Capstone Project

Global Terrorism Analysis

Project Type - EDA
Contribution – Individual
Presented By –Mayuri Patil

Content –

1. Introduction.

2. Problem Statement.

3. Dataset Preparation.

4. Data Summary.

5. Analysis and visualization of data.

6. Challenge Faced.

7. Conclusion.

AI

AI

Introduction

Definition of Terrorism :-

"The calculated use of unlawful violence or threat of unlawful violence to inculcate fear; intended to coerce or to intimidate governments or societies in the pursuit of goals that are generally political, religious, or ideological"

• The objective is to perform Exploratory Data Analysis on global terrorism dataset to find out the hot zone of terrorism

• Exploratory data analysis is nothing but analyzing the given data and finding the trends, patterns and making some
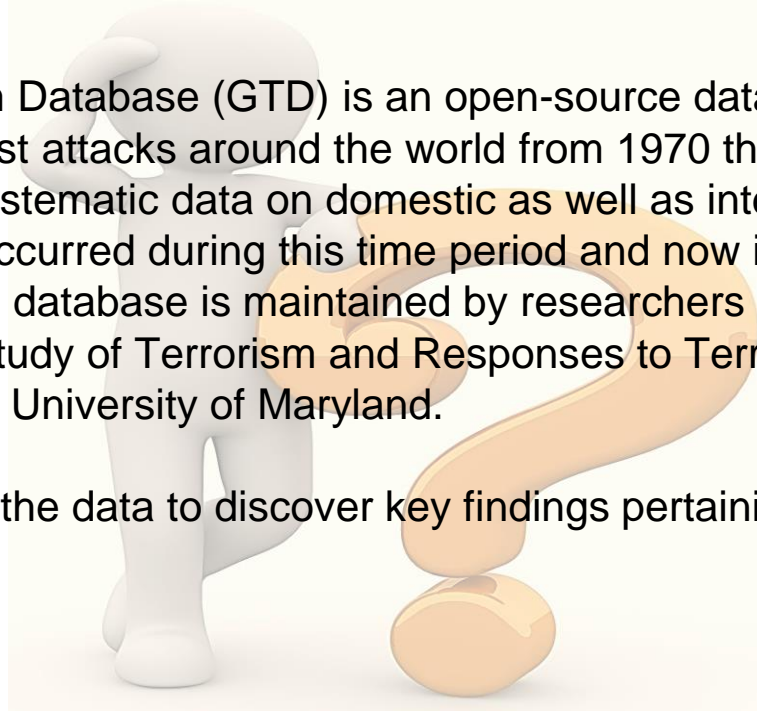
STOP TERRORISM!

Problem statement

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.

Explore and analyze the data to discover key findings pertaining to terrorist activities

AI

Dataset Preparation

- *Loading the dataset*: Load the Global Terrorism Dataset by mounting the drive.

- *Import Libraries*: NumPy, Pandas, Seaborn and Matplotlib

- *Data cleaning*: Finding null values, Replacing the null value with zero, Finding duplicate values, Creating the copy of main dataset etc.

