▾ Project Name - EDA On Global Terrorism

**Contribution - Individual Project By Aashish Kumar

Date : 28/jan/2023

GitHub Link-

Dataset Link:-

https://drive.google.com/file/d/1zbGpKYJ0pgF68Z7BfvbuxaMdu62pMLNk/view?usp=share_link

Why I Choose this Project

I Choose this project to Examine a variety of theoretical and empirical materials needed for analysing pressing questions, relating to war, security and peace.To gain a solid understanding of contemporary security challenges, from environmental degradation to gender based insecurity, and the ability to analyse these issues surrounding security and terrorism.

Summary:

The purpose of this Module is to introduce the key concepts and principles that underpin international instruments and institutions concerned with the complex topics of terrorism and how to counter terrorism, as well as any hard, security-based, responses adopted by States when confronted with acts of terrorism.The goal of the project is to understand more about the global terrorism from 1970 to 2017. There are 181691 records and 135 columns including date, country,target details,attack type, and also if there was a motive behind a attack, the outcomes of attack, and weapon details. The database is maintained by the researchers at the National Consortium for the Study of Terrorism and response to Terrorism , headquarters at the University of Maryland. We here by state that we have used this data materials solely for non-commercial analysis and visualization purpose.The main objective is to visualize terrorism data and make it

available to users in an easy to understand format.This project contains a collection of various analyses and visualizations to interpret patterns and trends in it. The project also contains a visualization tool that provides the user with dataset exploration capabilities.The primary dataset for this project is provided by START Consortium which contains data of terrorist events since 1970. Performing various data mining and data visualization techniques to interpret the nature of terrorism to better understand its trends and patterns in over 47 years of its recorded history.

Problem Statement

The purpose of this module is to understand the e key concepts and principles that underpin international instruments and institutions concerned with the complex topics of terrorism and how to counter terrorism, as well as any hard, security-based, responses adopted by States when confronted with acts of terrorism. When considering the concept of terrorism, it is important to note that as yet, there is no global consensus regarding an agreed definition of the term "terrorism" for legal purposes. Regarding the prosecution of the perpetrators of acts of terrorism, it is vital to understand how, why and to what extent, the impact of a lack of a universally agreed global legal definition of the term may have had on the effective investigation and prosecution of terrorist offences. Principally, prosecuting chargeable crimes must rely on the judicial forums available. A decision to prosecute a "terrorist" offence will depend, among other factors, on legal and non-legal considerations. Furthermore, the State of custody must decide either to prosecute (as a "terrorist" or an ordinary crime) or to extradite elsewhere for prosecution persons accused of serious, transboundary terrorist crimes. Choosing between prosecuting on the grounds of "terrorist" or of ordinary crimes also involves wider issues such as the distinction between armed and non-armed conflict, the State use of counter-terrorist force and the return of "terrorists" who have been fighting abroad.

Since the terrorist attacks of 11 September 2001, international support for more effective counter-terrorism measures and responses has led to greater international cooperation in counter-terrorist matters, and there is certainly evidence of a widespread hardening of approaches to the prosecution of "terrorists". This is important in a context that is witnessing the increased export and globalization of terrorism by groups such as Al-Qaida and the Islamic State in Syria and the Levant (ISIL, or Da'esh), a trend that shows no sign of abating. In response, States are utilizing a range of counter-terrorism measures, from criminal justice mechanisms—which should represent the usual response, including as a means of terrorism prevention—to "harder" security-based measures accompanied by increased military spending. Links of all external dataset are mentioned in reference section.

*Define Your Business Objective? *

Thousands of researchers, analysts, policy-makers, and students use the Global Terrorism Database(GTD) every day. We aim to better understand the strengths and limitations of the present security agents through an intensive study of this database. The objective is to analyse the causes and consequences of terrorism through a detailed analysis of the GTD.finding hot zones and most active terrorist groups so we can keep eye on them also finding weapon type to band and restrict them. And prevent/stop terrorism to make this world peacfull and harmony

▾ Resources Used :-

1.Python
2.Google Colab
3.Pandas
4.Matplotlib

Importing all the libraries required for analysis

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
%matplotlib inline
```

Importing and observing the data

```
from google.colab import drive
drive.mount('/content/drive')
```

```
    Mounted at /content/drive
```

```
import pandas as pd
data = pd.read_csv('/content/drive/MyDrive/Colab Notebooks/global terrorism data.csv/global_t
df=pd.DataFrame(data)
print("Data has been succesfully imported")
```

```
    Data has been succesfully imported
```

```
data.head()
```

	eventid	iyear	imonth	iday	approxdate	extended	resolution	country	country
0	197000000001	1970	7	2	NaN	0	NaN	58	Domin Rep
1	197000000002	1970	0	0	NaN	0	NaN	130	M
2	197001000001	1970	1	0	NaN	0	NaN	160	Philipp
3	197001000002	1970	1	0	NaN	0	NaN	78	Gr
4	197001000003	1970	1	0	NaN	0	NaN	101	J

5 rows × 135 columns

```
df.columns
```

```
Index(['eventid', 'iyear', 'imonth', 'iday', 'approxdate', 'extended',
       'resolution', 'country', 'country_txt', 'region',
       ...
       'addnotes', 'scite1', 'scite2', 'scite3', 'dbsource', 'INT_LOG',
       'INT_IDEO', 'INT_MISC', 'INT_ANY', 'related'],
      dtype='object', length=135)
```

NOTE :Since it contain 135 columns.Thet have a huge propotion in dataset and learning them does not male any sense.So,we will rename the coulmns name for better understanding and then we will only extract necessary coulmns.

```
df.shape
```

```
(181691, 135)
```

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 181691 entries, 0 to 181690
Columns: 135 entries, eventid to related
dtypes: float64(55), int64(22), object(58)
memory usage: 187.1+ MB
```

```
for i in df.columns:
  print(i,end=", ")
```

```
eventid, iyear, imonth, iday, approxdate, extended, resolution, country, country_txt, re
```

Cleaning the data

```
df=df[["iyear","imonth","iday","country_txt","region_txt","provstate","city",
       "latitude","longitude","location","summary","attacktype1_txt","targtype1_txt",
       "gname","motive","weaptype1_txt","nkill","nwound","addnotes"]]
df.head()
```

```
df.rename(columns={"iyear":"Year","imonth":"Month","iday":"Day","country_txt":"Country",
                   "region_txt":"Region","provstate":"Province/State","city":"City",
                   "latitude":"Latitude","longitude":"Longitude","location":"Location",
                   "summary":"Summary","attacktype1_txt":"Attack Type","targtype1_txt":"Targe
                   "gname":"Group Name","motive":"Motive","weaptype1_txt":"Weapon Type",
                   "nkill":"Killed","nwound":"Wounded","addnotes":"Add Notes"},inplace=True)
```

```
/usr/local/lib/python3.8/dist-packages/pandas/core/frame.py:5039: SettingWithCopyWarning
A value is trying to be set on a copy of a slice from a DataFrame

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_
  return super().rename(
```

```
df.head()
```

	Year	Month	Day	Country	Region	Province/State	City	Latitude	Longitude
0	1970	7	2	Dominican Republic	Central America & Caribbean	NaN	Santo Domingo	18.456792	-69.951164
1	1970	0	0	Mexico	North America	Federal	Mexico city	19.371887	-99.086624
2	1970	1	0	Philippines	Southeast Asia	Tarlac	Unknown	15.478598	120.599741
3	1970	1	0	Greece	Western Europe	Attica	Athens	37.997490	23.762728
4	1970	1	0	Japan	East Asia	Fukouka	Fukouka	33.580412	130.396361

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 181691 entries, 0 to 181690
Data columns (total 18 columns):
 #   Column          Non-Null Count   Dtype
---  ------          --------------   -----
 0   Year            181691 non-null  int64
 1   Month           181691 non-null  int64
```

```
 2   Day             181691 non-null  int64
 3   Country         181691 non-null  object
 4   Region          181691 non-null  object
 5   Province/State  181270 non-null  object
 6   City            181257 non-null  object
 7   Latitude        177135 non-null  float64
 8   Longitude       177134 non-null  float64
 9   Location        55495 non-null   object
 10  Summary         115562 non-null  object
 11  Target Type     181691 non-null  object
 12  Group Name      181691 non-null  object
 13  Motive          50561 non-null   object
 14  Weapon Type     181691 non-null  object
 15  Killed          171378 non-null  float64
 16  Wounded         165380 non-null  float64
 17  Add Notes       28289 non-null   object
dtypes: float64(4), int64(3), object(11)
memory usage: 25.0+ MB
```

```
df.shape
```

```
(181691, 18)
```

```
df.isnull().sum()
```

```
Year                  0
Month                 0
Day                   0
Country               0
Region                0
Province/State      421
City                434
Latitude           4556
Longitude          4557
Location         126196
Summary           66129
Target Type           0
Group Name            0
Motive           131130
Weapon Type           0
Killed            10313
Wounded           16311
Add Notes        153402
dtype: int64
```

```
df["Killed"]=df["Killed"].fillna(0)
df["Wounded"]=df["Wounded"].fillna(0)
df["Casualty"]=df["Killed"]+df["Wounded"]
```

```
<ipython-input-31-a027e751f953>:1: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead
```

```
See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_
  df["Killed"]=df["Killed"].fillna(0)
<ipython-input-31-a027e751f953>:2: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_
  df["Wounded"]=df["Wounded"].fillna(0)
<ipython-input-31-a027e751f953>:3: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame.
Try using .loc[row_indexer,col_indexer] = value instead

See the caveats in the documentation: https://pandas.pydata.org/pandas-docs/stable/user_
  df["Casualty"]=df["Killed"]+df["Wounded"]
```

