**Exploratory Data Analysis on Global Terrorism**

**Problem Statement:** Terrorism continues to pose a major threat to global peace and security, with thousands of incidents impacting lives and stability worldwide. The recent attack in Pahalgam, Jammu & Kashmir, highlights the ongoing risks even in heavily monitored regions. Despite extensive data on such incidents, meaningful insights are often buried in complexity. This project uses an interactive Tableau dashboard to analyze global terrorism trends, helping stakeholders identify patterns, high-risk areas, major perpetrators, and targets to support informed decision-making and counterterrorism efforts.

**Introduction:**

This Tableau dashboard presents an exploratory data analysis of global terrorism incidents, offering a comprehensive visual overview of terrorism-related activities worldwide. The visualization aggregates and analyzes historical terrorism data to identify key patterns, trends, and insights into the nature and impact of global terrorist activities.

The dashboard includes the following key components:

**1. Countries Affected by Terrorism (Map View)**

* A world map highlights the countries impacted by terrorist attacks.
* The intensity of color indicates the frequency of attacks, with darker shades (e.g., red and orange) showing more heavily affected nations such as Iraq, Pakistan, and Afghanistan.
* This map enables geographic comparisons and helps users visually identify global hotspots of terrorism.

**2. Yearly Attacks (Line Graph)**

* This line chart displays the total number of attacks per year from 1970 to 2017.
* Key observations:
  + A sharp rise in terrorist activity from 2004 onward.
  + A peak around 2014 with **16,903 attacks**, likely influenced by ISIS’s rise.
  + This corresponds with the rise of ISIS, conflict in Syria and Iraq, and increased activity from groups like Boko Haram and the Taliban.
  + Post-2014, a noticeable decline is observed, but the numbers remain high compared to earlier decades.
* This helps track how terrorism evolved over time and correlates with global political events.

**3. Top 20 Affected Countries (Horizontal Bar Chart)**

* Lists the top countries with the highest number of recorded attacks.
* **Iraq (24,636 attacks)** tops the list, followed by Pakistan, Afghanistan, and India.
* This ranking contextualizes the regions most impacted by terrorism and helps prioritize regional risk assessment.

**4. Top 20 Affected Cities**

* Highlights cities most frequently targeted in terrorist incidents.
* **Baghdad** ranks the highest among identifiable cities, while many incidents are recorded under "Unknown," reflecting gaps in location-specific data.
* Other high-risk cities include Karachi, Mosul, and Quetta, showing urban centers are particularly vulnerable.

**5. Success Rate of Attacks (Pie Chart)**

* Visually presents the success vs. failure rate of terrorist attacks.
* **Success: 88.96%**, **Fail: 11.04%** — indicating that the vast majority of attacks achieved their intended physical impact.
* This insight stresses the effectiveness of terrorist operations and the urgency for improved countermeasures.

**6. Target Categories (Treemap)**

* Breaks down who or what was targeted in these attacks.
* **Private Citizens & Property** were most targeted (43,511 incidents), followed by **Military**, **Government**, and **Business**.
* The treemap format allows quick comparisons between categories and shows how both civilian and institutional targets are at risk.

**7. Types of Attacks (Bubble Chart)**

* Visualizes the most commonly used methods of attack.
* **Bombing/Explosion** is the most dominant method, followed by **Armed Assault**.
* Other methods (e.g., Hijacking, Assassination) are shown with smaller bubbles, reflecting lower frequency.
* The bubble size helps viewers quickly understand which methods are most prevalent and dangerous.

**8. Top 15 Terrorist Gangs/Groups (Bar Chart)**

* Lists terrorist organizations with the highest number of attributed attacks.
* A large number of incidents are marked as **“Unknown”** (82,782), showing challenges in identifying perpetrators.
* Known groups like the **Taliban (7,478)**, **ISIS**, **Shining Path**, and **Boko Haram** are among the top contributors.
* This chart aids in profiling the most dangerous terrorist entities and their relative activity.

**Aims of the Project**

* To analyze global terrorism trends using visual analytics.
* To identify the most affected countries, cities, and target groups.
* To examine the frequency and success rate of different attack types.
* To highlight the most active terrorist organizations over time.
* To support policymakers, researchers, and security agencies with data-driven insights for prevention and response strategies.

**Conclusion**

The exploratory data analysis of global terrorism reveals critical insights into the scale, distribution, and nature of terrorist activities worldwide. Countries like Iraq, Pakistan, and Afghanistan have faced the highest number of attacks, with civilians, governments, and security forces being frequent targets. Bombings and armed assaults are the most common attack types, and a significant number of incidents have been attributed to unknown or unclaimed groups.

The analysis also shows that terrorism has evolved over the decades, peaking around 2014, and remains a persistent threat today, as evidenced by recent incidents such as the Pahalgam attack in Jammu & Kashmir.

This dashboard serves as a valuable tool for stakeholders to monitor terrorism trends, allocate resources effectively, and design informed counterterrorism strategies. By visualizing complex datasets in an interactive and accessible manner, it bridges the gap between raw data and actionable intelligence.