- *Exploratory Data Analysis*: Analyzing the data sets to summarize their main characteristics using statistical graphics and data visualizations method.
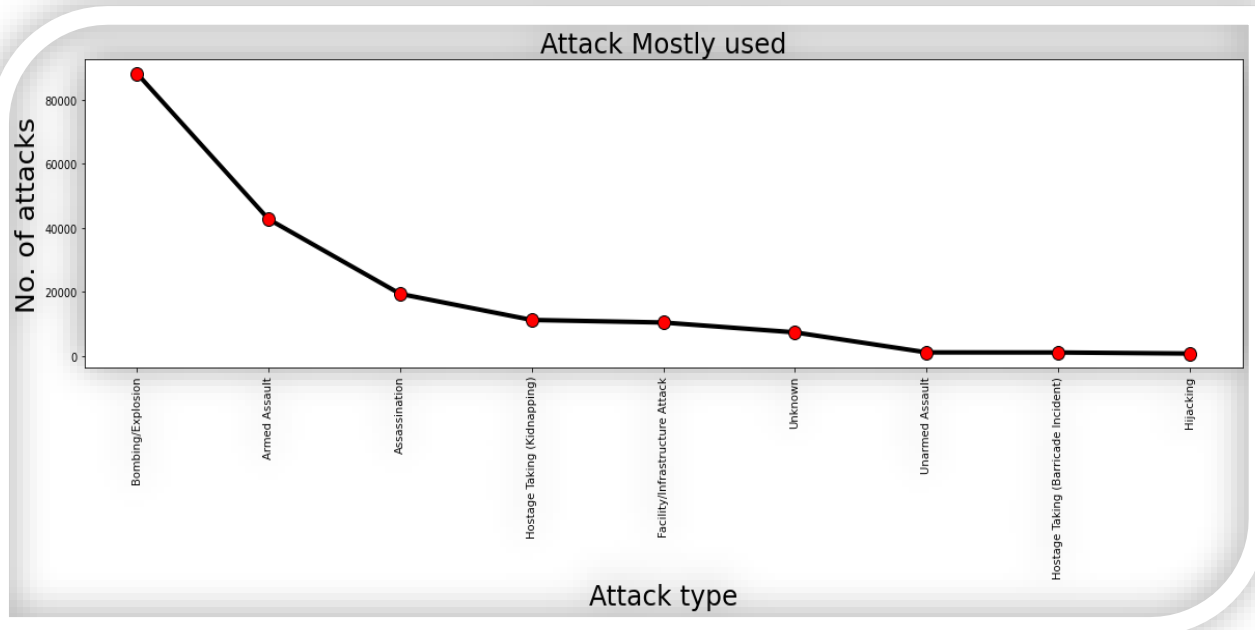
Data summary

Year	Year of Terrorist Attack
Month	Month of Terrorist Attack
Day	On which Day Terrorist Attack is happened
Latitude	Y Co-ordinates of Terrorist Attack point
Longitude	X Co-ordinate of Terrorist Attack point
Region	Region of Terrorist Attack
Country	Country of Terrorist Attack
State	State of Terrorist Attack
city	City in which terrorist attack happen

Attack_Type	Type of Terrorist Attack
Killed	Number of people killed in the Terrorist Attack
Gang_Name	Name of Terrorist Organization
Wounded	Number of people Injured in the Terrorist Attack
Main_Target	Main target of the Terrorist Attack
Sub_Target	Sub target of Terrorist Attack
Weopan_type	Weapon used in the Terrorist Attack
Motive	Motive of Terrorist Attack
Nationality	Nationality of Terrorist Organization
Casualties	It is the Sum of Number of people killed and Number of people Injured in the Terrorist Attack

