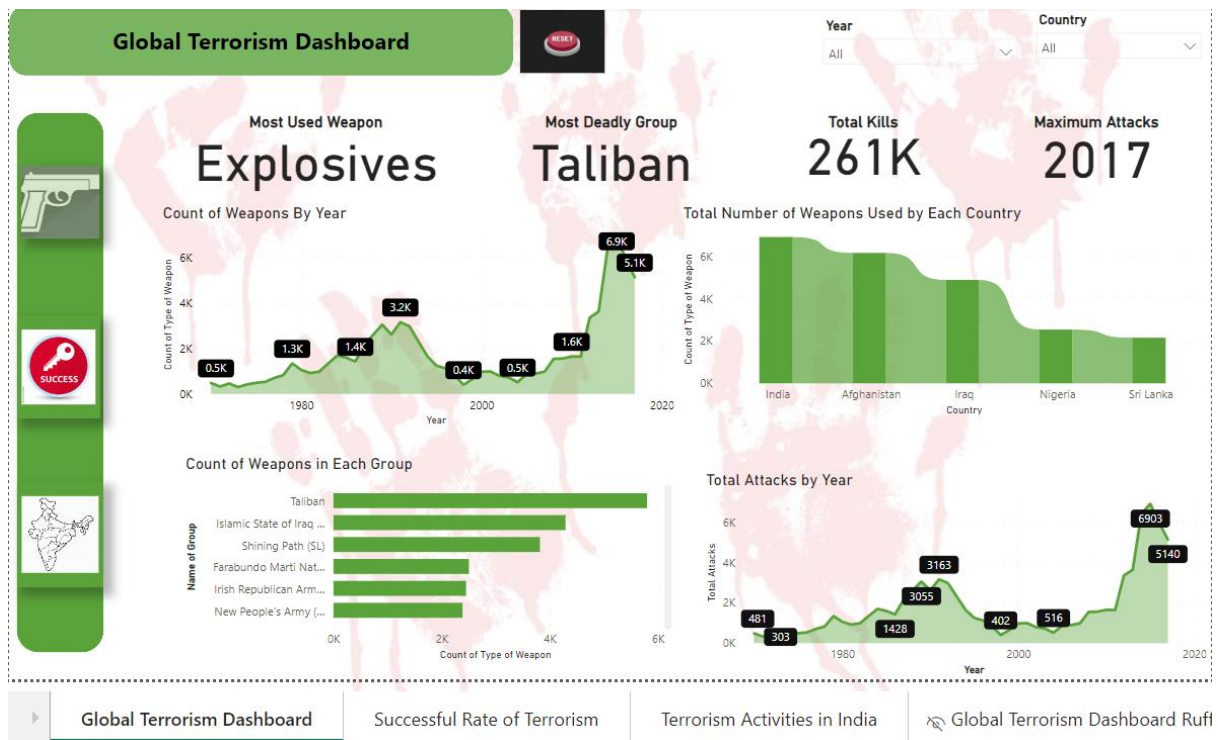# Global Terrorism Dashboard
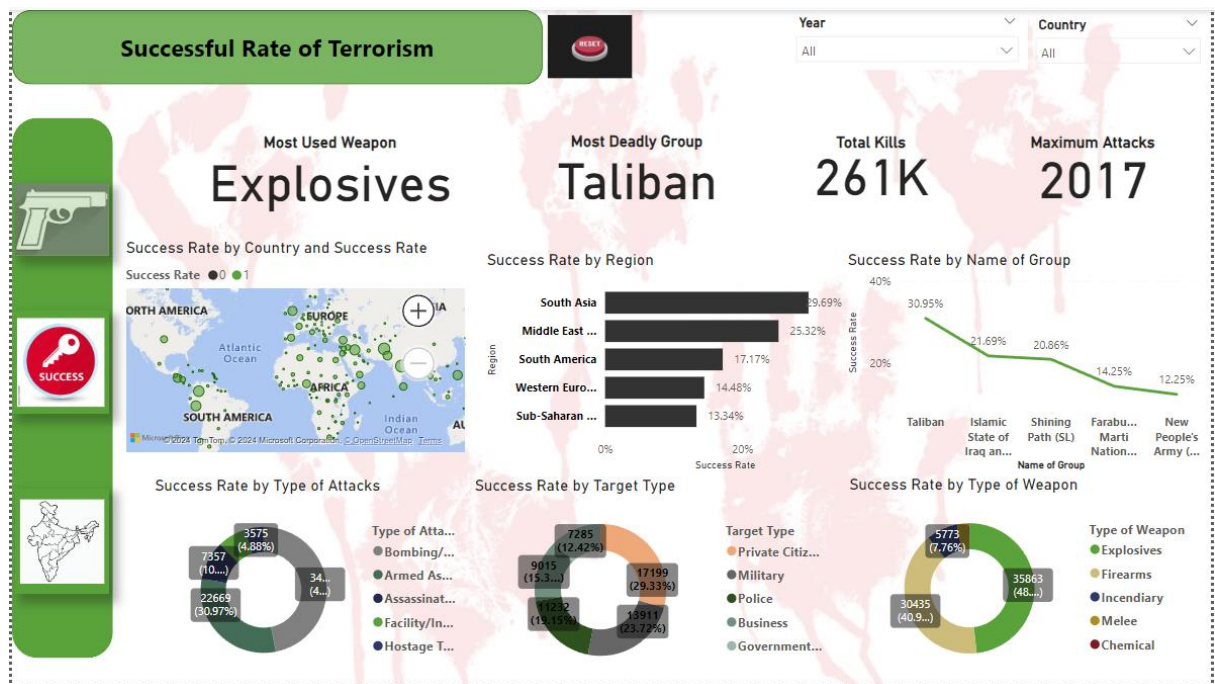
Capstone Project Objectives

