Capstone Project-1
EDA on Global Terrorism Data

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Introduction to dataset

Global Terrorism Database

Open-Source

Terrorist activities between 1990 and 2017

Domestic and International Incidents

About the data

Each event has unique event id

Each event(observation/ row) has 135 features

Some of the features: Date, Month, Year, Location, Fatalities, Country, Region

Many of the features are categorical in nature
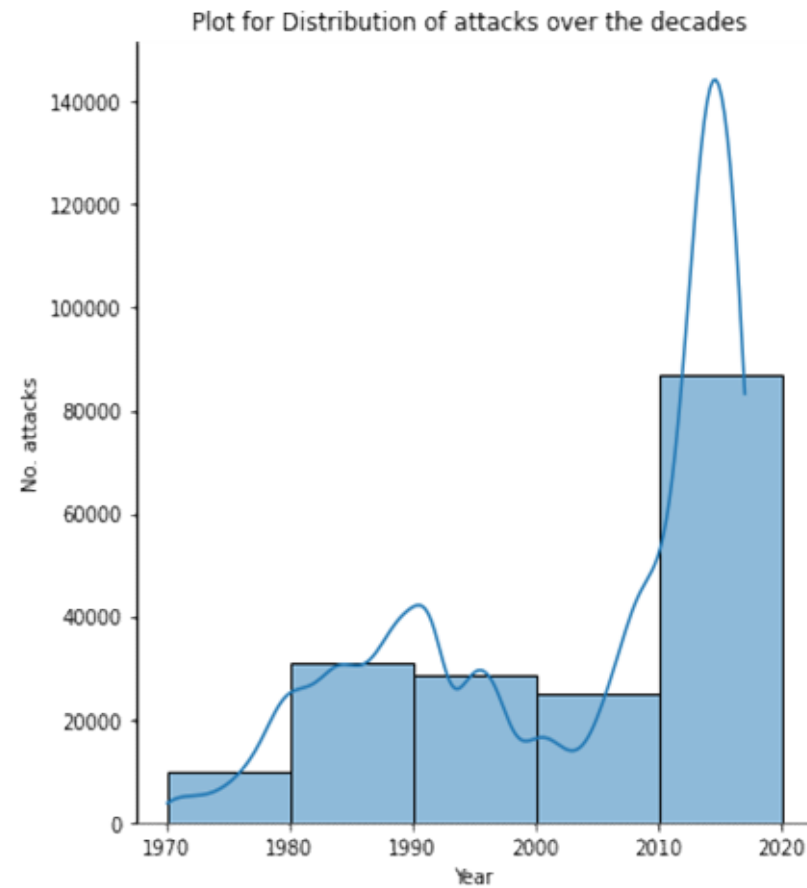
AI

Questions to be answered:

- **What is the growth in number of events over the years/decade?**

- **Which countries are affected with most events?**

- **Which region is more affected?**

- **What is the most used attack type/ weapon type?**

- **Which country suffered most fatalities in all events(or suicide attacks) ?**

Etc.