Analysis and visualization of data

AI

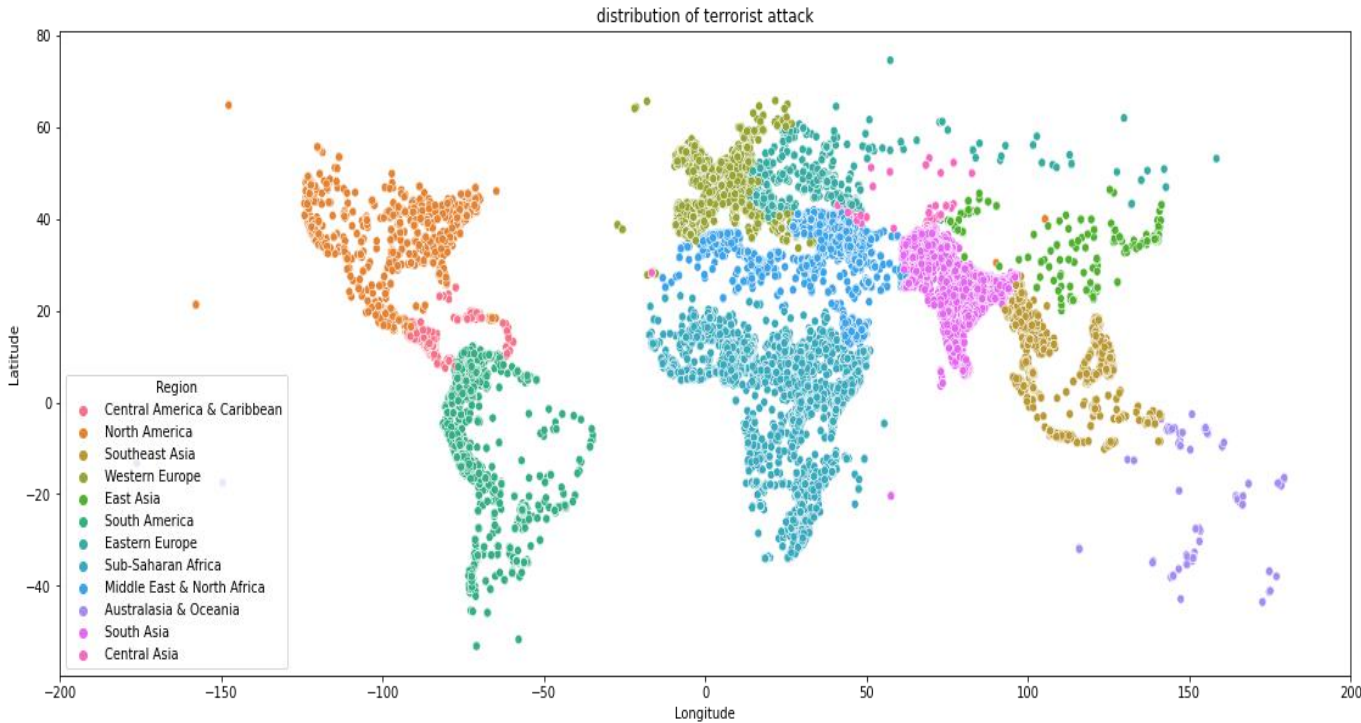## 1.Top 10 attack type used by the terrorist organization

Attack Mostly used

No. of attacks

Attack type

Observation –
1.10-20% of the
Attack happened
with Armed
Assault.