1. **Most Used Weapons**
2. **Total Number of Weapons Used by Each Country**
3. **Count of Weapons in Each Group**
4. **Total Attacks by Year**
5. **Success Rate by Country and Success rate**
6. **Success Rate by Region**
7. **Success Rate by Name of Group**
8. **Success Rate by Type of Attack**
9. **Success Rate by Target Type**
10. **Success Rate by Type of Weapon**
11. **Total Number of Kills Each Year in India from 1970 to 2017**
12. **Most Attacks Targets in India from 1970 – 2017**
13. **Number of Attacks each year in India**
14. **Indian States with Most Number of Terrorist Attacks**
15. **Total Damage from 1970 to 2017 Vs Terrorist Attack Type in India**
16. **Reset Button: Used to Clear all The Filtered Actions**
17. **Filter**
    1- **Year: Global Terrorism Dashboard, Success Rate of Terrorism**
    2- **Country: Global Terrorism Dashboard, Success Rate of Terrorism**
    3- **City: Terrorist Activities in India**
18. **Slicers**
    1- **Most Used Weapons**
    2- **Most Deadly Group**
    3- **Total Kills**
    4- **Maximum Attacks**
19. **The solution to Business Objective**
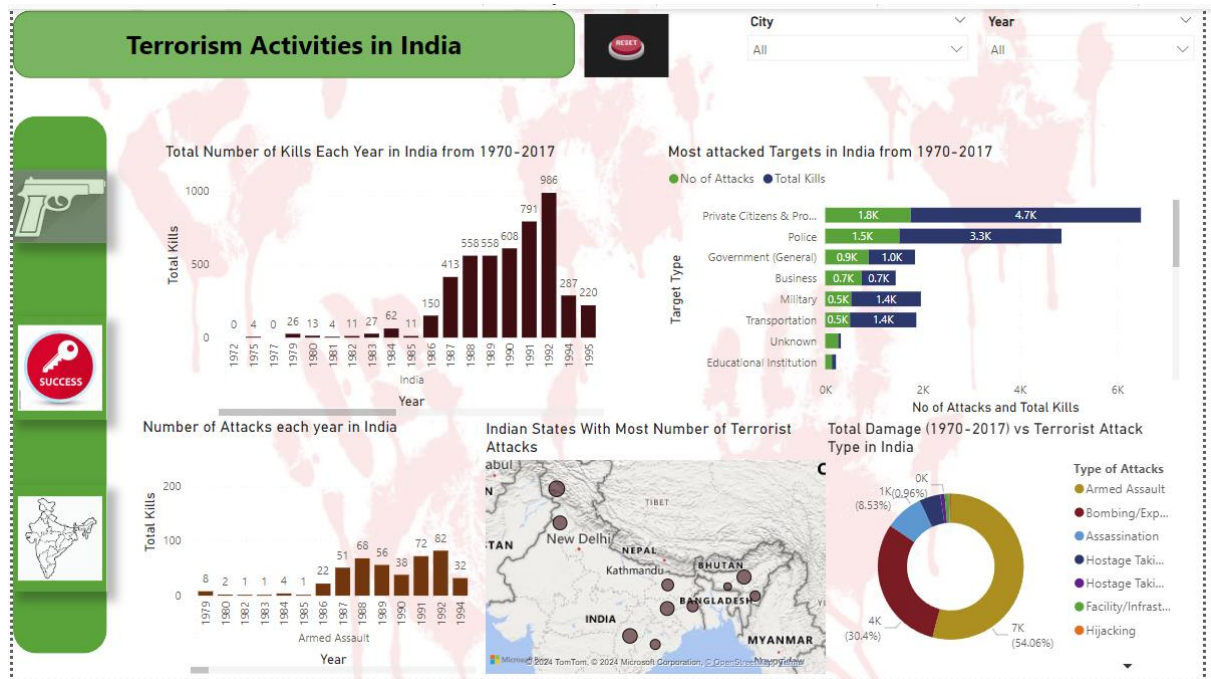20. **Conclusion**
21. **Future Solutions**