EDA Begins

Plot for Distribution of attacks over the years
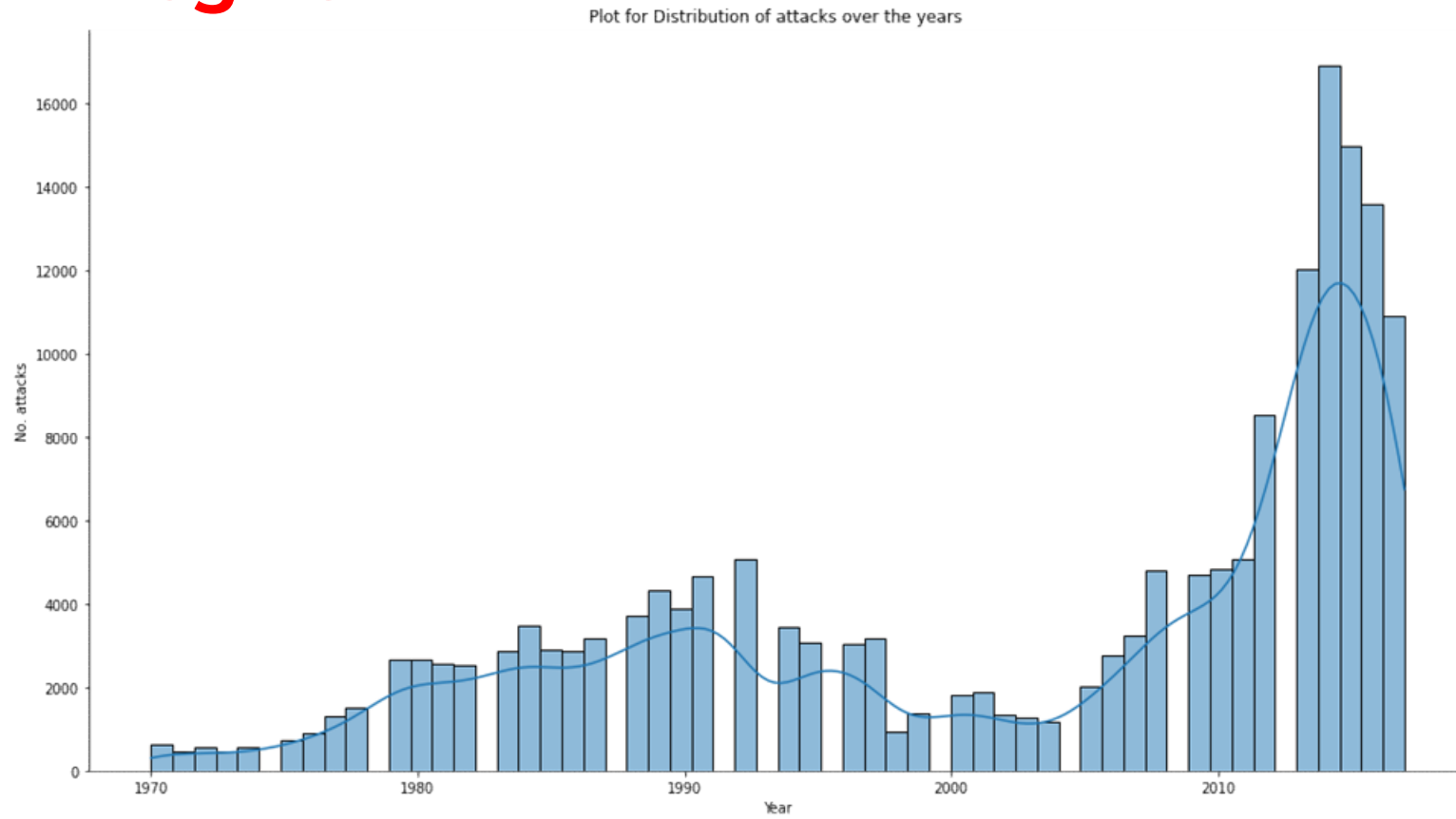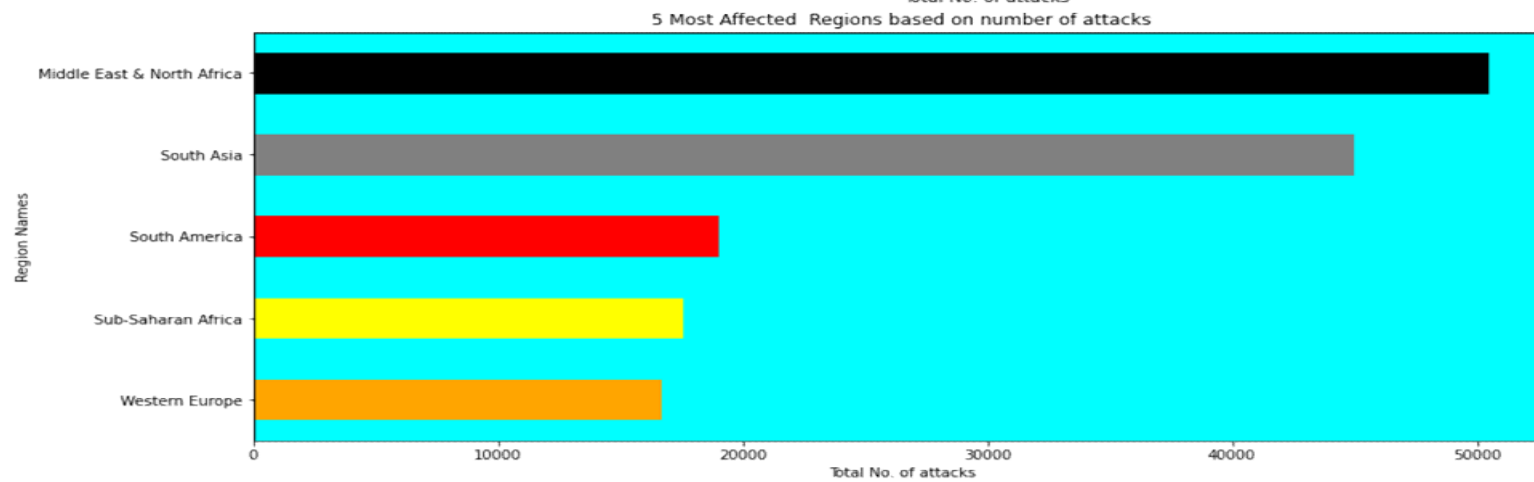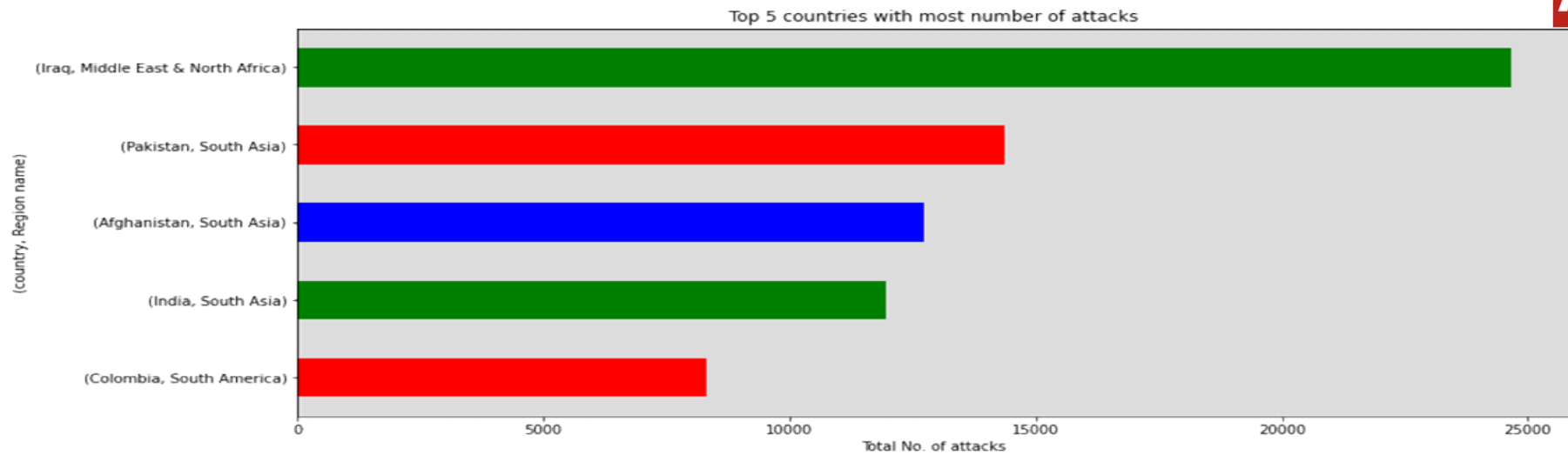