2.hijacking is the
less used Attack
Type used by
terrorists.
3.Remaining other
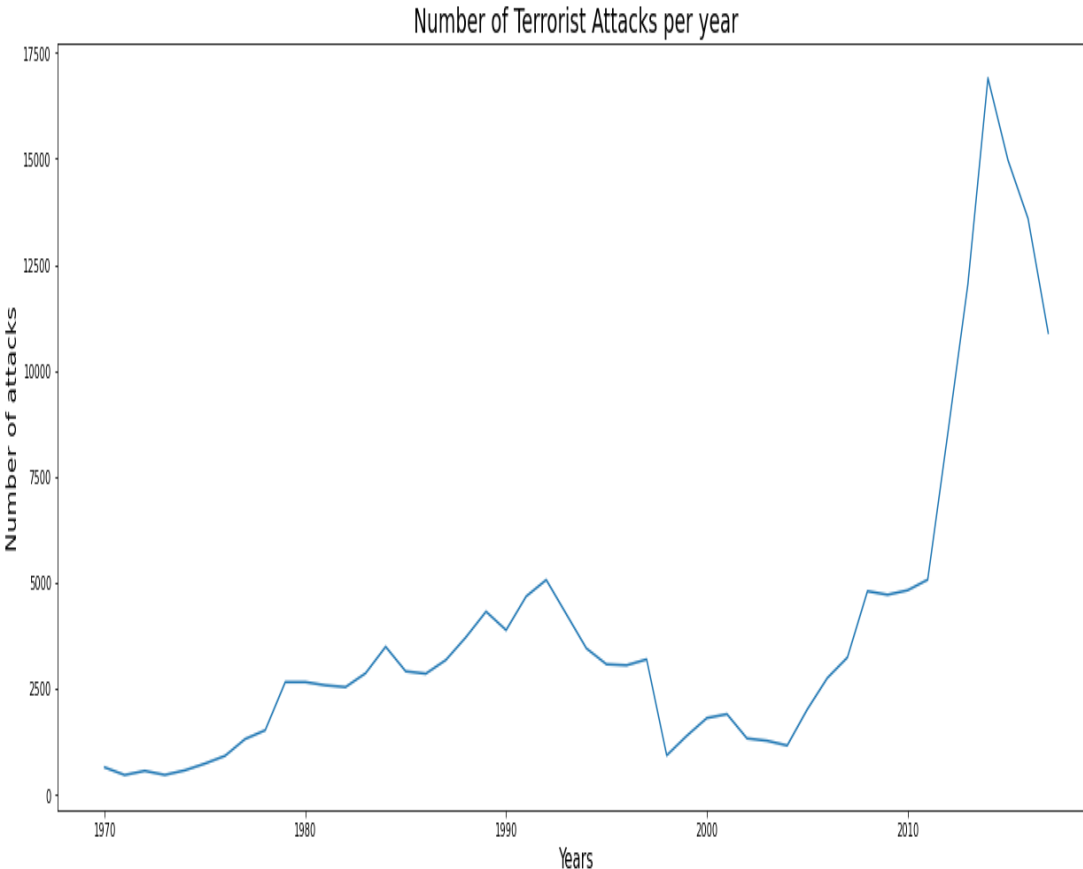**are in between 0-**
6%

2.Most affected region of terrorism.

distribution of terrorist attack

Observation:-
1.From the scatter plot we can say that Middle East & North Africa is the most affected region
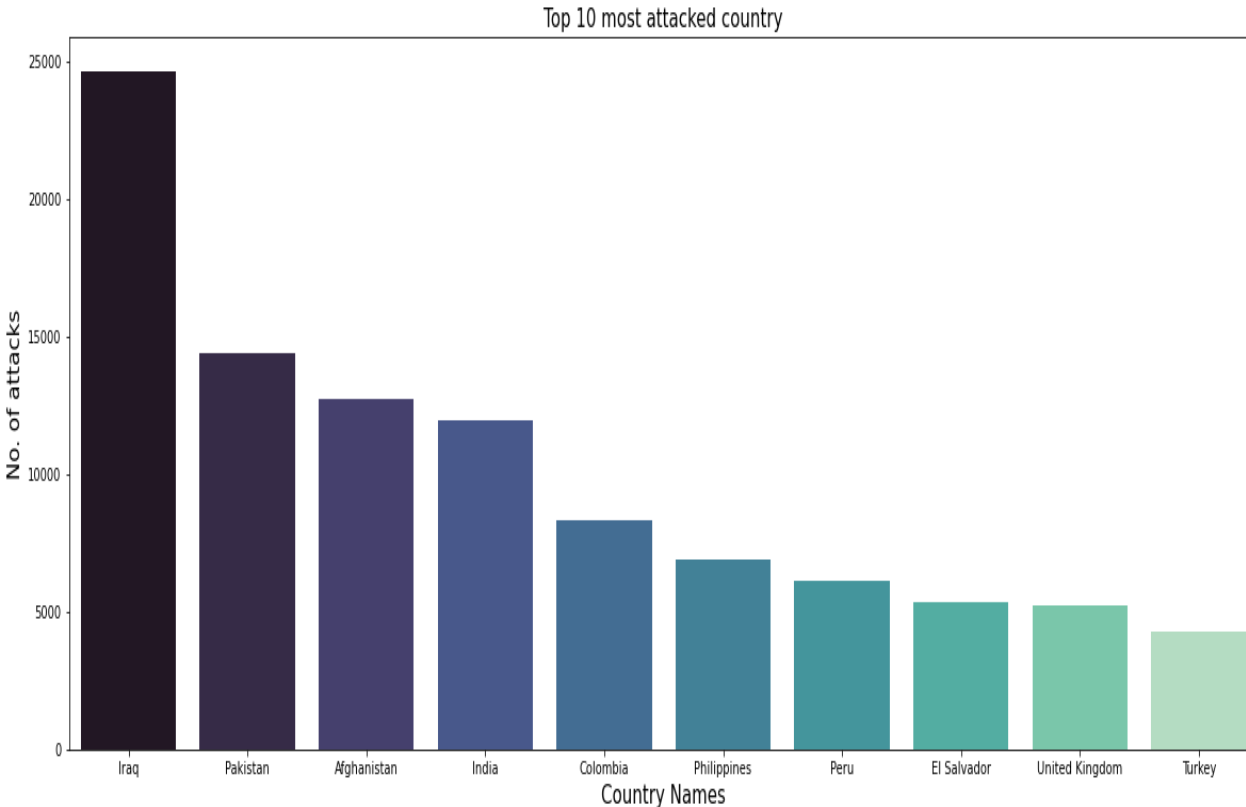2.Australasia & Oceania is the most safest region because there is less number of Terrorism compare to other region.

