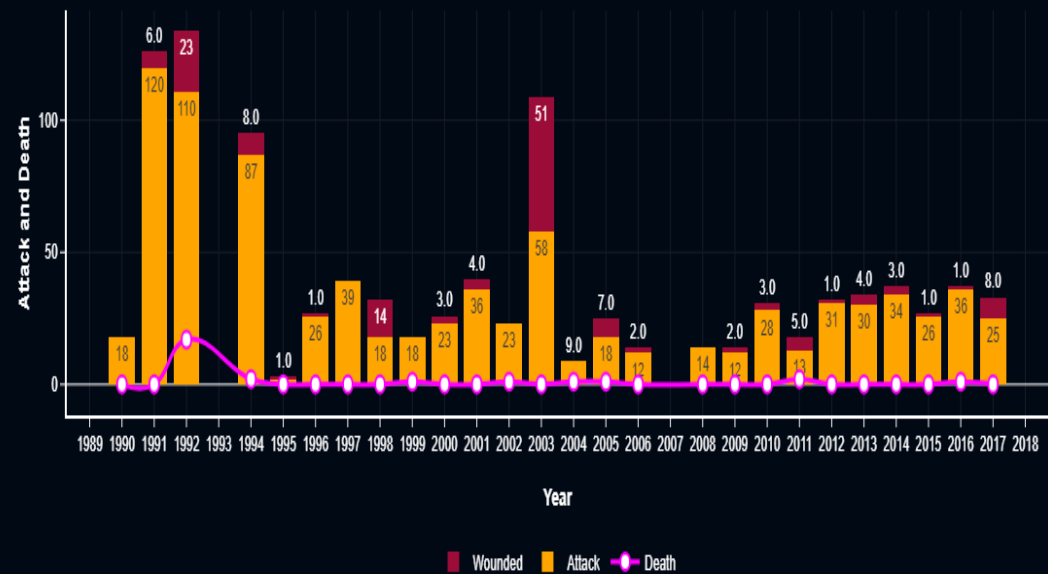
**Step 13: Feedback and Iteration**



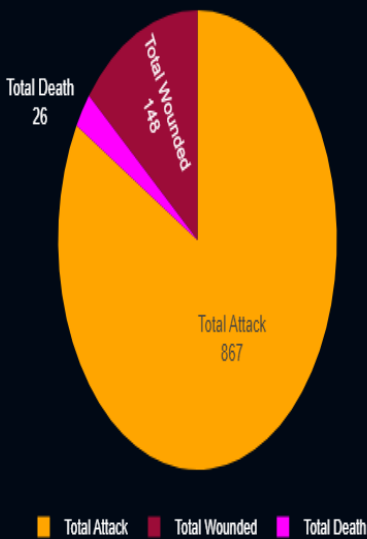


# Result

Attack and Death : Italy  
1990 - 2017

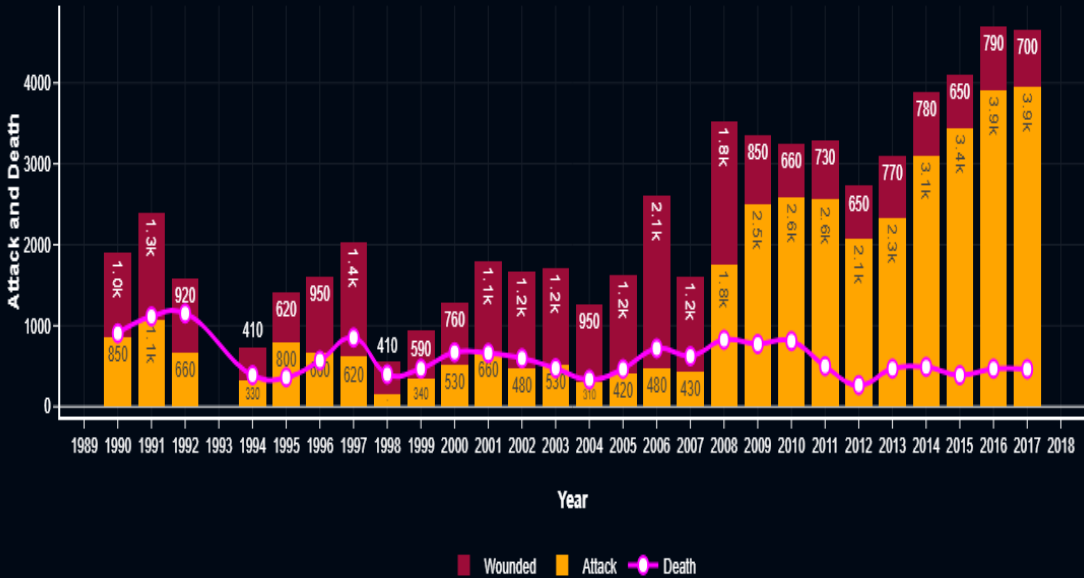


Total Casualties : Italy  
1990 - 2017

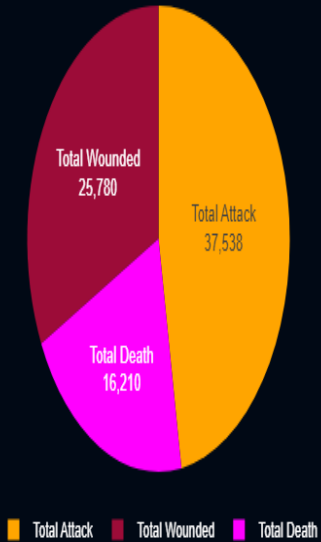


# Result

Attack and Death : India  
1990 - 2017



Total Casualties : India  
1990 - 2017



# Summary

This project harnesses the Global Terrorism Database (GTD) alongside Plotly, a potent data visualization library, to delve into the complex realm of global terrorism. It entails defining specific objectives, acquiring and preprocessing the GTD dataset, and conducting exploratory data analysis (EDA) to uncover insights. Plotly is employed to create a diverse range of visualizations, including geospatial maps, time series plots, and group analyses. These visualizations facilitate the identification of patterns and trends in terrorism incidents, aiming to answer crucial questions about terrorism dynamics. The project culminates in the interpretation of insights and the development of interactive dashboards or reports to effectively communicate findings to stakeholders. Continuous refinement based on feedback ensures the clarity and accuracy of the analysis, making this project a valuable tool for understanding and addressing global terrorism challenges.



**Thank You**