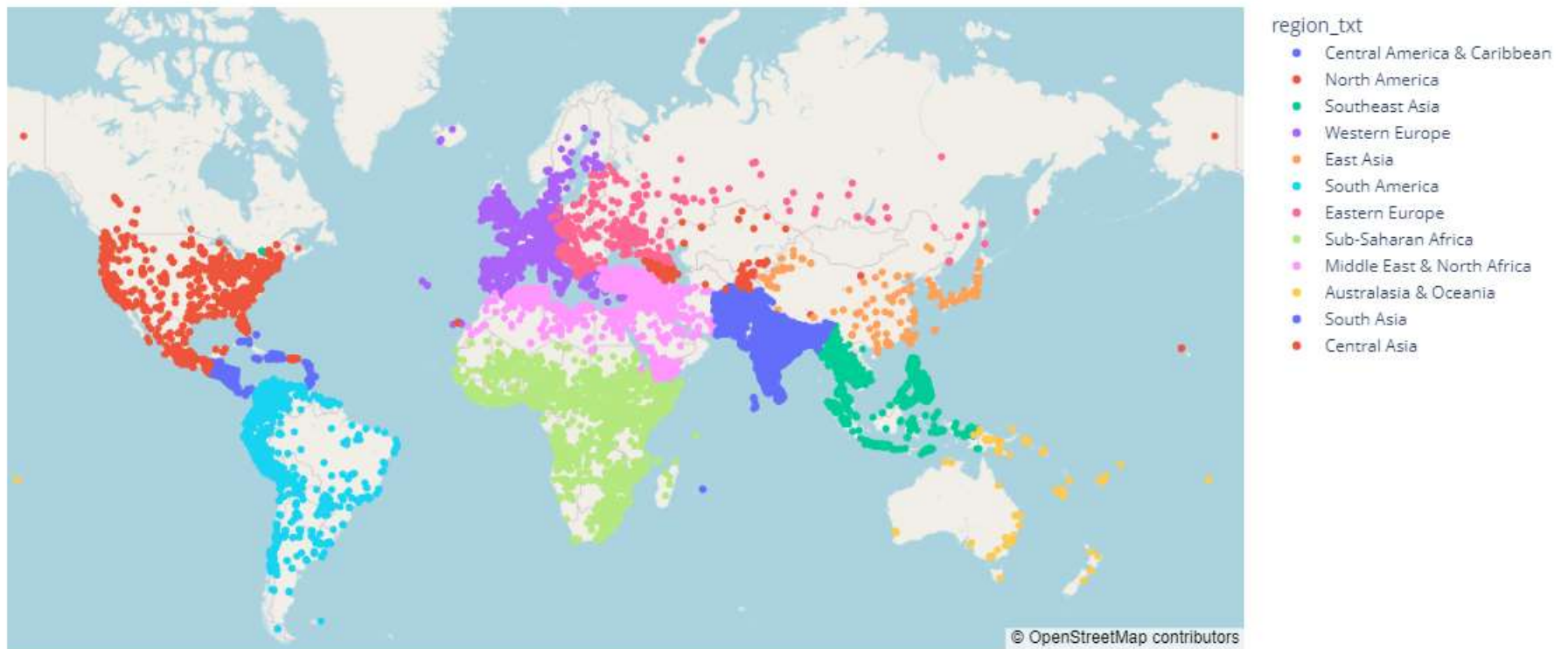
We notice a very high spike in the
decade 2010-2020,before that,
number of attacks every decade
were decreasing gradually.