3. Per year growth of terrorist attacks

Number of Terrorist Attacks per year

observation-

1. From the above graph we can say that After 2004 there is a large growth recorded in terrorist attack.
2. Maximum Number of the attacks were recorded in year 2014
3. Minimum number of attacks were recorded in the year 1971
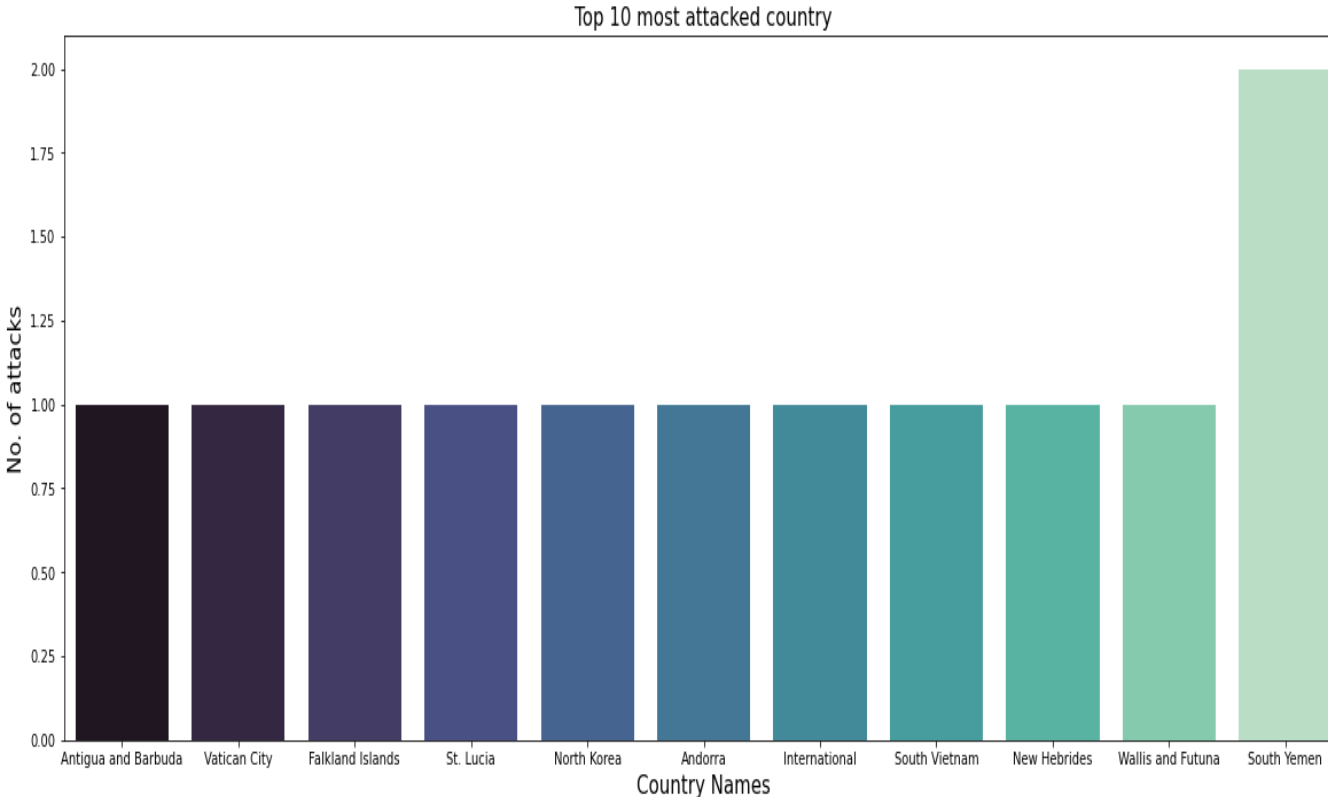
4.Top 10 most attacked country