```
df.describe()
```

	Year	Month	Day	Latitude	Longitude	K
count	181691.000000	181691.000000	181691.000000	177135.000000	1.771340e+05	171378.0
mean	2002.638997	6.467277	15.505644	23.498343	-4.586957e+02	2.4
std	13.259430	3.388303	8.814045	18.569242	2.047790e+05	11.5
min	1970.000000	0.000000	0.000000	-53.154613	-8.618590e+07	0.0
25%	1991.000000	4.000000	8.000000	11.510046	4.545640e+00	0.0
50%	2009.000000	6.000000	15.000000	31.467463	4.324651e+01	0.0
75%	2014.000000	9.000000	23.000000	34.685087	6.871033e+01	2.0
max	2017.000000	12.000000	31.000000	74.633553	1.793667e+02	1570.0

Observations

1. The data consists of terrorist activities ranging from the year: 1970 to 2017
2. Maximum number of people killed in an event were: 1570
3. Maximum number of people wounded in an event were: 8191

Visualizing the data

▾ 1. Year wise attacks

1. Number of attacks each year

```
attacks=df["Year"].value_counts(dropna=False).sort_index().to_frame().reset_index().rename(co
attacks.head()
```

	Attacks
Year	
1970	651
1971	471
1972	568
1973	473
1974	581

```
attacks.plot(kind="bar",color="cornflowerblue",figsize=(15,6),fontsize=13)
plt.title("Timeline of Attacks",fontsize=15)
plt.xlabel("Years",fontsize=15)
plt.ylabel("Number of Attacks",fontsize=15)
plt.show()
```
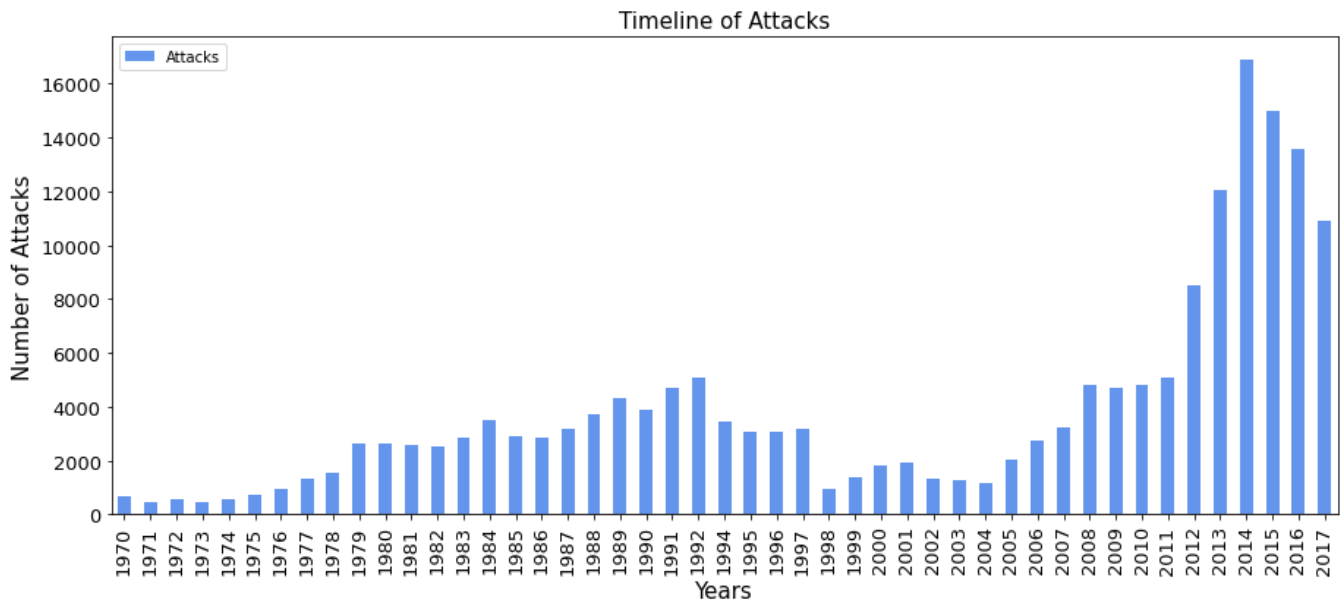
(i). Most number of attacks(16903) in 2014

(ii). Least number of attacks(471) in 1971

3. killed in each year

```
yk=df[["Year","Killed"]].groupby("Year").sum()
yk.head()
```

	Killed
Year	
1970	174.0
1971	173.0
1972	566.0
1973	370.0
1974	539.0

4. Wounded in each region

```
yw=df[["Year","Wounded"]].groupby("Year").sum()
yw.head()
```

|	Wounded
Year	
1970	212.0
1971	82.0
1972	409.0
1973	495.0
1974	865.0

```
fig=plt.figure()
ax0=fig.add_subplot(2,1,1)
ax1=fig.add_subplot(2,1,2)

#Killed
yk.plot(kind="bar",color="cornflowerblue",figsize=(15,15),ax=ax0)
ax0.set_title("People Killed in each Year")
```

```
ax0.set_xlabel("Years")
ax0.set_ylabel("Number of People Killed")

#Wounded
yw.plot(kind="bar",color="cornflowerblue",figsize=(15,15),ax=ax1)
ax1.set_title("People Wounded in each Year")
ax1.set_xlabel("Years")
ax1.set_ylabel("Number of People Wounded")

plt.show()
```

People Killed in each Year
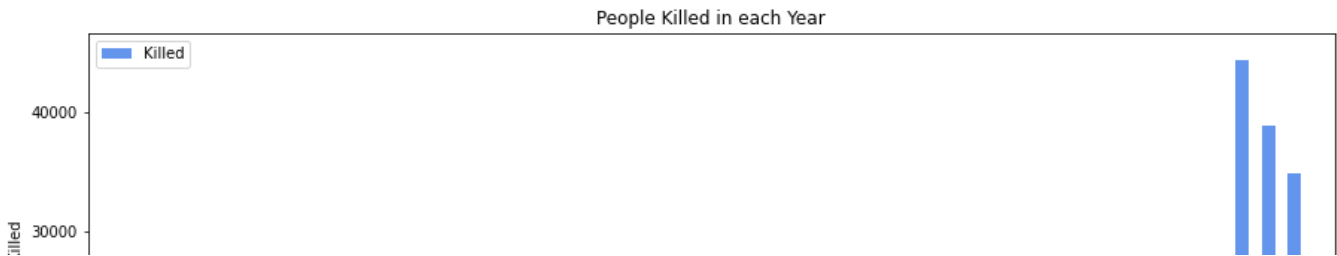
2. Region wise attacks

1.Distribution of region wise attacks from 1970 to 2017

```
reg=pd.crosstab(df.Year,df.Region)
reg.head()
```

Region	Australasia & Oceania	Central America & Caribbean	Central Asia	East Asia	Eastern Europe	Middle East & North Africa	North America	South America	South Asia
Year									
1970	1	7	0	2	12	28	472	65	1
1971	1	5	0	1	5	55	247	24	0
1972	8	3	0	0	1	53	73	33	1
1973	1	6	0	2	1	19	64	83	1

```
reg.plot(kind="area", stacked=False, alpha=0.5,figsize=(20,10))
plt.title("Region wise attacks",fontsize=20)
plt.xlabel("Years",fontsize=20)
plt.ylabel("Number of Attacks",fontsize=20)
plt.show()
```

Region wise attacks
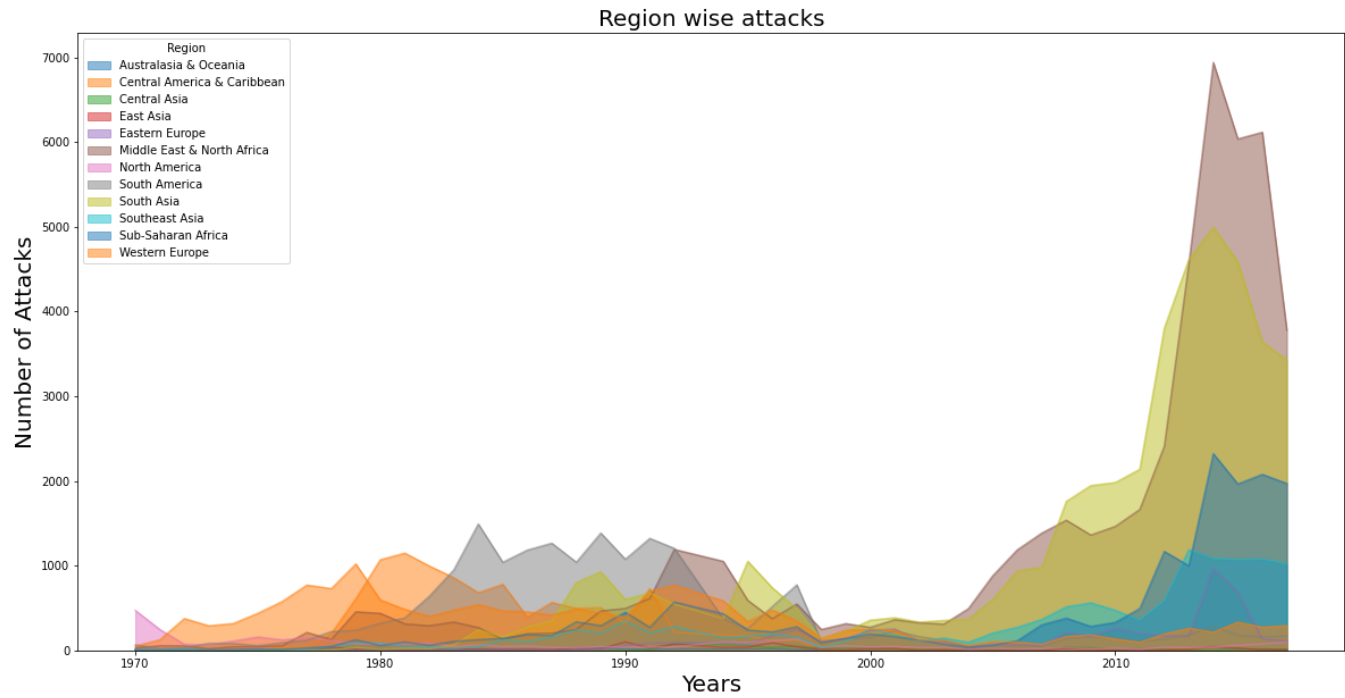
2.Killed in each region

