Capstone Project Submission

Team Member's Name, Email and Contribution:

Contributor Roles:

1. Yash Patil (yashpatil454@gmail.com)

1. Data Wrangling
   a. Global Terrorism Dataset
   b. Restructuring the features.
2. Handling Null Values
3. Feature Extraction for Data Visualization.
4. Data Pre-Processing
5. Top Affected Regions and Countries.
6. Frequently Targeted Organizations.
7. Most damages incurred by Countries.
8. Casualties occurred by different types of weapons.

2. Mohd Zahid Ansari (mohdzahidansari3@gmail.com)

1. Data Wrangling
   a. Global Terrorism Dataset
   b. Filter Indian Dataset
2. Feature Extraction for Data Visualization.
3. Handling Null Values.
4. Data Pre-Processing.
5. Number of Terrorist Attacks Every Year From 1970 to 2017.
6. Mostly Used Weapon Types by Terrorist Groups.
7. Most Occurrence Terrorist Attacks Cities of India.
8. Most Active Terrorist Groups in India.
9. Number Of Attacks Worldwide Every Year by Top 10 Active Terrorist Group.

3. Pritam Pawar (pawarprit2215@gmail.com)

1. Data Wrangling.
   a. Global Terrorism Dataset.
   b. Preprocessing and cleaning of data.
2. Feature extraction for data visualization.
3. Terrorism by Countries & Regions.
4. Terrorism Analysis on India.
   a. Top 5 cities with most terrorism occurrences.
   b. Suicide rate and no. of victims over time.
   c. Weapons used for attacks.
5. Attack to kill comparison on top 15 countries.
6. Terrorist Groups with most attacks.

Please paste the GitHub Repo link.

Github Link:

https://github.com/Prit227/EDA1-Global-Terrorism-Analysis.git

Please paste the GDrive link.

GDrive Link:
https://drive.google.com/drive/folders/1CmboydSP7V8eYKJlF-zI3mM69WGz3wPo?usp=sharing

Please write a short summary of your Capstone project and its components. Describe the problem statement, your approaches and your conclusions. (200-400 words)

The Global Terrorism Database (GTD) is an open-source database including information on terrorist attacks around the world from 1970 through 2017. The GTD includes systematic data on domestic as well as international terrorist incidents that have occurred during this time period and now includes more than 180,000 attacks. The database is maintained by researchers at the National Consortium for the Study of Terrorism and Responses to Terrorism (START), headquartered at the University of Maryland.

As the first step for handling such huge dataset we started with data cleaning and data preprocessing. Performed data wrangling on dataset to get insights and understanding from the features for visualizing the data comprehensively.

We divided this analysis on 4 major aspects with respect to features in datasets and they are, Regions / Countries, Weapon Type, Terrorist Groups and Targeted Organizations.

In Region and Countries visualization on the basis of coordinates given in the form of latitude and longitude in the datasets, we plotted the points on world map to see which region and countries is highly prone to terrorist attacks. We also did specific analysis on India which includes top 5 cities of most terrorism occurrences and also various other aspects and in weapon type we visualized most often used weapon types with respect to terrorist attacks. We also did a visualization on top 10 highly active terrorist groups.

The goal of this project was to understand and interpret the nature of terrorism efficiently and comprehensively with the use of data visualizations. A visualization which can be used to calculate the total number of attacks, total kill counts and location based on the selected region and year provides interactive interface to explore this dataset. Users can understand various patterns, trends and correlation in terrorism through visual interpretation and its provided explanation.

This work can be used by curious civilians, security related policy-makers, international organizations hosting worldwide events, foreign investors and academic researchers for the purpose of understanding terrorism and its nature.