Top 10 most attacked country

Observation:-
1.Iraq is the most affected country of terrorism which records highest number of terrorism activity in any country.

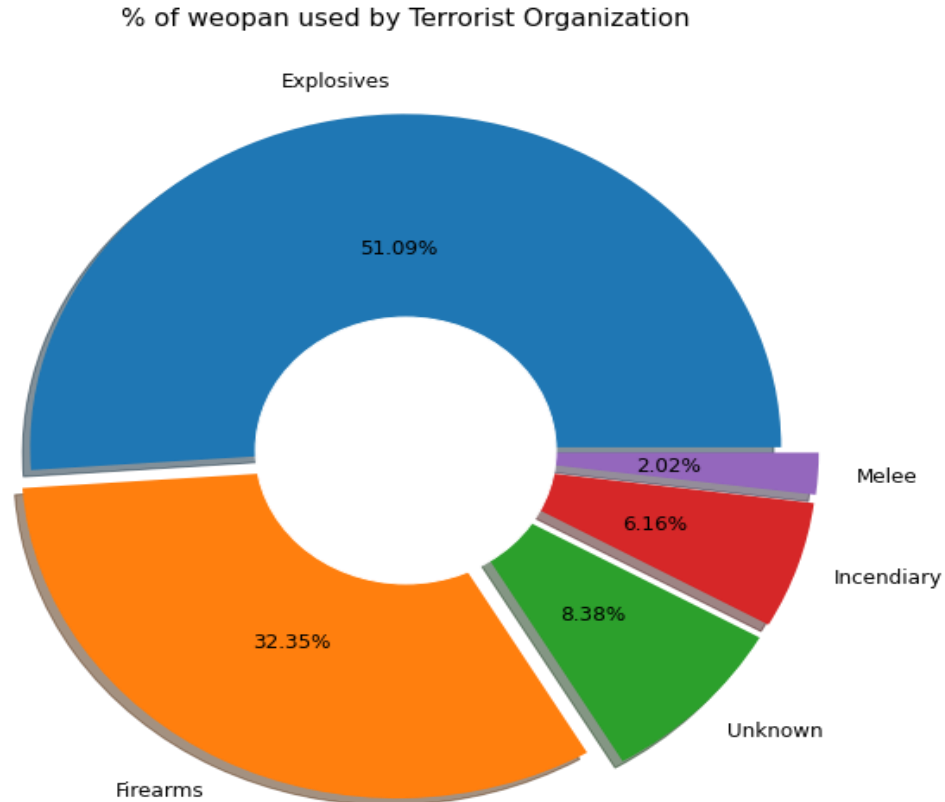**2.India ranked number 4 th terms of most affected country of the terrorist activity**

5.Less attacked country's

Top 10 most attacked country

Observation:-
There are may country's are attacks are less .country like Antigua , Vatican, north Korea ,Andorra etc.