Insights :

1. **Count of Weapons by Year: -** In 2015, there was a noticeable increase in the use of weapons. However, after this spike, a decline in the growth rate of weapon usage can be observed

2. **Total Number of Weapons Used by Each Year: -** According to the chart, India ranks as the top country for weapon usage by terrorists, with a total of 6,911 instances involving all types of weapons.

3. **Count of Weapons in Each Group: -** The Taliban is the leading terrorist group worldwide in terms of weapon usage, utilizing a total of 5,800 weapons across all types

4. **Total Attacks by Year: -** In 2015, there were 6,903 attacks worldwide, which coincides with a high count of weapon usage in that year, as observed in the first chart

Insights:-

5. **Success Rate by Country and Success Rate: -** The map in this chart illustrates worldwide data on the number of attacks and their success rates in each country, highlighting Afghanistan as the most affected country by terrorism, with 5,693 attacks

6. **Success Rate by Region: -** The chart shows that South Asia is the most affected region in the world by terrorism, with a success rate of 29.69% for attacks in this region

7. **Success Rate by Name of Group**: - This chart indicates that the Taliban has a higher success rate in terrorism compared to other groups, with a success rate of 30.95%

8. **Success Rate by Type of Attacks:** The chart shows that bombings and explosions have a higher success rate compared to other types of attacks, with a success rate of 46.88%

9. **Success Rate by Target Type: -** This chart reveals that private citizens and property are the most affected targets in terrorist attacks, with a higher success rate of 29.33% compared to other types of targets

10. **Success Rate by Type of Weapons:** - This chart shows that explosive weapons used by terrorists have a higher success rate compared to other types of firearms, with a success rate of 48.23%.

Insights: -

11. Total Number of Kills Each Year in India from 1970 – 2017: - In India, the year 1992 saw 986 kills due to terrorism, which is higher compared to other years

12. Most Attacked Targets in India from 1970 – 2017: -This chart shows that in India, there have been 1,757 attacks targeting private citizens and property, resulting in 4,730 kills

13. Number of Attacks each year in India: - This chart shows the number of attacks that happened in India each year, broken down by all types of attacks

14. Indian States with the most Number of Terrorism Attacks: This chart shows which state has been most affected by terrorism, with Jammu & Kashmir being the most impacted state in India, experiencing 946 attacks

15. Total Damage (1970 – 2017) Vs Terrorist Attack Type of India: - This Chart Show in India for Which Attack how many Kills and Damage Happened in India and Armed Assaults there are 7227 deaths and 54.06% Damage happened in India

The solution to Business Objective: -

1. **Data Analysis and Pattern Identification:**
   - Analyse Historical Data: Use the Global Terrorism dataset to examine past terrorist incidents, focusing on patterns, frequencies, and locations of attacks.
   - Identify Vulnerable Regions and Targets: Use statistical and machine learning techniques to pinpoint regions and types of targets that have historically been more prone to attacks.

2. **Predictive Modelling:**
   - Select Algorithms: Implement machine learning algorithms such as decision trees, random forests, and neural networks to build predictive models.
   - Develop Models: Train these models on historical data to forecast potential future hotspots and types of attacks.
   - Generate Risk Scores: Use the models to create risk scores for various regions and targets, highlighting areas with higher potential for future attacks.

3. **Risk Management Strategy Development:**
   - Prioritize Risk Management: Based on the risk scores, develop and prioritize strategies for managing risk, including enhanced security protocols, insurance coverage, and contingency plans.
   - Implement Strategies: Apply the strategies in high-risk areas to mitigate the impact of potential attacks.

4. **Monitoring and Assessment:**
   - Track Effectiveness: Continuously monitor and assess the effectiveness of the implemented risk management strategies using updated data from the Global Terrorism dataset.
   - Adjust Strategies: Make necessary adjustments to the risk management strategies based on new data and insights to improve effectiveness.

5. **Proactive Risk Management:**
   - Leverage Insights: Use insights from the dataset and predictive models to proactively manage and reduce exposure to terrorism-related risks.
   - Reduce Impact: Aim to minimize the impact of terrorism on business operations and human lives by being prepared and responsive to emerging threats.