```
rk=df[["Region","Killed"]].groupby("Region").sum().sort_values(by="Killed",ascending=False)
rk
```

	Killed
Region	
Middle East & North Africa	137642.0
South Asia	101319.0
Sub-Saharan Africa	78386.0
South America	28849.0
Central America & Caribbean	28708.0
Southeast Asia	15637.0
Eastern Europe	7415.0
Western Europe	6694.0
North America	4916.0
East Asia	1152.0
Central Asia	1000.0
Australasia & Oceania	150.0

3.Wounded in each region

```
rw=df[["Region","Wounded"]].groupby("Region").sum().sort_values(by="Wounded",ascending=False)
rw
```

	Wounded
Region	
Middle East & North Africa	214308.0
South Asia	141360.0
Sub-Saharan Africa	52857.0
Southeast Asia	26259.0
North America	21531.0
Western Europe	18332.0
South America	16704.0
Eastern Europe	12045.0
East Asia	9213.0
Central America & Caribbean	8991.0
Central Asia	2009.0
Australasia & Oceania	260.0

```
fig=plt.figure()
ax0=fig.add_subplot(1,2,1)
ax1=fig.add_subplot(1,2,2)

#Killed
rk.plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax0)
ax0.set_title("People Killed in each Region")
ax0.set_xlabel("Regions")
ax0.set_ylabel("Number of People Killed")

#Wounded
rw.plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax1)
ax1.set_title("People Wounded in each Region")
ax1.set_xlabel("Regions")
ax1.set_ylabel("Number of People Wounded")

plt.show()
```
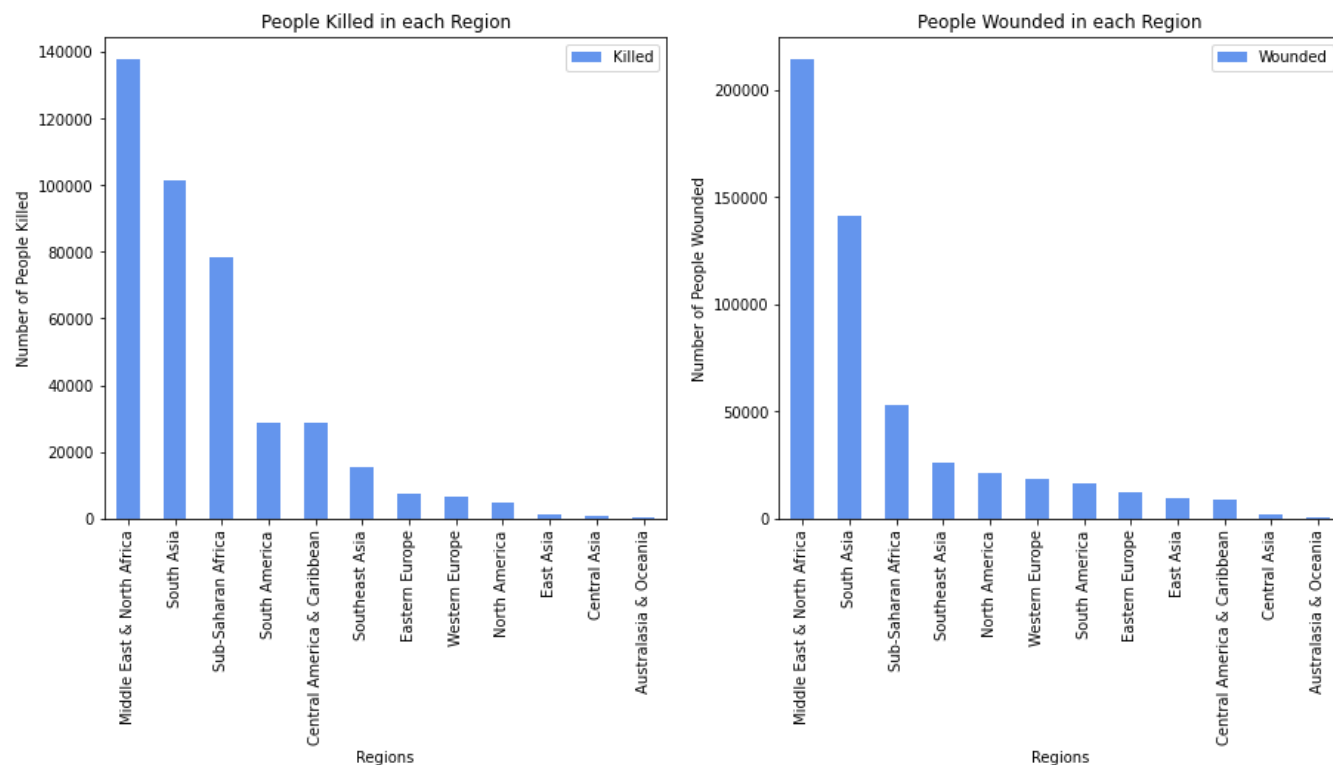
▾ 3.Country wise attacks TOP-10

1.Number of Attacks in each Country

```
ct=df["Country"].value_counts().head(10)
ct
```

```
     Iraq                24636
     Pakistan            14368
     Afghanistan         12731
     India               11960
     Colombia             8306
     Philippines          6908
     Peru                 6096
     El Salvador          5320
     United Kingdom       5235
     Turkey               4292
     Name: Country, dtype: int64
```

```
ct.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Country wise Attacks",fontsize=13)
```

```
plt.xlabel("Countries",fontsize=13)
plt.xticks(fontsize=12)
plt.ylabel("Number of Attacks",fontsize=13)
plt.show()
```
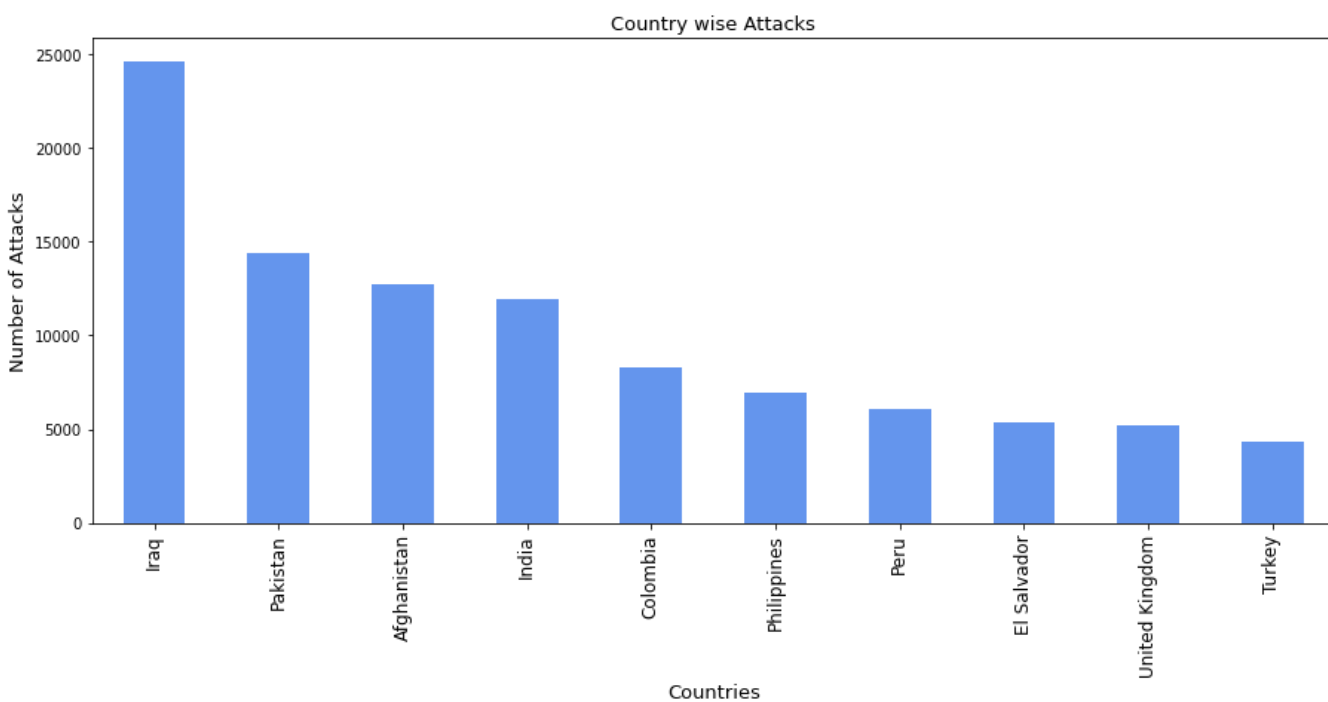

2. **Killed in each country**

```
cnk=df[["Country","Killed"]].groupby("Country").sum().sort_values(by="Killed",ascending=False
cnk.head(10)
```

	Killed
Country	
Iraq	78589.0
Afghanistan	39384.0

3. Wounded in each country

Nigeria	22682.0

```
cnw=df[["Country","Wounded"]].groupby("Country").sum().sort_values(by="Wounded",ascending=Fal
cnw.head(10)
```

	Wounded
Country	
Iraq	134690.0
Afghanistan	44277.0
Pakistan	42038.0
India	28980.0
United States	20702.0
Sri Lanka	15561.0
Syria	14109.0
Philippines	13367.0
Lebanon	10904.0
Colombia	10328.0

```
fig=plt.figure()
ax0=fig.add_subplot(1,2,1)
ax1=fig.add_subplot(1,2,2)

#Killed
cnk[:10].plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax0)
ax0.set_title("People Killed in each Country")
ax0.set_xlabel("Countries")
ax0.set_ylabel("Number of People Killed")