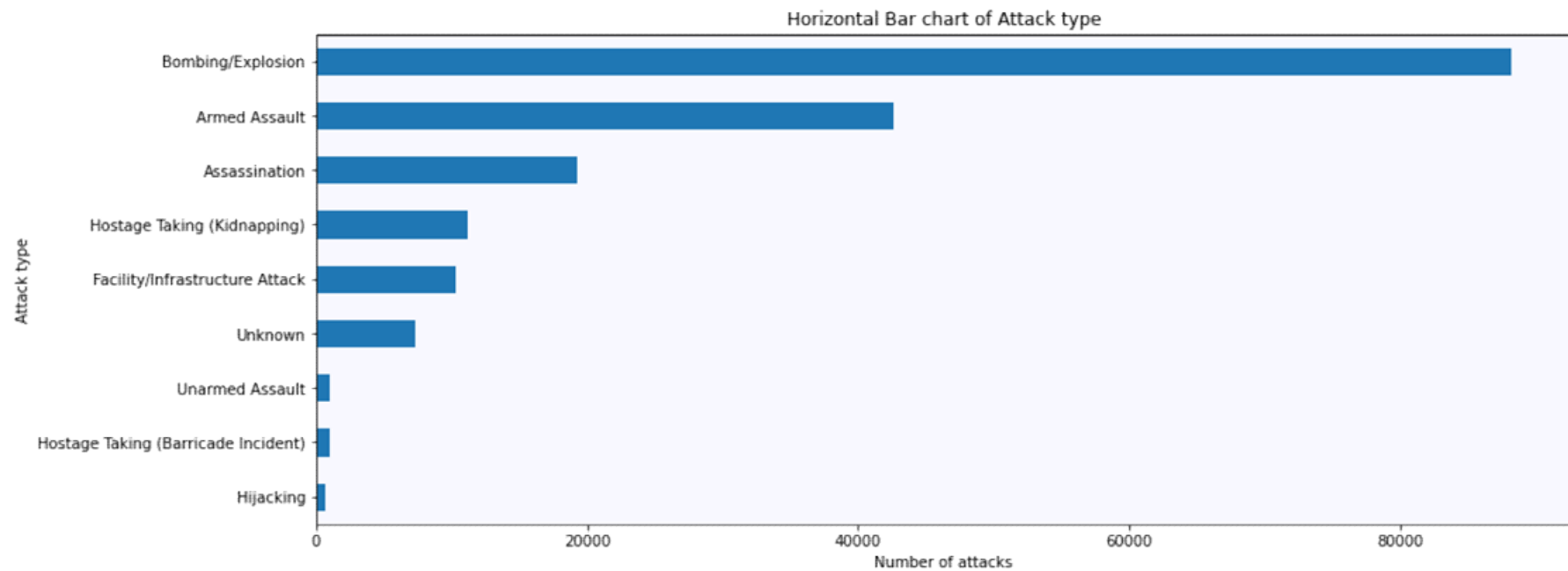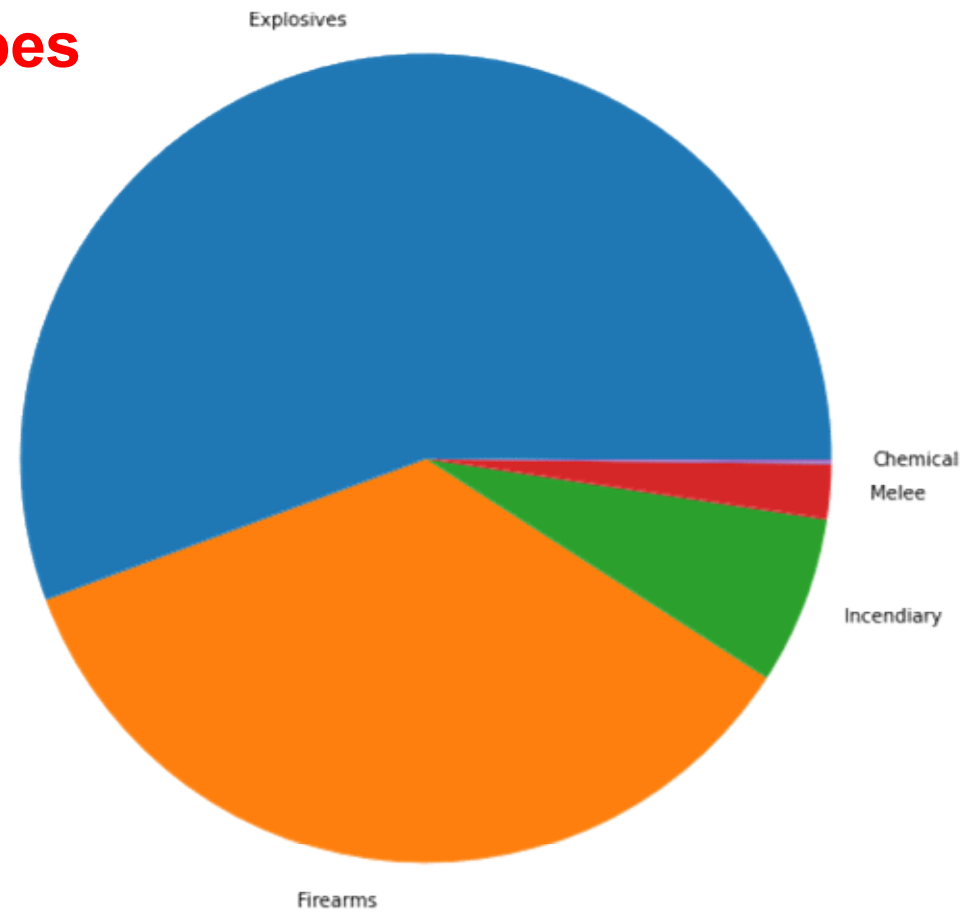Plot for Distribution of attacks over the decades