   ➢ By following these steps, you can effectively utilize predictive modeling to enhance your risk management strategies and better protect against terrorism-related risks.

Conclusion

The data is wrangled and the data visualization is done which has brought different conclusions on global terrorism.

1. **Global Nature of Terrorism:**
   - Terrorism is global. People from every hemisphere region are encountering terrorism. It is not confined to any particular country and area.

2. **Increase in Terrorist Activities:**
   - The entries or rigid activities of terrorism have shown a major leap after 2008, of which the heights were reached in 2014. The years following 2014, especially 2015, and 2016, and 2017 are comparatively high in countries like Iraq, Pakistan, and Afghanistan.

3. **Country – Specific Trends:**
   - Over the years, between 1970-2017, Iraq, Pakistan, and Afghanistan have hoarded the peak in the number of attacks. Terrorism from the Taliban became very contributory to the rate of terrorism, especially from 2011-2017, as there was a massive increase in the number of attacks in comparison to the past decades.

4. **Attack Types and Impact:**
   - Bombings and armed assaults are the most detrimental and deadliest form of attacks, comprising the highest percentage share of the overall destruction and fatalities.

5. **Target Patterns:**
   - The major targets of terrorist activities are the general public and government institutions, including the military, police, and all other government organizations. This is the kind of pattern that can very well be seen in India too.

6. Regional Analysis:

- The maximum affected areas are the Middle East, North Africa, and South Asia. The top 10 terrorist-affected states cumulatively in India contribute 31% of the total populace, while they have 38% of the attacks. Ironically, statistically, Jammu & Kashmir, Manipur, Assam, Meghalaya, and Jharkhand only have a 6.78% percentage of population share; still, these states face a much higher share of attacks.

7. Historical Context:

- Indeed, there were maximum numbers of attacks in the last four decades between the years 2011 and 2017. Of all the attacks, in the year group 1991-2000, it is less than a thousand.

Overall, these findings underline the critical importance of targeted risk management strategies and interventions regarding dealing with and mitigating the impacts of terrorism across the world and regions.

Future Solutions:

From careful analysis and insights drawn from this dataset on Global Terrorism, the following shall be the measures to be taken to address and mitigate the impact of terrorism:

1. Enhanced Predictive Modelling

- Develop advanced models.: Continue to develop predictive models using machine learning algorithms over and over to enhance the preciseness of the hot spots for terrorist activities and trends. Include real-time data for accuracy and to ensure responsiveness.
- Regular Updating: Predictive models need to be up to date with new data to fine-tune the prediction based on continuously changing behavioral patterns and emerging threats.

2. Targeted Risk Management:

- Prioritize High-Risk Areas: Risk scores derived from predictive models should be applied in prioritizing security measures and resource allocations in high-risk regions and to high-value targets.
- All-Round Security Protocols: Strengthen the security protocols with surveillance, intelligence gathering, and reaction capabilities in high-risk areas identified.

3. Regional and Local Strategies:

- Tailored Intervention: Develop and communicate strategies specific to the region to counter the different threats and vulnerabilities of various regions, especially regions with a higher incidence of incidents attributed to terrorists, such as the Middle East, North Africa, and South Asia.
- Community Engagement: Engage local communities in counter-terrorism by creating awareness and encouraging cooperation with security agencies.

4. Strengthen International Cooperation:

- Collaborative Efforts: Foster collaborative efforts of international cooperation by governments, intelligence agencies, and security organizations in sharing information and coordinating responses to terrorism.
- Global Initiatives: Engage in and move hand in hand with world initiatives against international terrorism and treaties that are combating terrorism globally.

5. Prevention and Education:

- Programs for Countering Radicalization: Avail de-radicalization and disengagement programs directly related to the causes of radicalization and violent extremism, more so toward the at-risk populace.
- Education Campaigns: Implement education programs to highlight the key drivers of terrorism and offer different thought processes for potential targets.

6. Monitor and Adjust:

- Continuous Evaluation: Periodically evaluate the developed risk management plans with different methods and update them when necessary, because of lessons learned and variations in threats.
- Feedback Mechanisms: Put in place feedback mechanisms to, at the end of the day, as the success level of interventions given and remedial adjustments made to the interventions for increased overall effectiveness.

7. Invest in Technology and Innovation

- Adopt New Technologies: Invest in new state-of-the-art technologies, including artificial intelligence and cybersecurity tools, to increase monitoring and detection abilities.
- Innovate Security Solutions: Find solutions in security with an edge to keep you a pace ahead of terrorist dynamics in tactics and methods.

These preparations, therefore, will be valued on the extent to which they control and minimize the related risks of terrorism, thus reducing the negative impacts it causes to societies in general and improving their overall safety and security.