#Wounded
cnw[:10].plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax1)
ax1.set_title("People Wounded in each Country")
ax1.set_xlabel("Countries")
ax1.set_ylabel("Number of People Wounded")
```

```
plt.show()
```
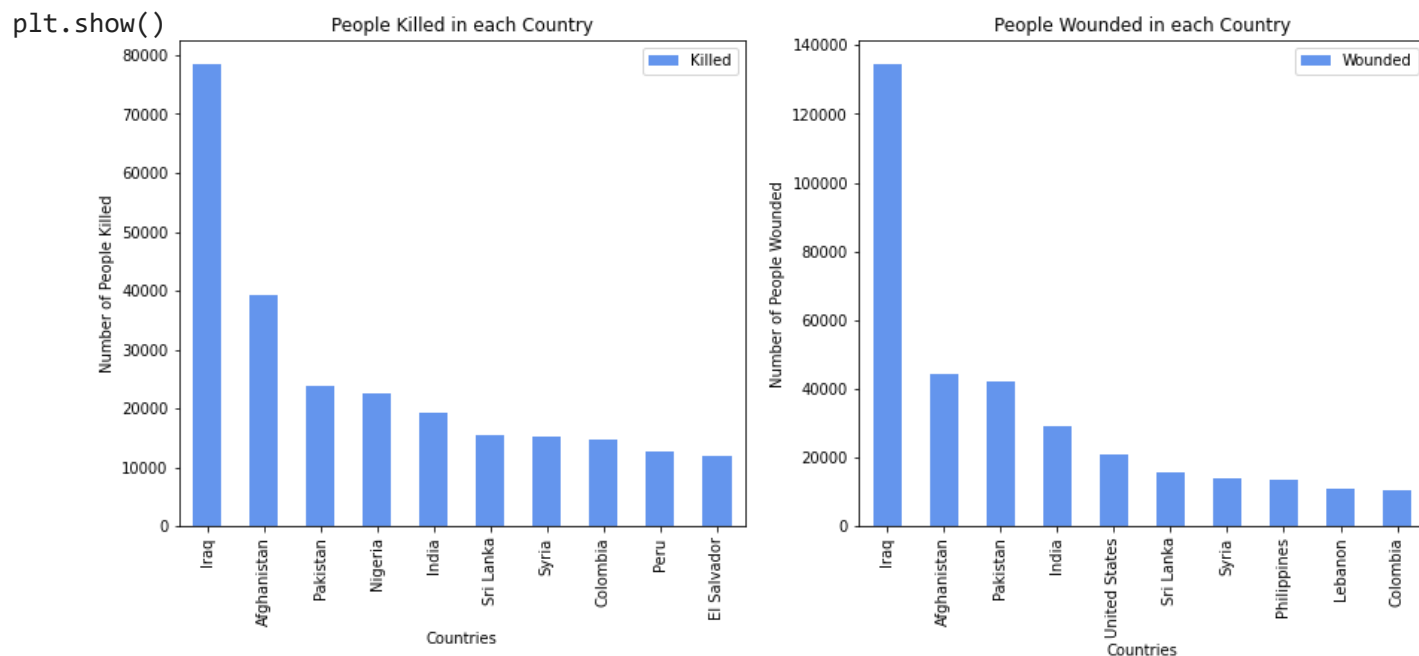

▾ 4. City wise attacks Top-10

1. Numbers of attacks in each city

```
city=df["City"].value_counts()[1:11]
city
```

```
Baghdad           7589
Karachi           2652
Lima              2359
Mosul             2265
Belfast           2171
Santiago          1621
Mogadishu         1581
San Salvador      1558
Istanbul          1048
Athens            1019
Name: City, dtype: int64
```

```
city.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("City wise Attacks",fontsize=13)
plt.xlabel("Cities",fontsize=13)
```

```
plt.xticks(fontsize=12)
plt.ylabel("Number of Attacks",fontsize=13)
plt.show()
```
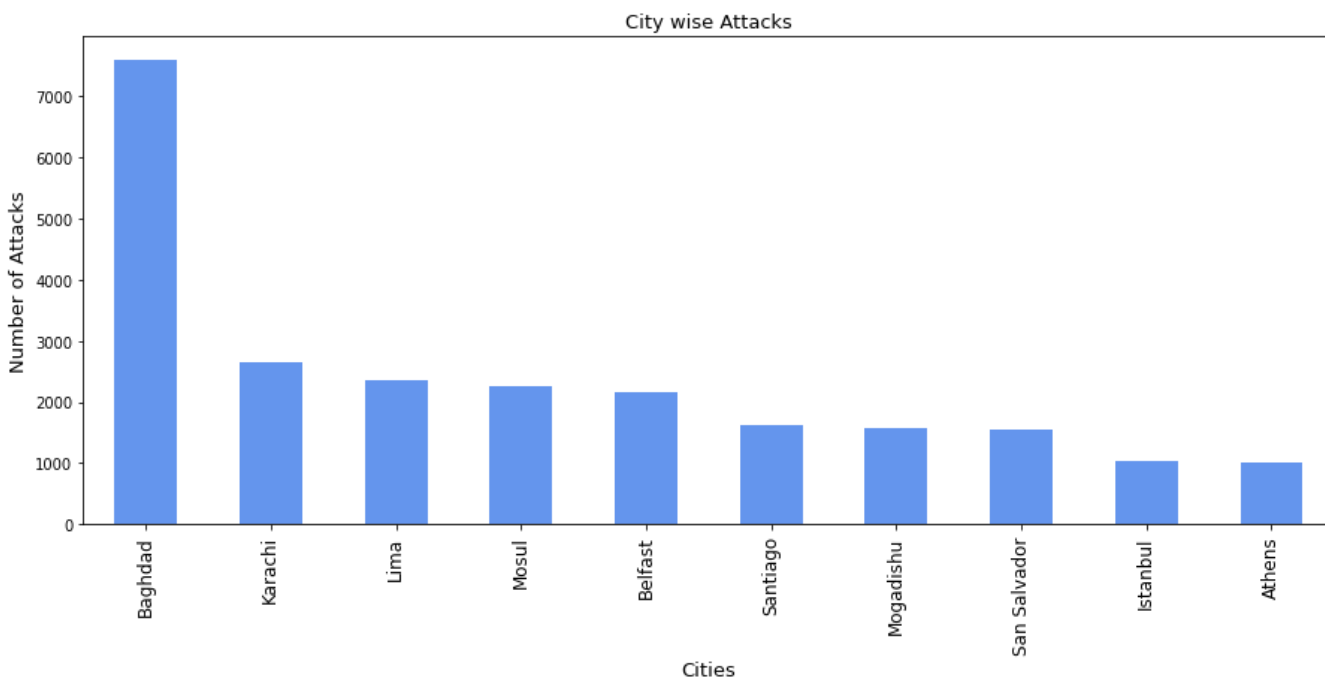

2.Killed in each city

```
ck=df[["City","Killed"]].groupby("City").sum().sort_values(by="Killed",ascending=False).drop(
ck.head(10)
```

	Killed
City	
Baghdad	21151.0

3.Wounded in each city

```
cw=df[["City","Wounded"]].groupby("City").sum().sort_values(by="Wounded",ascending=False).dro
cw.head(10)
```

|	Wounded
City	
Baghdad	56725.0
New York City	16781.0
Kabul	5973.0
Mosul	5787.0
Karachi	5688.0
Tokyo	5542.0
Beirut	5341.0
Nairobi	5024.0
Kirkuk	5008.0
Mogadishu	4955.0

```
fig=plt.figure()
ax0=fig.add_subplot(1,2,1)
ax1=fig.add_subplot(1,2,2)

#Killed
ck[:10].plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax0)
ax0.set_title("People Killed in each City")
ax0.set_xlabel("Cities")
ax0.set_ylabel("Number of People Killed")

#Wounded
cw[:10].plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax1)
ax1.set_title("People Wounded in each City")
ax1.set_xlabel("Cities")
ax1.set_ylabel("Number of People Wounded")

plt.show()
```
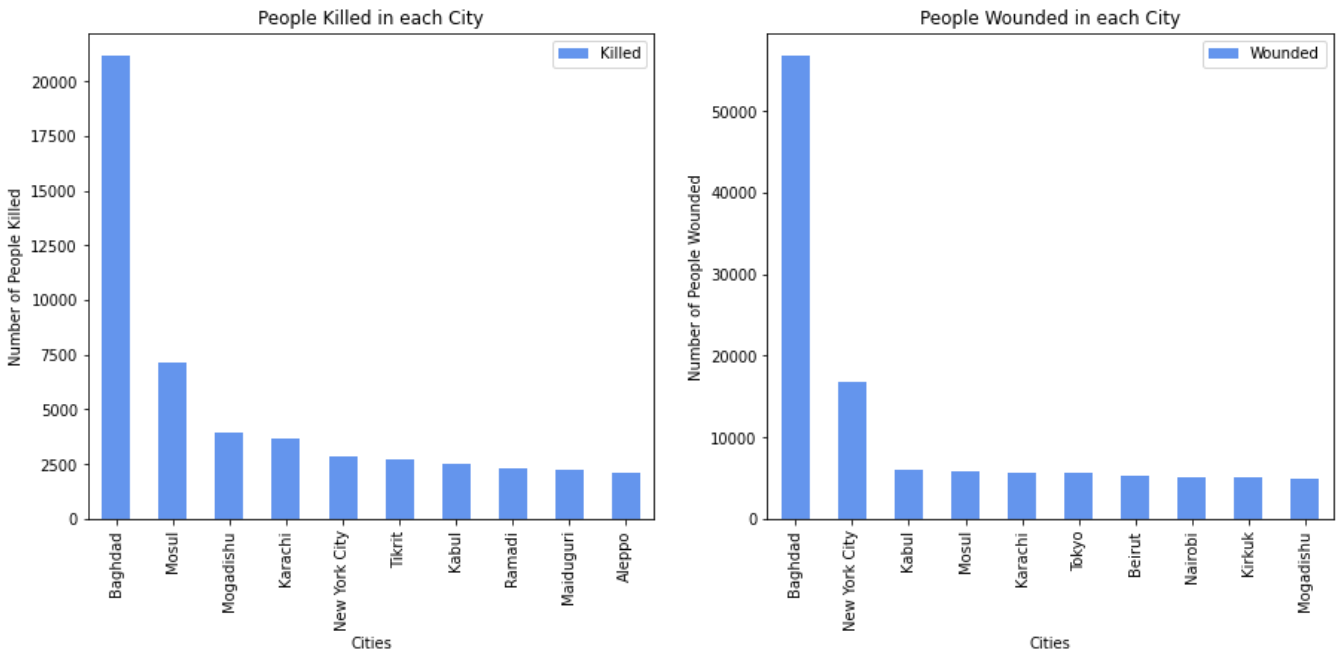
5. **Terrorist group wise attacks Top- 10**

1. Numbers of attacks by each group