Top 5 countries with most number of attacks

5 Most Affected Regions based on number of attacks

Geographical Mapping of terrorist events

region_txt

- Central America & Caribbean
- North America
- Southeast Asia
- Western Europe
- East Asia
- South America
- Eastern Europe
- Sub-Saharan Africa
- Middle East & North Africa
- Australasia & Oceania
- South Asia
- Central Asia

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Most used attack types

Horizontal Bar chart of Attack type

Most used weapon types

1. **Explosives**
2. **Firearms**
3. **Incendiary**
4. **Melee**
5. **Chemical**

Pie chart for Top 5 weapon type used

Explosives

Chemical

Melee

Incendiary

Firearms

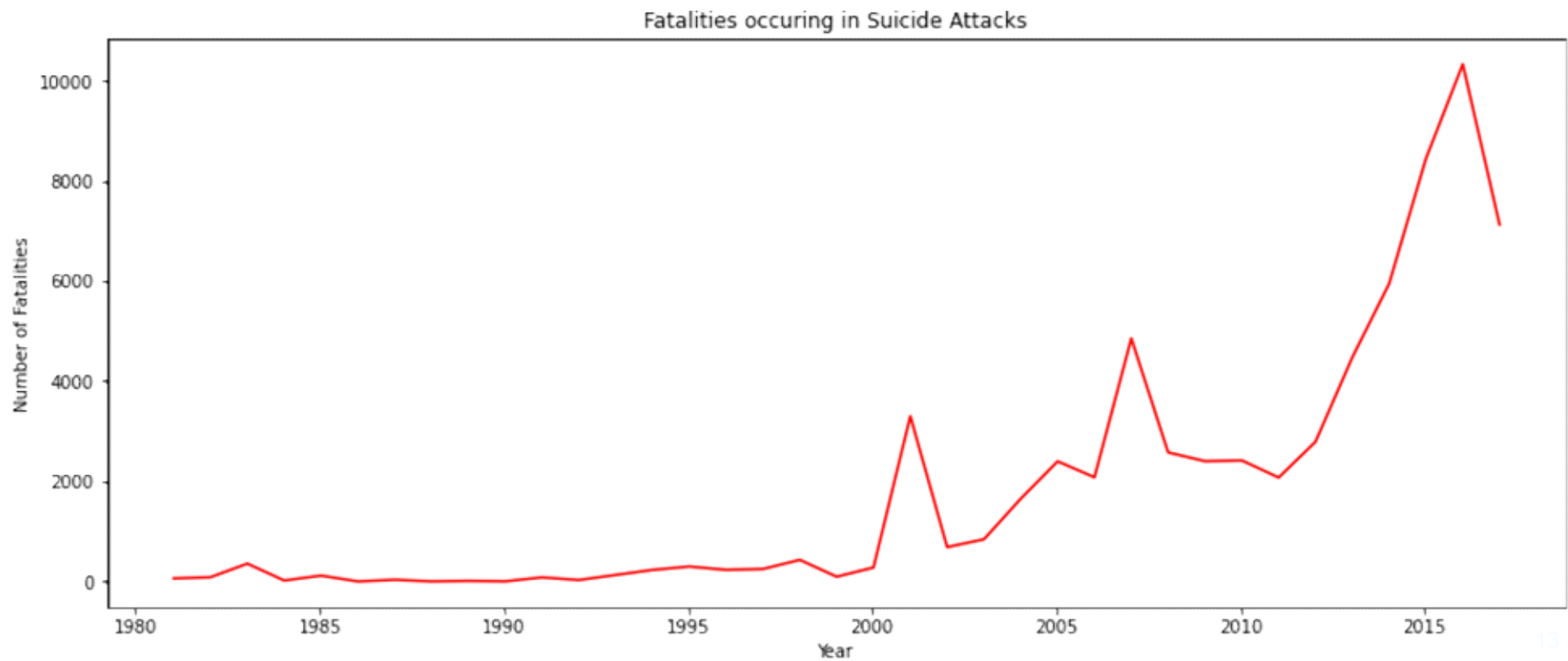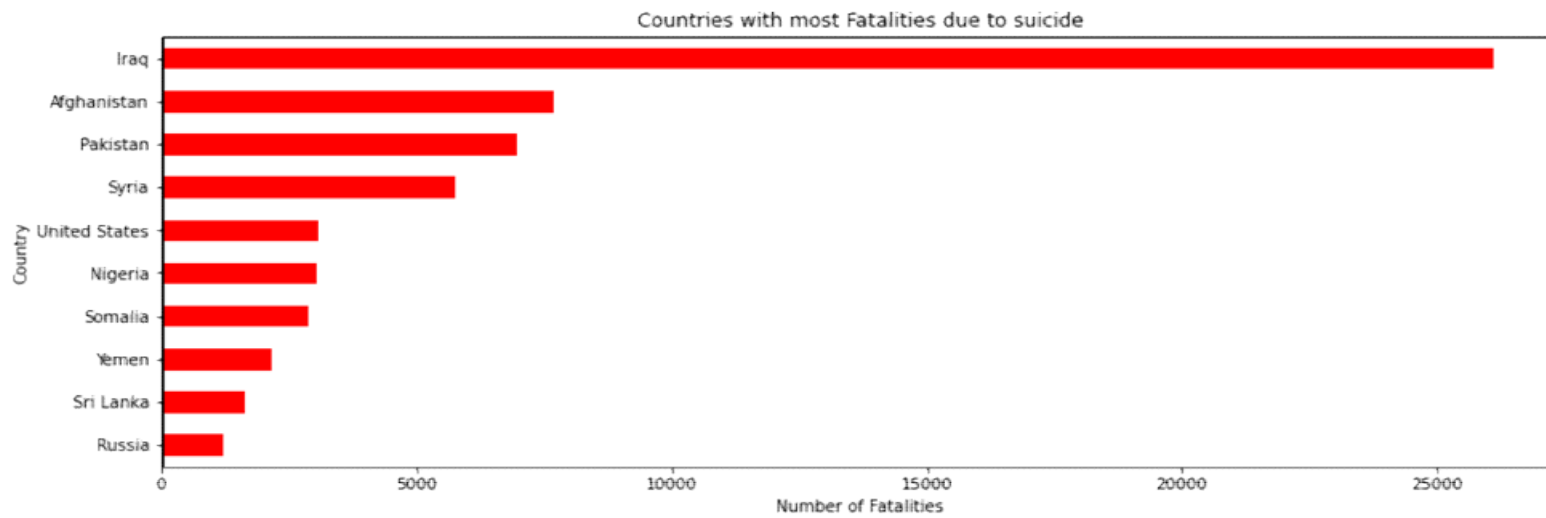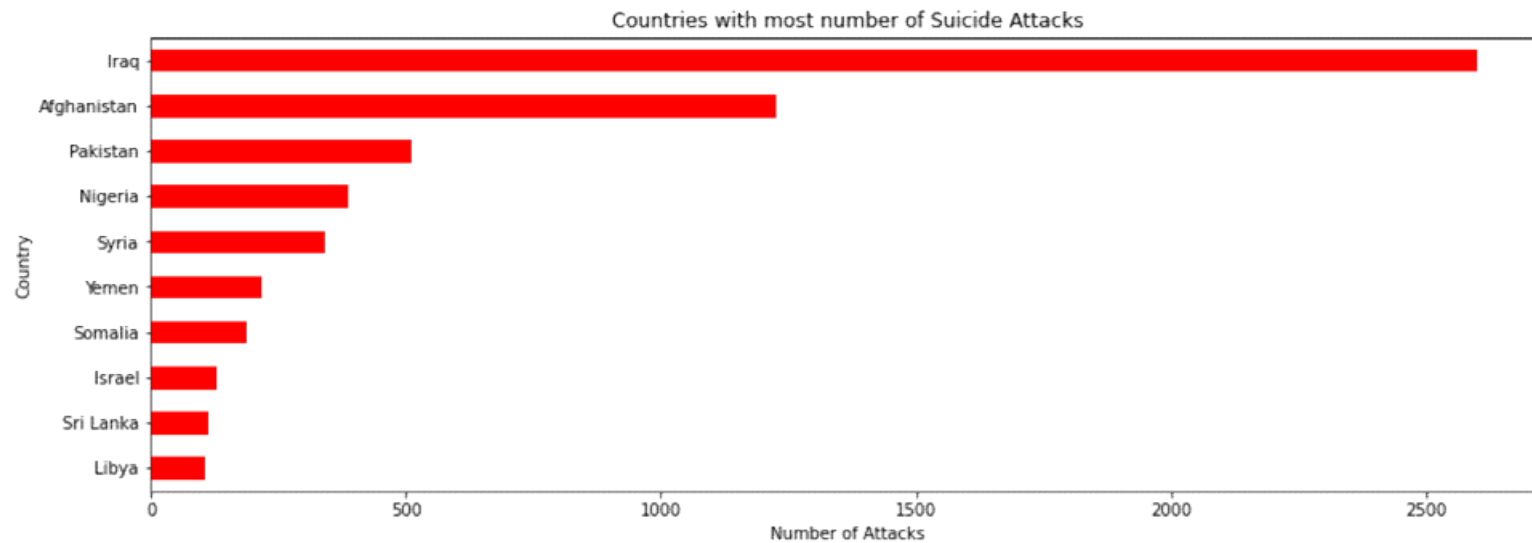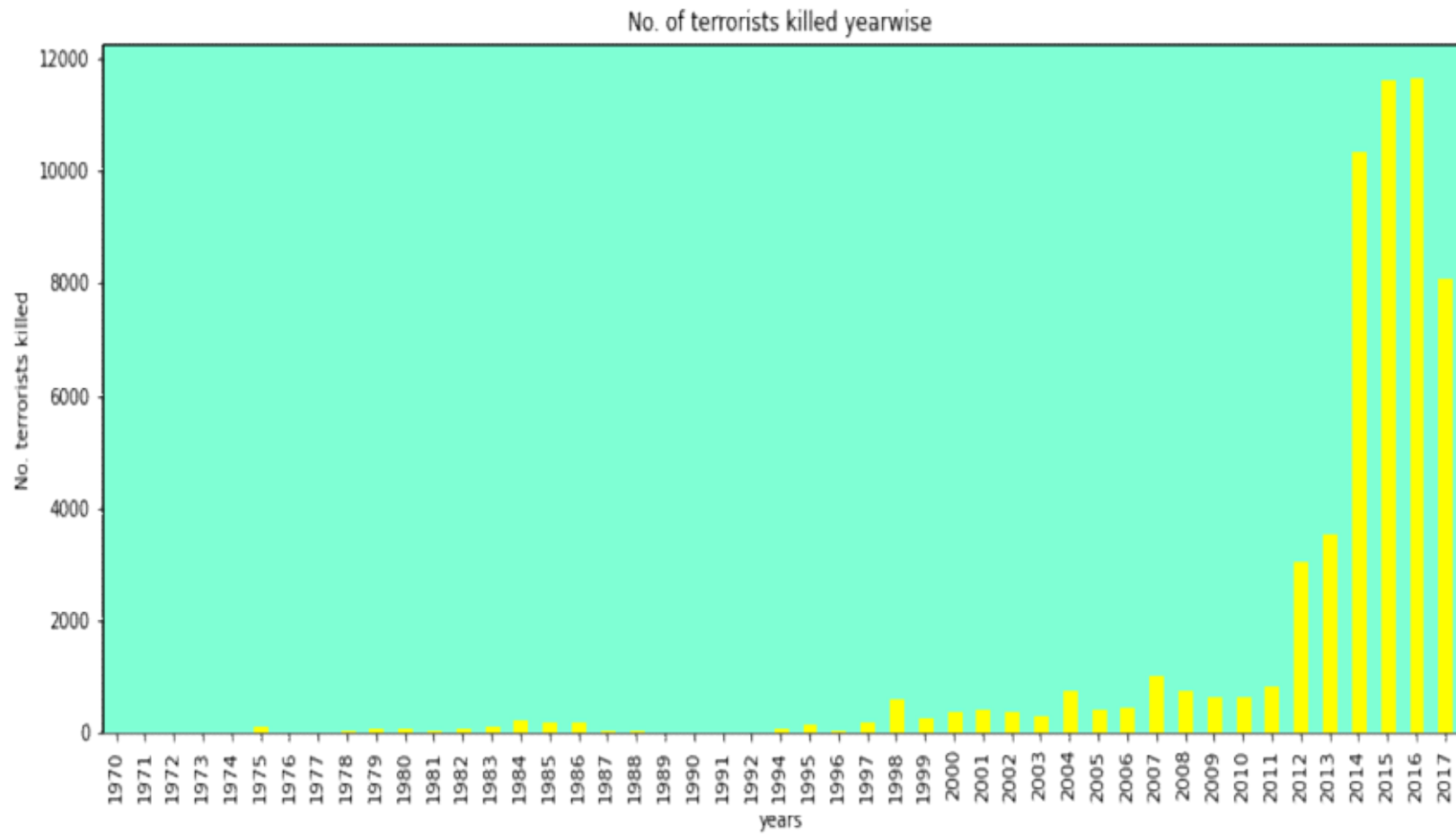Plot for Maximum no. of fatalities happening for a event in a year
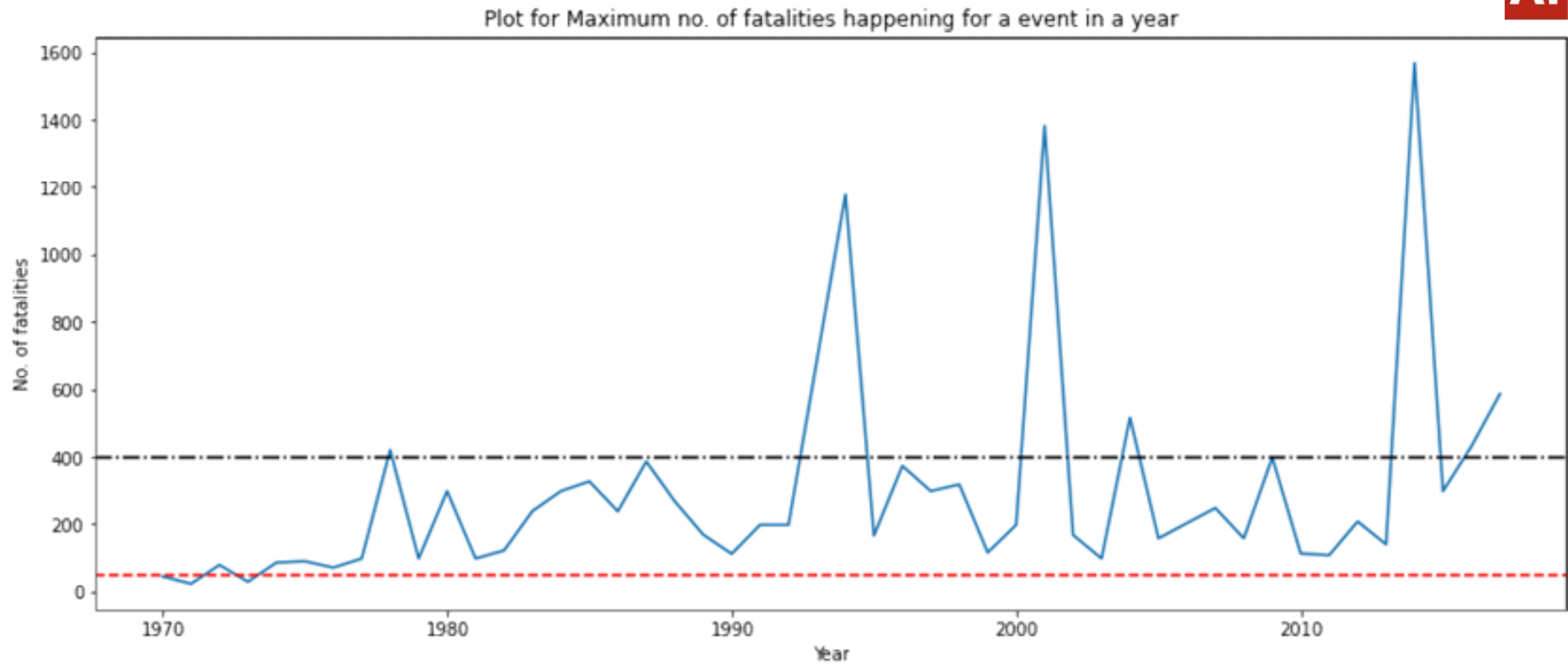
We can observe that for most of the year maximum fatalities lie between 50 and 400. Implying, almost every year there occurs a terrorist activity which takes more than 50 lives.