6.which weapon are used by terrorist

% of weopan used by Terrorist Organization

- Explosives — 51.09%
- Firearms — 32.35%
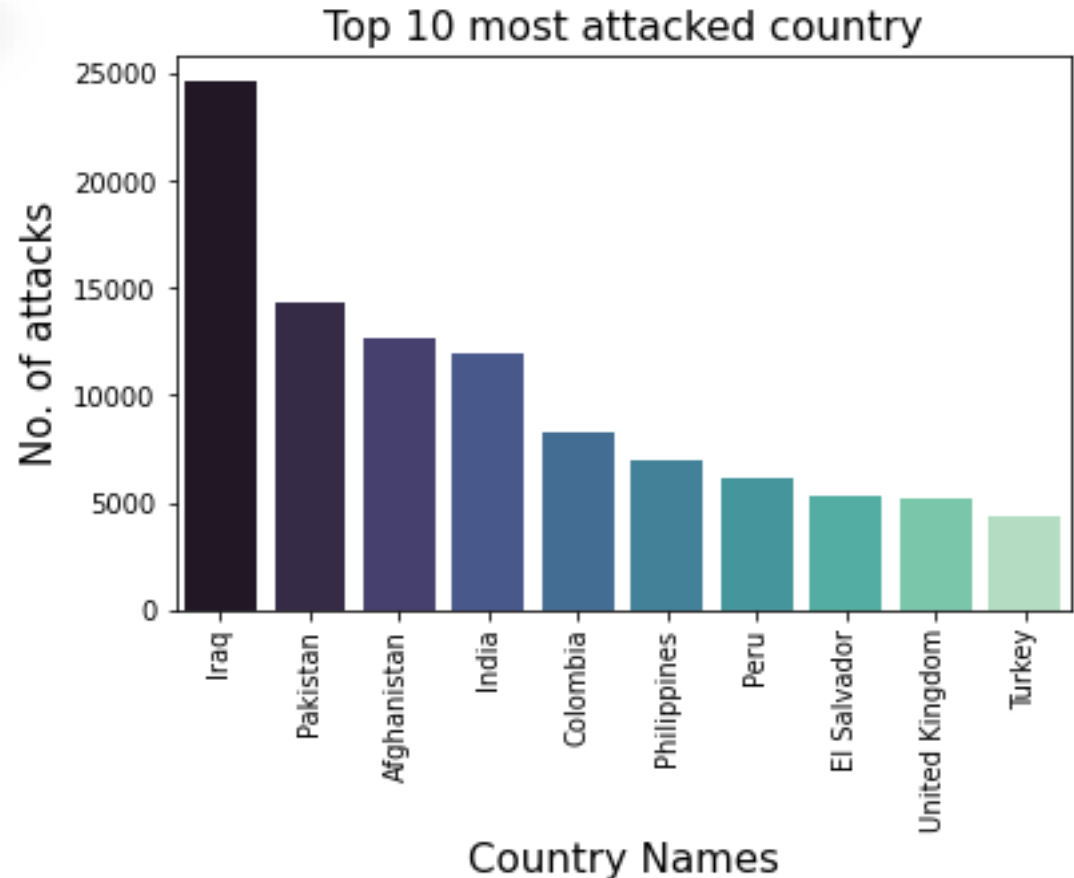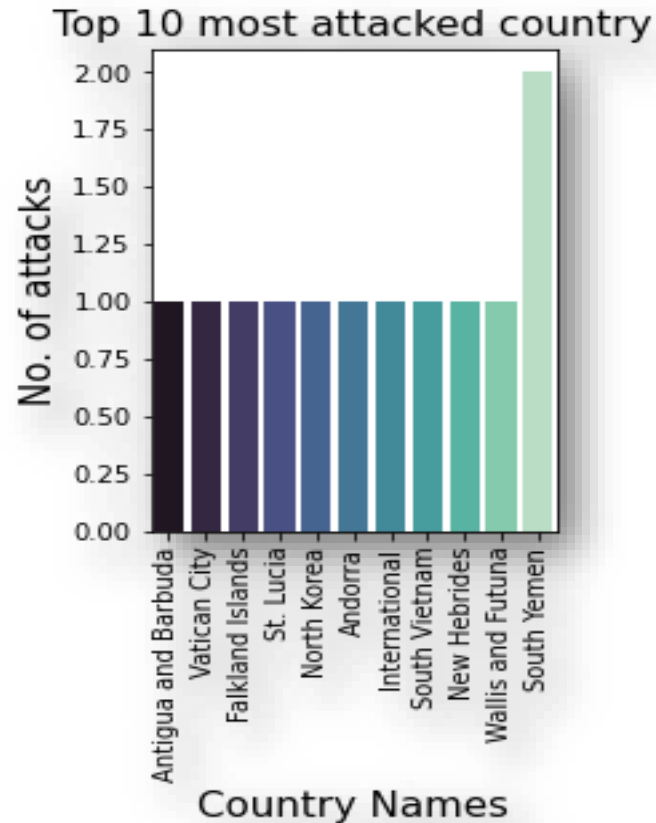- Unknown — 8.38%
- Incendiary — 6.16%
- Melee — 2.02%