```
grp=df["Group Name"].value_counts()[1:10]
grp
```

```
Taliban                                              7478
Islamic State of Iraq and the Levant (ISIL)          5613
Shining Path (SL)                                    4555
Farabundo Marti National Liberation Front (FMLN)     3351
Al-Shabaab                                           3288
New People's Army (NPA)                              2772
Irish Republican Army (IRA)                          2671
Revolutionary Armed Forces of Colombia (FARC)        2487
Boko Haram                                           2418
Name: Group Name, dtype: int64
```

```
grp.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Group wise Attacks",fontsize=13)
plt.xlabel("Terrorist Groups",fontsize=13)
plt.xticks(fontsize=12)
```

```
plt.ylabel("Number of Attacks",fontsize=13)
plt.show()
```
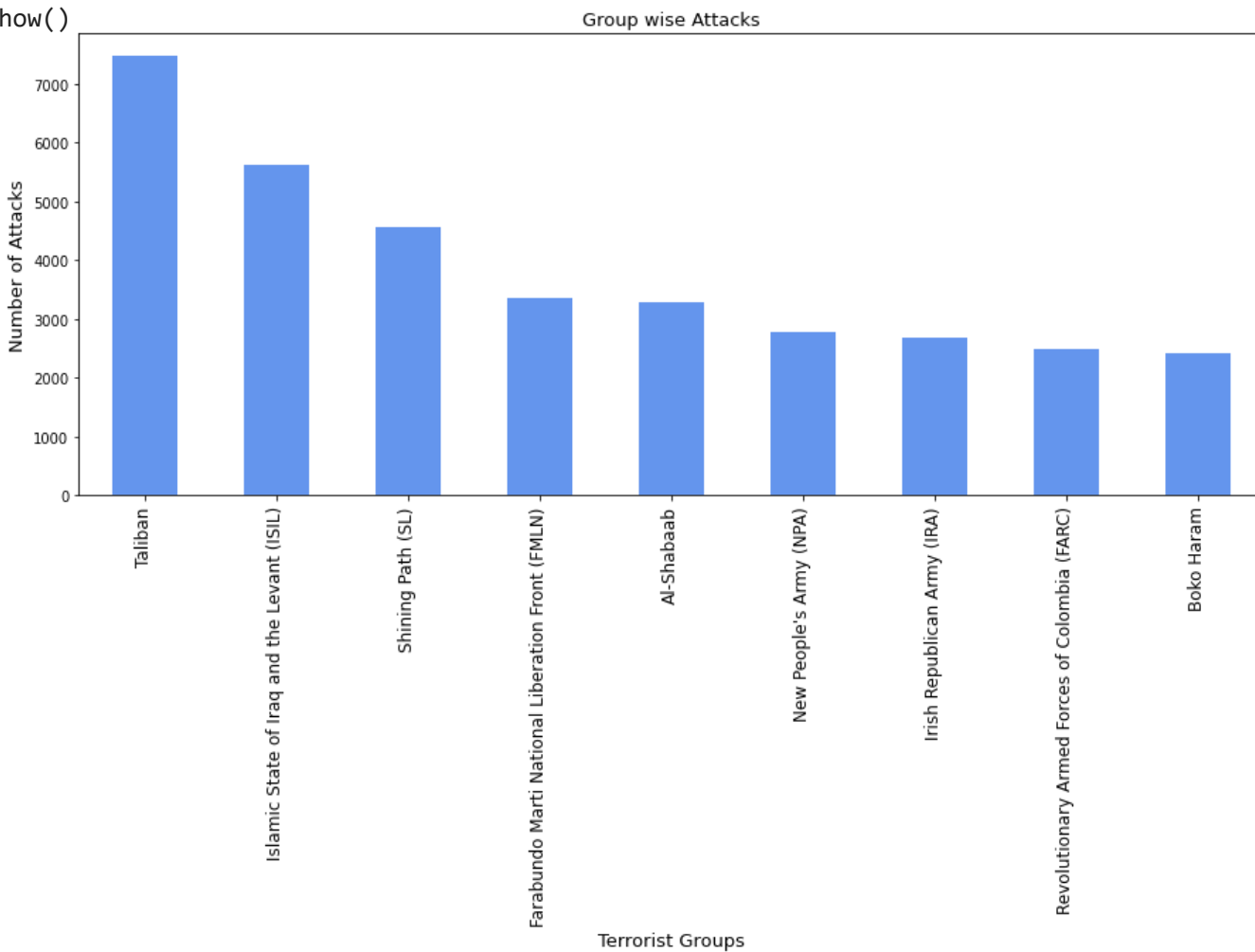

2.Killed by each Group

```
gk=df[["Group Name","Killed"]].groupby("Group Name").sum().sort_values(by="Killed",ascending=
gk.head(10)
```

	Killed
Group Name	
Islamic State of Iraq and the Levant (ISIL)	38923.0
Taliban	29410.0
Boko Haram	20328.0
Shining Path (SL)	11601.0
Liberation Tigers of Tamil Eelam (LTTE)	10989.0
Al-Shabaab	9330.0

## 3. Wounded by each group

| **Nicaraguan Democratic Force (FDN)** | 6662.0 |

```
gw=df[["Group Name","Wounded"]].groupby("Group Name").sum().sort_values(by="Wounded",ascendin
gw.head(10)
```

	Wounded
Group Name	
Islamic State of Iraq and the Levant (ISIL)	30672.0
Taliban	27932.0
Al-Qaida	24512.0
Liberation Tigers of Tamil Eelam (LTTE)	11031.0
Al-Qaida in Iraq	10343.0
Tehrik-i-Taliban Pakistan (TTP)	9532.0
Boko Haram	9473.0
Al-Shabaab	7624.0
Aum Shinri Kyo	6003.0
Kurdistan Workers' Party (PKK)	4908.0

```
fig=plt.figure()
ax0=fig.add_subplot(1,2,1)
ax1=fig.add_subplot(1,2,2)

#Killed
gk[:10].plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax0)
ax0.set_title("People Killed by each Group")
ax0.set_xlabel("Terrorist Groups")
ax0.set_ylabel("Number of people Killed")
```

```
#Wounded
gw[:10].plot(kind="bar",color="cornflowerblue",figsize=(15,6),ax=ax1)
ax1.set_title("People Wounded by each Group")
ax1.set_xlabel("Terrorist Groups")
ax1.set_ylabel("Number of people Wounded")
plt.show()
```
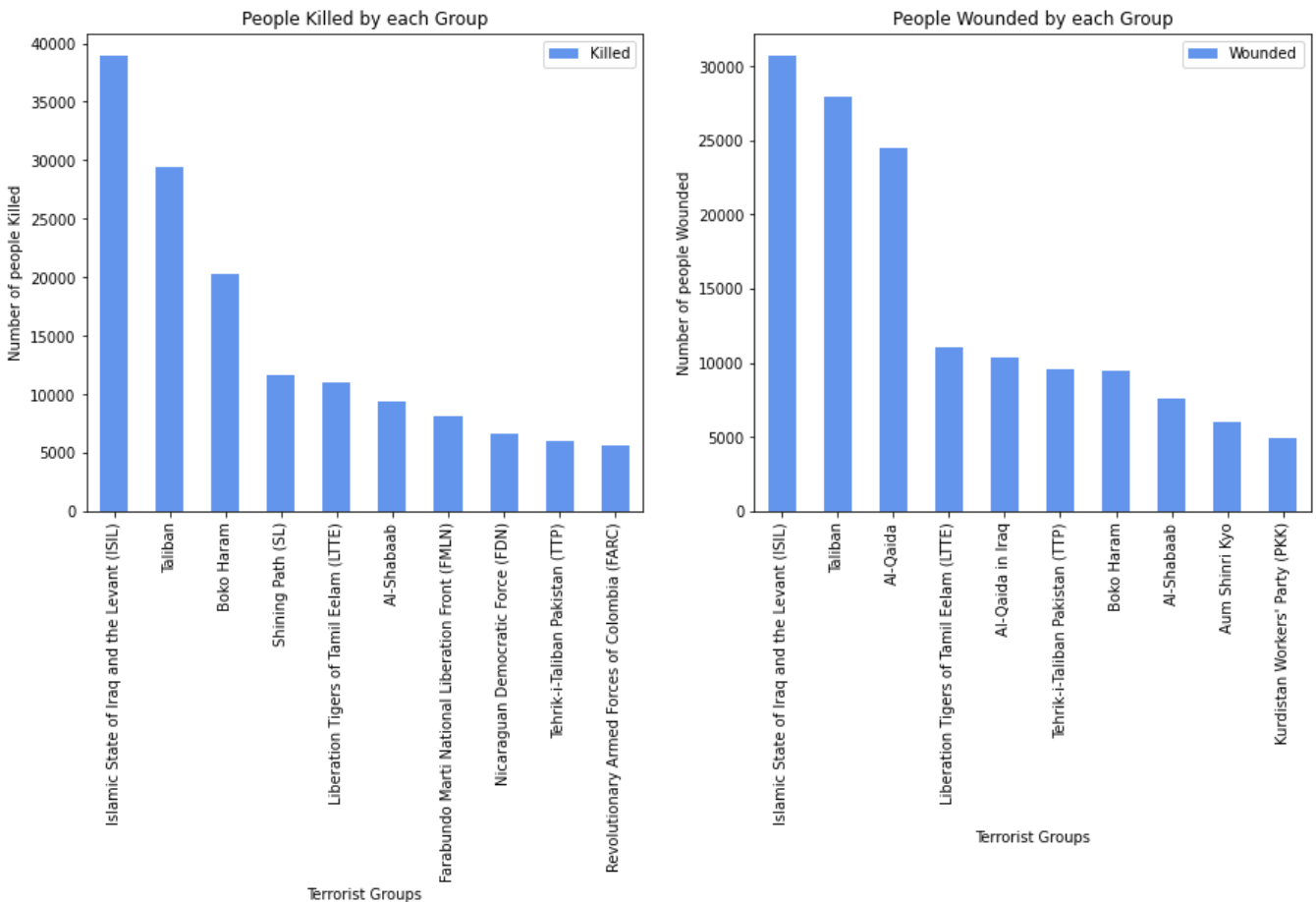

▾ 6. Target Type wise Attacks

1. Number of Attacks over each Target Type