Total Suicide attacks yearwise

Fatalities due to Suicide Attacks

Fatalities occuring in Suicide Attacks

Countries with most number of Suicide Attacks

Countries with most Fatalities due to suicide

No. of terrorists killed yearwise

Countries with most fatalities

Countries with most terrorist killed

Fatalities and Number of Attacks by Perpetrator Groups
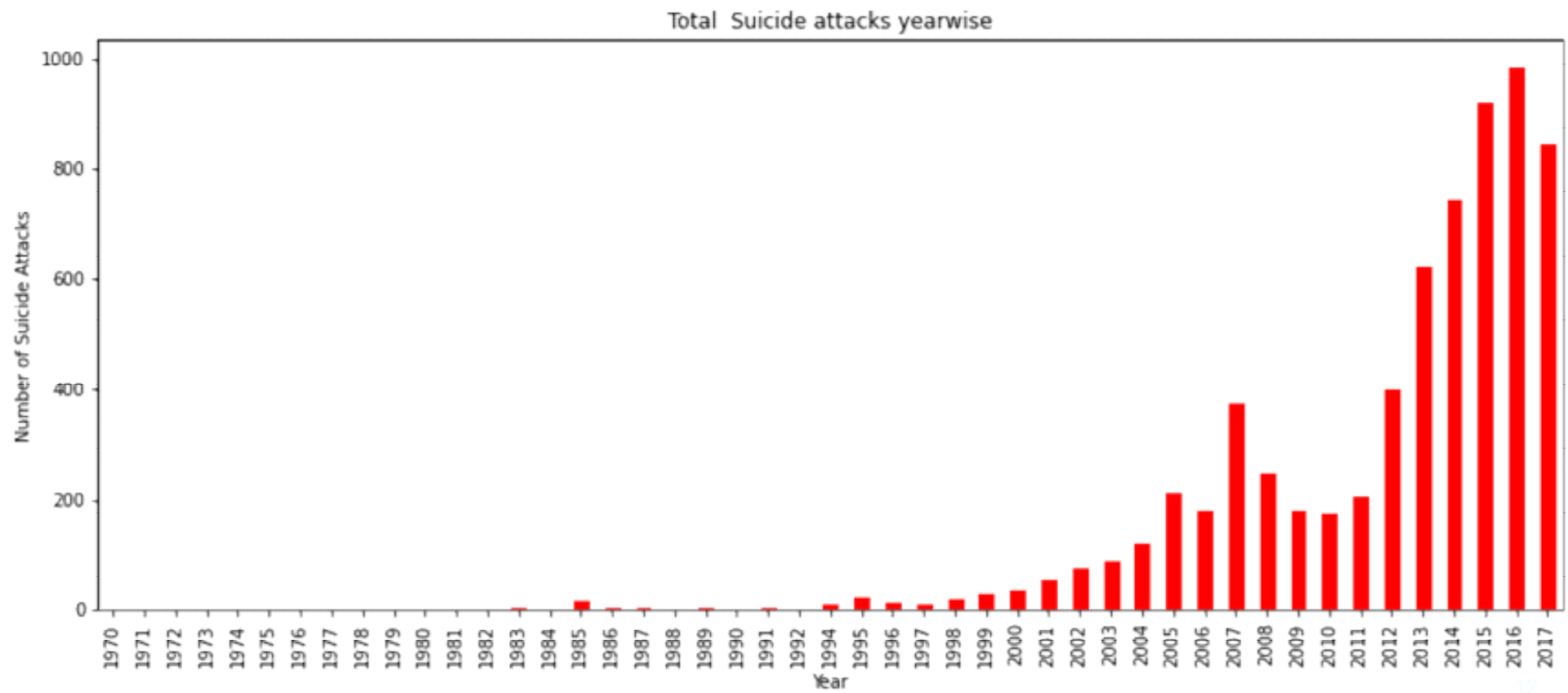
Success rate among top 10 perpetrator groups
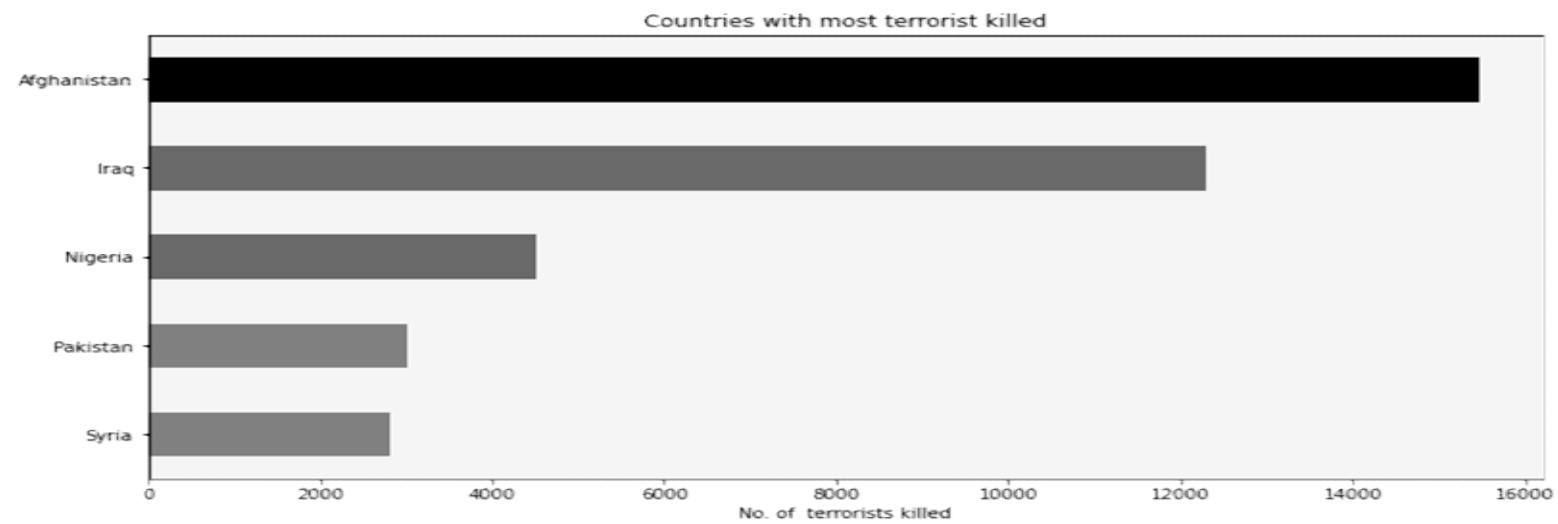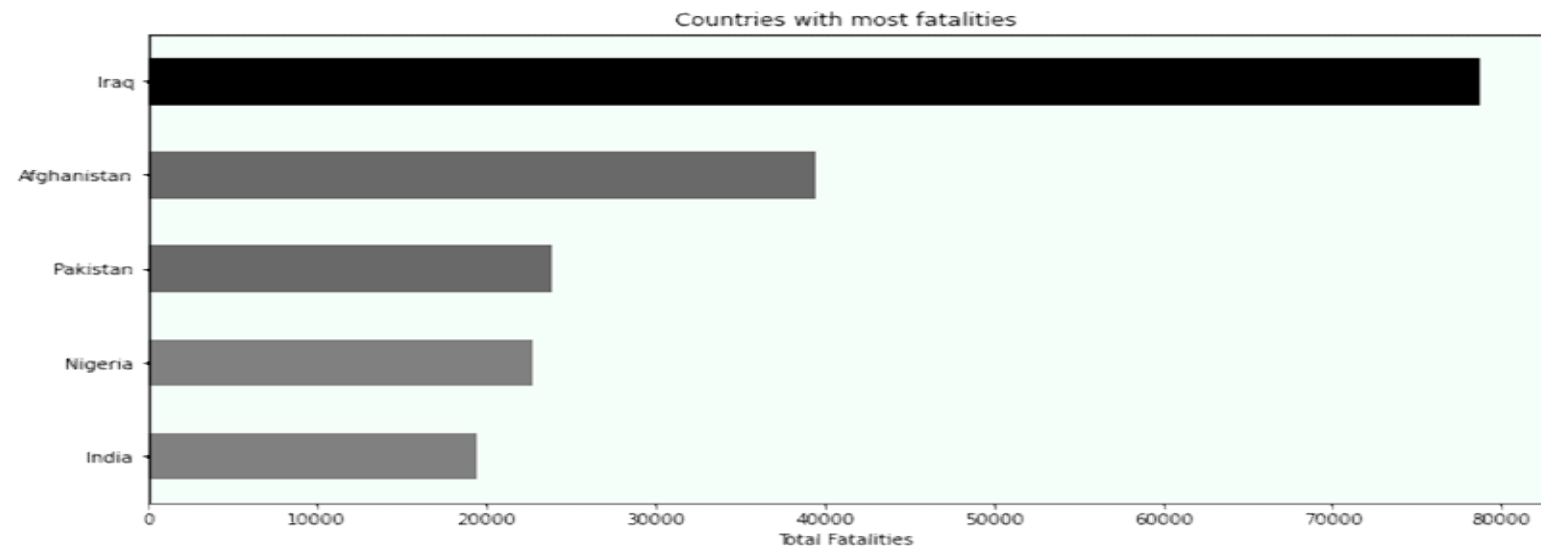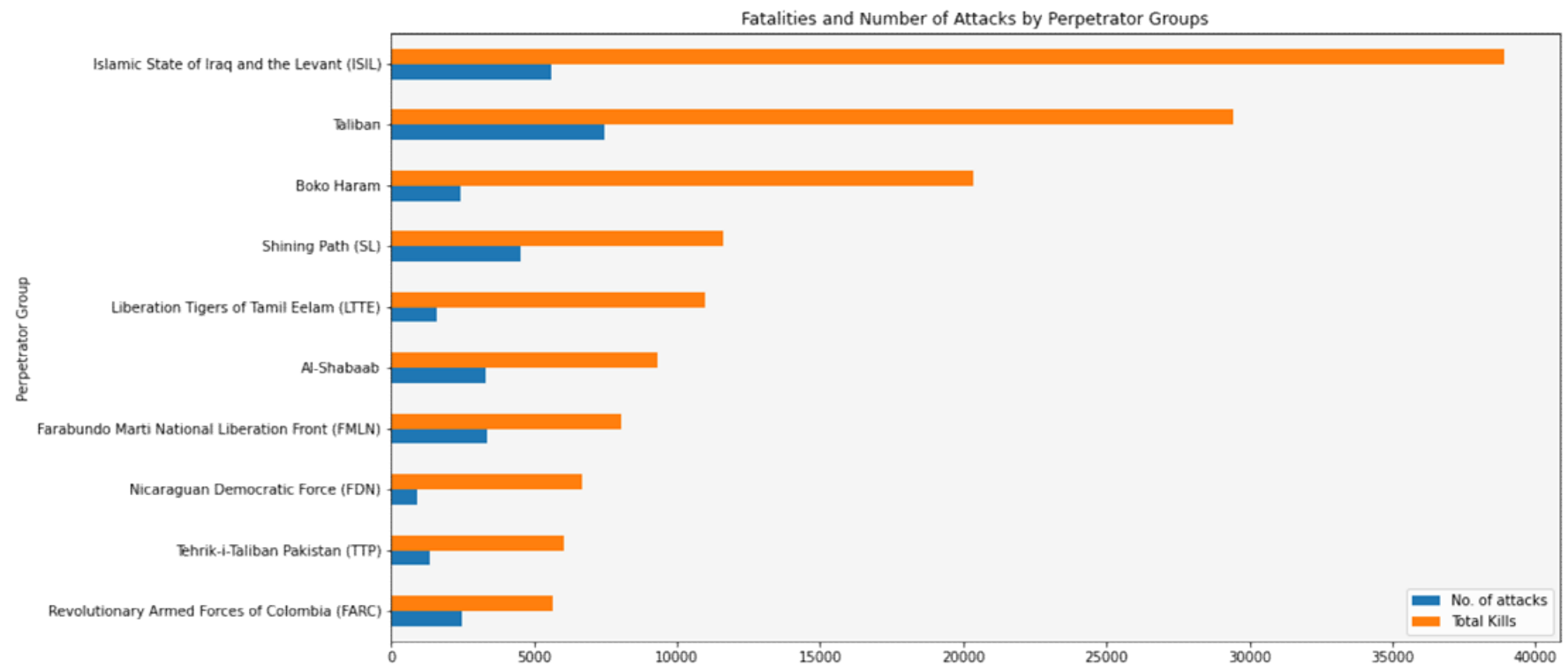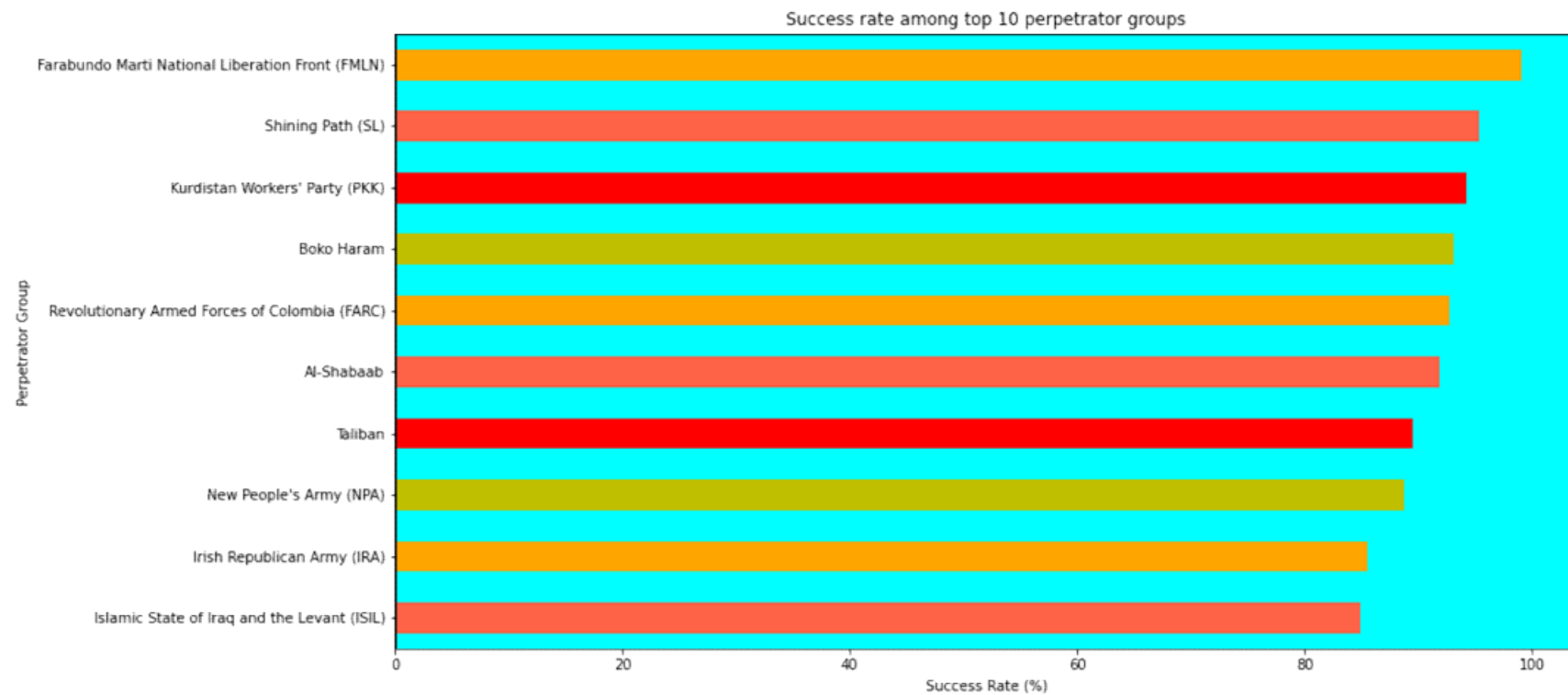
Conclusions

- Terrorist attacks have spiked in the last decade(2010-2020)

- Middle East and South East Asia region has experienced most number of attacks over the years which is far more than other areas (more than twice the number of attacks when compared with other regions)

- Bombing is the most used attack type whereas Explosives and Firearms are most used weapon types

- Suicide Attacks (which depict a higher level of radicalization) also witnessed a spike in the latest decade(2010-2020) so did the fatalities due to suicide attacks

- Iraq has suffered most suicide attacks and fatalities due to it.

Conclusions contd...

- Almost every year there occurs a terrorist activity which takes more than 50 lives.

- Talking about fatalities, Iraq has suffered the most fatalities among all countries due to these events.

- In case of tackling terrorists, Afghanistan leads with the most number of terrorist fatalities with Iraq at second position.

- Most notorious terrorist groups based on fatalities caused would be: ISIL, Taliban, Boko Haram

- Based on Success Rate and Number of attacks Top 3 terrorist groups: FLMN,SL,PKK

<u>Challenges</u>

- Too many features to select for analysis

- Handling null values, as we could not afford to remove any observations

- Compilation Time