Observation:-

1.To get the Percentage of Weapon used by Terrorist Organization we use Pie Chart

2.It seen that explosives were used in around 51.09 % of the attacks, followed by Firearms accounted for 32.35% of the attacks

Overall analysis of attacked country

Top 10 most attacked country

No. of attacks

Country Names

Antigua and Barbuda, Vatican City, Falkland Islands, St. Lucia, North Korea, Andorra, International, South Vietnam, New Hebrides, Wallis and Futuna, South Yemen

Top 10 most attacked country

No. of attacks

Country Names

Iraq, Pakistan, Afghanistan, India, Colombia, Philippines, Peru, El Salvador, United Kingdom, Turkey

<u>Observation</u> :-

1.Here we did the analysis of most affected country of terrorism India.

2.most number of attacks happen in the Shrinagar city of Iraq

3.Communist party of India - Maoist(cpi-Maoist) is the most active terrorist organization in the country which record highest attacks

4.The number of casualties varies per year from 1985 to 2014.

5.Main target of terrorist is private Citizens and Property followed by Police,Government and Business.

Challenges Faced -:

❏ Reading the dataset and comprehending the problem statement.

❏ Examining the business KPIs for app development and devising a solution to the problem.

❏ Handling the error and NaN values in the dataset.

❏ Designing multiple visualizations to summarize the information in the dataset and successfully communicate the results and trends to the reader.

Conclusion's

❑ It was clear that numbers of terrorist attacks were increases from 2002-2004. Most of the attacks were done on year 2014 and Iraq is the most affected country from terrorism because most of the peoples killed in iraq. In Iraq maximum of 1570 peoples killed in single attack. As expected Baghdad is most affected city(and yes this is also called province).

❑ Among all the regions "Middle East & North Africa" has the most number of killed people approx. 1.4 Lakhs followed by "South-Asia" & "Sub-Saharan Africa

❑ "Taliban" is the most powerful, dangerous and the most active gang among all of the gangs, followed by "islamic state of iraq and the levant(isil)" and "shining path(SL)".

❑ The most targeted attacks are on "Private Citizens & Property" which is approximately 40% and 10-20% is the target on "Military", "Police", "Government", "Business".

❑ "It seen that explosives were used in around 51.09% of the attacks, followed by Firearms accounted for 32.35% of the attacks".