```
ta=df["Target Type"].value_counts()
ta
```

```
    Private Citizens & Property      43511
    Military                         27984
    Police                           24506
    Government (General)             21283
    Business                         20669
    Transportation                    6799
    Utilities                         6023
    Unknown                           5898
    Religious Figures/Institutions    4440
    Educational Institution           4322
    Government (Diplomatic)           3573
    Terrorists/Non-State Militia      3039
    Journalists & Media               2948
    Violent Political Party           1866
    Airports & Aircraft               1343
    Telecommunication                 1009
    NGO                                970
    Tourists                           440
    Maritime                           351
    Food or Water Supply               317
    Abortion Related                   263
    Other                              137
    Name: Target Type, dtype: int64
```

```
ta.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Types of Targets",fontsize=13)
plt.xlabel("Target Types",fontsize=13)
plt.xticks(fontsize=12)
plt.ylabel("Number of Attacks",fontsize=13)
plt.show()
```

2. Killed in target type wise attack

```
tk=df[["Target Type","Killed"]].groupby("Target Type").sum().sort_values(by="Killed",ascendin
tk
```

	Killed
Target Type	
Private Citizens & Property	140504.0
Military	106047.0

3. Wounded in type wise attack

```
tw=df[["Target Type","Wounded"]].groupby("Target Type").sum().sort_values(by="Wounded",ascend
tw
```

Wounded

Target Type

```
fig=plt.figure()
ax0=fig.add_subplot(1,2,1)
ax1=fig.add_subplot(1,2,2)

#Killed
tk.plot(kind="bar",color="cornflowerblue",figsize=(17,6),ax=ax0)
ax0.set_title("People Killed in each Target Attack")
ax0.set_xlabel("Target Types")
ax0.set_ylabel("Number of people Killed")

#Wounded
tw.plot(kind="bar",color="cornflowerblue",figsize=(17,6),ax=ax1)
ax1.set_title("People Wounded in each Target Attack")
ax1.set_xlabel("Target Types")
ax1.set_ylabel("Number of people Wounded")
plt.show()
```
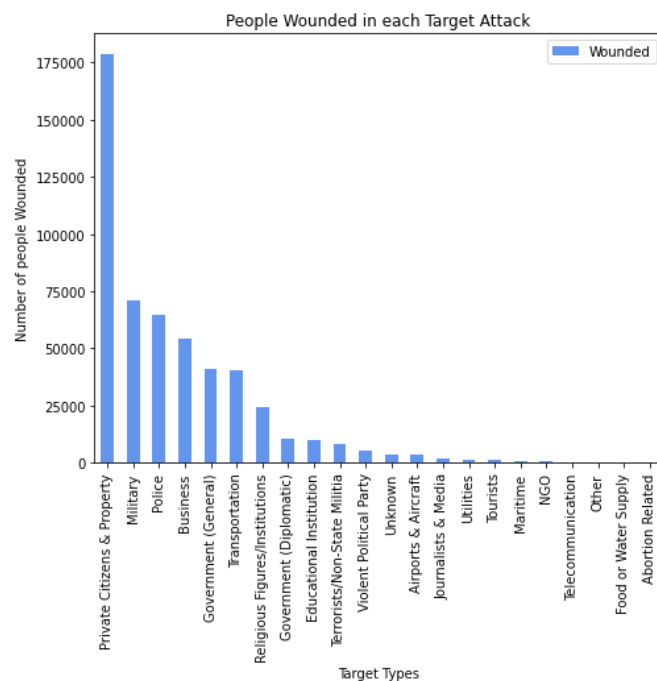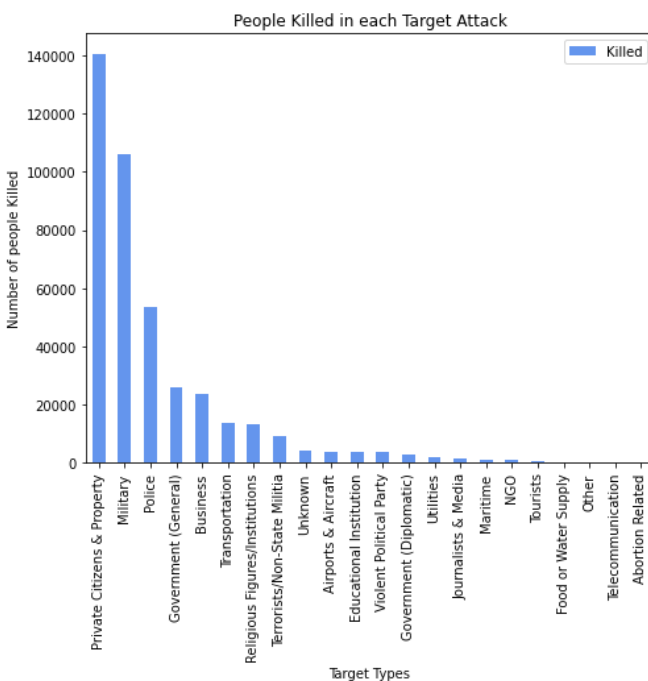
7.Group + country wise - Top-10

1.Sorting by numbers of attacks

```
gca=df[["Group Name","Country"]].value_counts().drop("Unknown")
gca.head(10)
```

```
/usr/local/lib/python3.8/dist-packages/pandas/core/generic.py:4150: PerformanceWarning:
  obj = obj._drop_axis(labels, axis, level=level, errors=errors)
Group Name                                          Country
Taliban                                             Afghanistan     7423
Islamic State of Iraq and the Levant (ISIL)         Iraq            4797
Shining Path (SL)                                   Peru            4541
Farabundo Marti National Liberation Front (FMLN)    El Salvador     3330
Al-Shabaab                                          Somalia         2867
New People's Army (NPA)                             Philippines     2770
Irish Republican Army (IRA)                         United Kingdom  2575
Revolutionary Armed Forces of Colombia (FARC)       Colombia        2468
Kurdistan Workers' Party (PKK)                      Turkey          2109
Boko Haram                                          Nigeria         2087
dtype: int64
```

```
gca.head(10).plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Countries with most attacks by a particular Group",fontsize=13)
plt.xlabel("(Terrorist Group,Country)",fontsize=13)
plt.xticks(fontsize=12)
plt.ylabel("Number of Attacks",fontsize=13)
plt.show()
```

Countries with most attacks by a particular Group
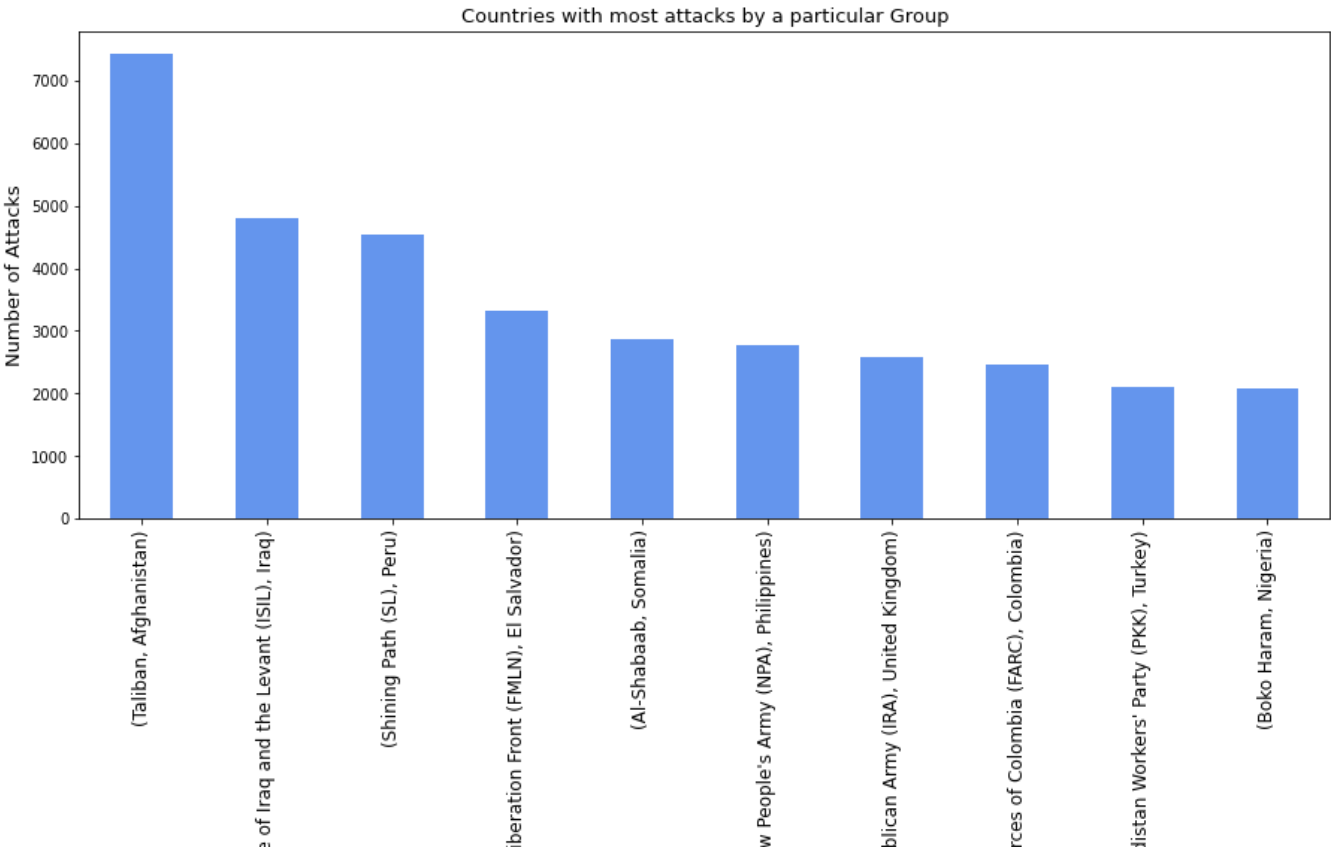
2. Sorting by Number of Casualties

```
gcc=df[["Group Name","Country","Casualty"]].groupby(["Group Name","Country"],axis=0).sum().so
gcc
```

		Casualty
Group Name	**Country**	
Taliban	**Afghanistan**	57140.0
Islamic State of Iraq and the Levant (ISIL)	**Iraq**	54755.0
Boko Haram	**Nigeria**	24588.0
Liberation Tigers of Tamil Eelam (LTTE)	**Sri Lanka**	21919.0
Al-Qaida	**United States**	19494.0
Tehrik-i-Taliban Pakistan (TTP)	**Pakistan**	15532.0
Shining Path (SL)	**Peru**	14625.0
Al-Qaida in Iraq	**Iraq**	14348.0
Al-Shabaab	**Somalia**	14201.0
Farabundo Marti National Liberation Front (FMLN)	**El Salvador**	12068.0

```
gcc.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Countries with most casualties by a particular Group",fontsize=13)
plt.xlabel("(Terrorist Group,Country)",fontsize=13)
plt.xticks(fontsize=12)
plt.ylabel("Number of Casualties",fontsize=13)
plt.show()
```
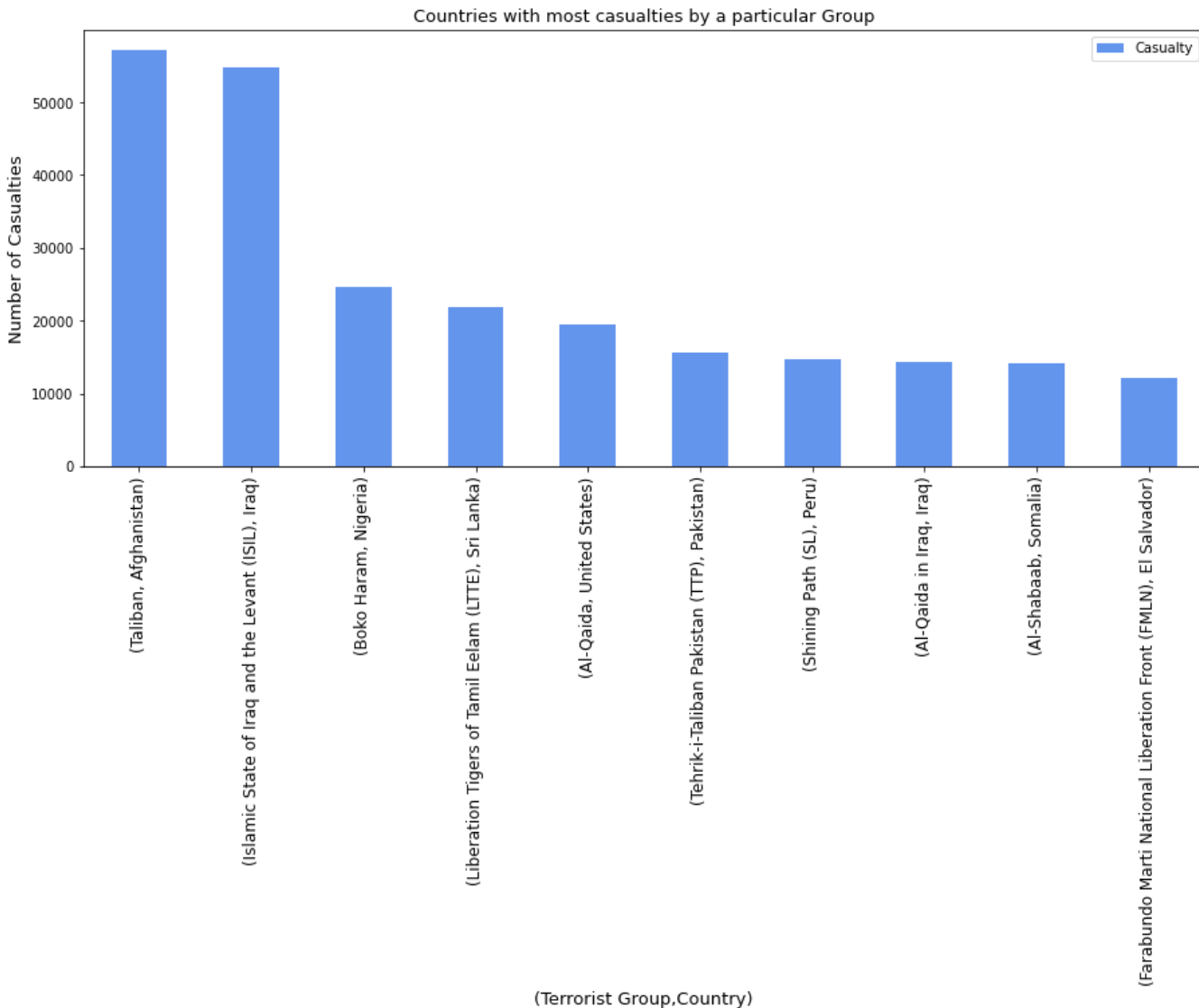

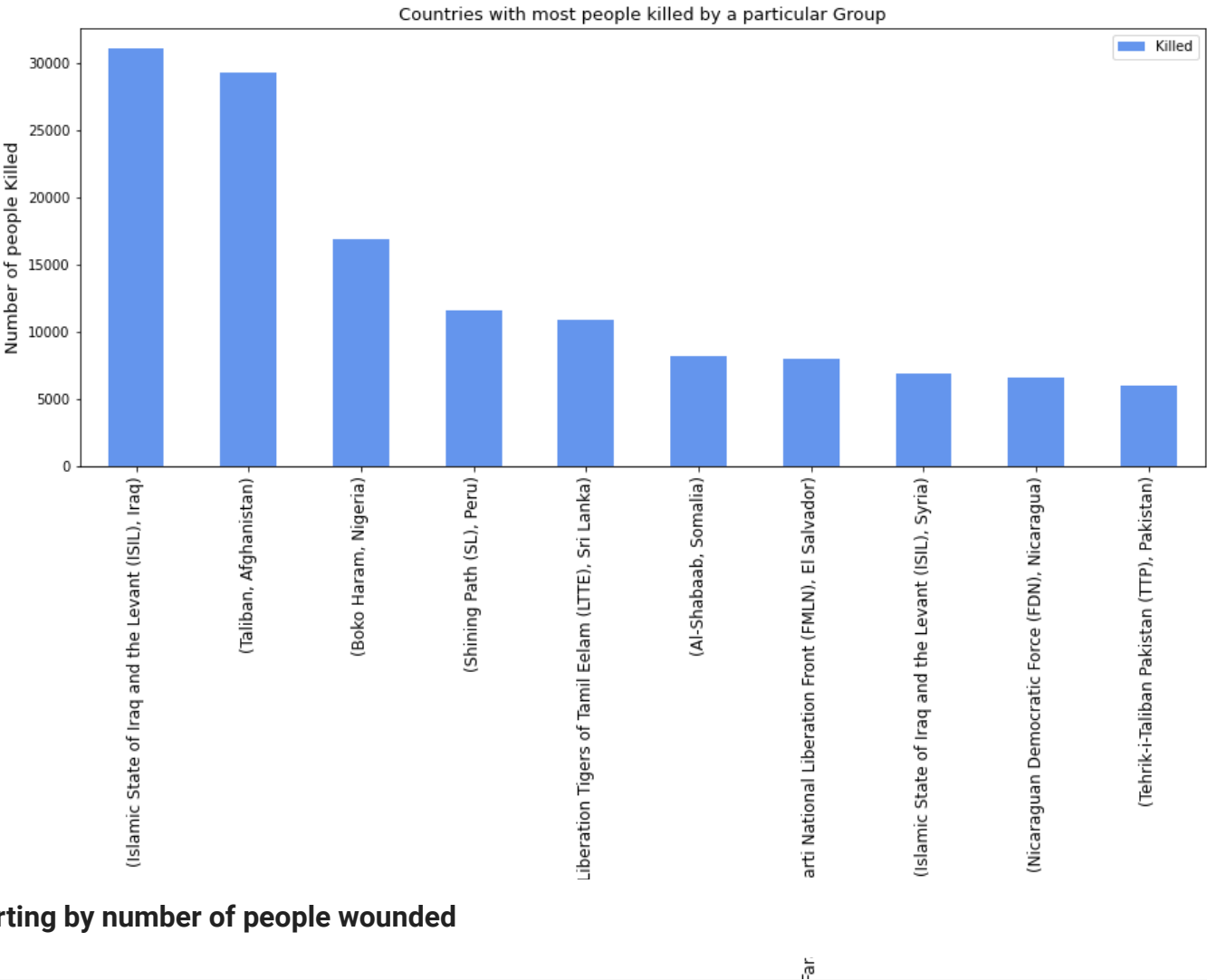### 3.Sorting by Number of People Killed

```
gck=df[["Group Name","Country","Killed"]].groupby(["Group Name","Country"],axis=0).sum().sort
gck
```

```
/usr/local/lib/python3.8/dist-packages/pandas/core/generic.py:4150: PerformanceWarning:
  obj = obj._drop_axis(labels, axis, level=level, errors=errors)
```

		Killed
Group Name	**Country**	
Islamic State of Iraq and the Levant (ISIL)	Iraq	31058.0
Taliban	Afghanistan	29269.0
Boko Haram	Nigeria	16917.0
Shining Path (SL)	Peru	11595.0
Liberation Tigers of Tamil Eelam (LTTE)	Sri Lanka	10928.0
Al-Shabaab	Somalia	8176.0
Farabundo Marti National Liberation Front (FMLN)	El Salvador	8019.0
Islamic State of Iraq and the Levant (ISIL)	Syria	6883.0
Nicaraguan Democratic Force (FDN)	Nicaragua	6630.0
Tehrik-i-Taliban Pakistan (TTP)	Pakistan	6014.0

```
gck.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Countries with most people killed by a particular Group",fontsize=13)
plt.xlabel("(Terrorist Group,Country)",fontsize=13)
plt.xticks(fontsize=12)
plt.ylabel("Number of people Killed",fontsize=13)
plt.show()
```

Countries with most people killed by a particular Group

4. Sorting by number of people wounded

```
gcw=df[["Group Name","Country","Wounded"]].groupby(["Group Name","Country"],axis=0).sum().sor
gcw
```

```
/usr/local/lib/python3.8/dist-packages/pandas/core/generic.py:4150: PerformanceWarning:
  obj = obj._drop_axis(labels, axis, level=level, errors=errors)
```

Wounded

Group Name   Country

```
gcw.plot(kind="bar",color="cornflowerblue",figsize=(15,6))
plt.title("Countries with most people wounded by a particular Group",fontsize=13)
plt.xlabel("(Terrorist Group,Country)",fontsize=13)
plt.xticks(fontsize=12)
plt.ylabel("Number of people Wounded",fontsize=13)
plt.show()
```

Countries with most people wounded by a particular Group
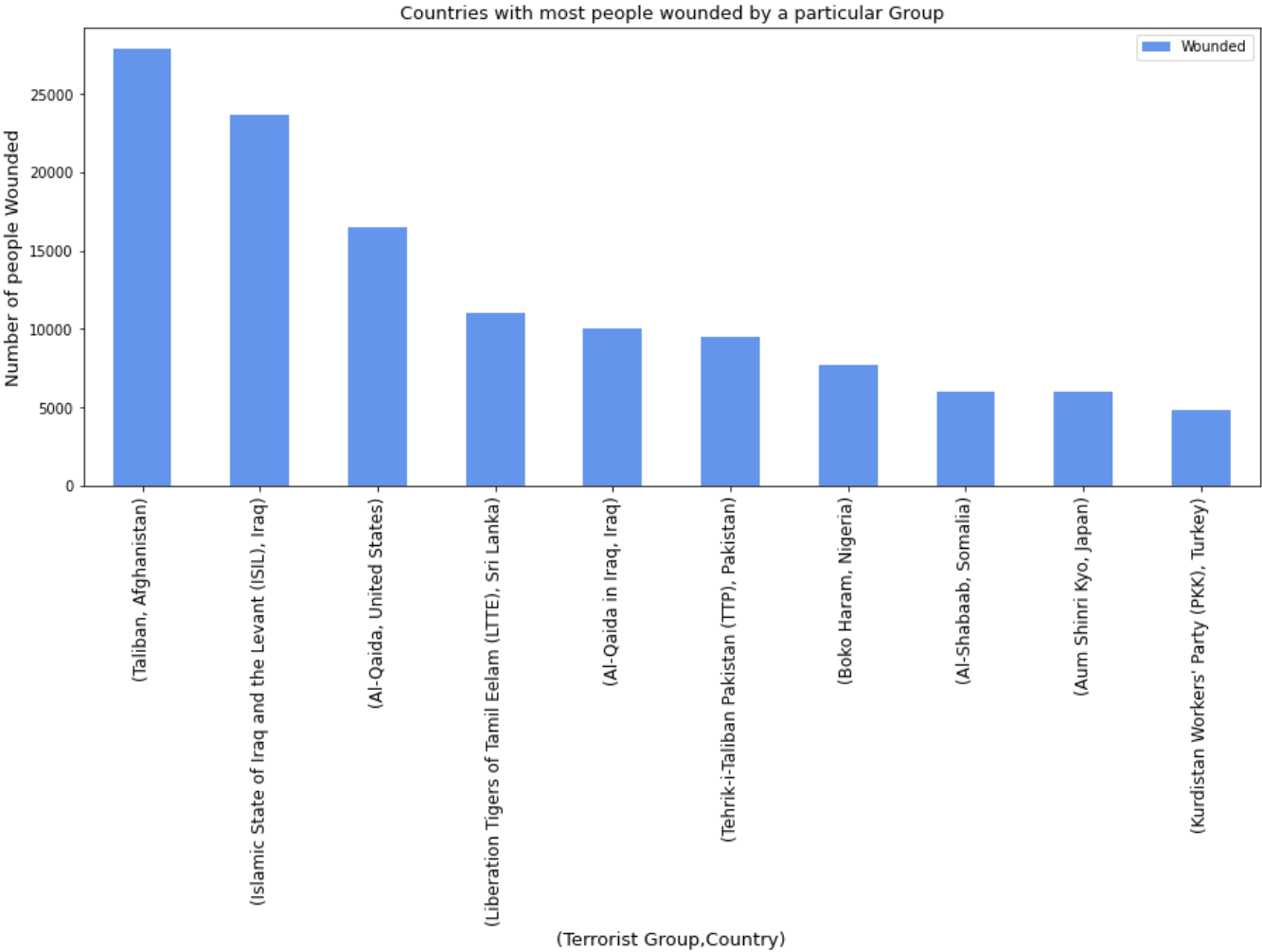
8.Humanity Affected (World-wide) by Terrorist Attacks from 1970 to 2017

1.Killed due to Terrorist Attacks

```
kill=df.loc[:,"Killed"].sum()
print("Total number of people killed due to Terrorist Attacks from 1970 to 2017 across the wo
```

    Total number of people killed due to Terrorist Attacks from 1970 to 2017 across the worl
     411868.0

2. Wounded due to Terrorist Attacks

```
wound=df.loc[:,"Wounded"].sum()
print("Total number of people killed due to Terrorist Attacks from 1970 to 2017 across the wo
```

    Total number of people killed due to Terrorist Attacks from 1970 to 2017 across the worl
     523869.0

3.Total Casualties (Killed + Wounded) due to Terrorist Attacks

```
casualty=df.loc[:,"Casualty"].sum()
print("Total number of Casualties due to Terrorist Attacks from 1970 to 2017 across the world
```

    Total number of Casualties due to Terrorist Attacks from 1970 to 2017 across the world
     935737.0

OBSERVATIONS

1.Year wise Attacks :
(i) Attacks
 (a) Most number of attacks: 16903 in 2014
 (b) Least number of attacks: 471 in 1971
(iii) Killed
 (a) Most number of people killed: 44490 in 2014

(b) Least number of people killed: 173 in 1971

(iv) Wounded

(a) Most number of people wounded: 44043 in 2015

(b) Least number of people wounded: 82 in 1971

2. Region wise Attacks :

(i) Attacks

(a) Most number of attacks: 50474 in "Middle East & North Africa"

(b) Least number of attacks: 282 in "Australasia & Oceania"

(ii) Killed

(a) Most number of people killed: 137642 in "Middle East & North Africa"

(b) Least number of people killed: 150 in "Australasia & Oceania"

(iii) Wounded

(a) Most number of people wounded: 214308 in "Middle East & North Africa"

(b) Least number of people wounded: 260 in "Australasia & Oceania"

3. Country wise Attacks [Top 10] :

(i) Attacks

(a) Most number of attacks: 24636 in "Iraq"

(b) Least number of attacks: 4292 in "Turkey"

(ii) Killed

(a) Most number of people killed: 78589 in "Iraq"

(b) Least number of people killed: 12053 in "El Salvador"

(iii) Wounded

(a) Most number of people wounded: 134690 in "Iraq"

(b) Least number of people wounded: 10328 in "Colombia"

4. City wise Attacks [Top 10] :

(i) Attacks

(a) Most number of attacks: 7589 in "Baghdad"

(b) Least number of attacks: 1019 in "Athens"

(ii) Killed

(a) Most number of people killed: 21151 in "Baghdad"

(b) Least number of people killed: 2125 in "Aleppo"

(iii) Wounded

(a) Most number of people wounded: 56725 in "Baghdad"

(b) Least number of people wounded: 4955 in "Mogadishu"

5. Terrorist Group wise Attacks [Top 10] :

   (i) Attacks

      (a) Most number of attacks : 7478 by "Taliban"

      (b) Least number of attacks : 2418 by "Boko Haram"

   (ii) Killed

      (a) Most number of people killed : 38923 by "Islamic State of Iraq and the Levant (ISIL)"

      (b) Least number of people killed : 5661 by "Revolutionary Armed Forces of Colombia (FARC)"

   (iii) Wounded

      (a) Most number of people wounded : 30672 by "Islamic State of Iraq and the Levant (ISIL)"

      (b) Least number of people wounded : 4908 by "Kurdistan Workers' Party (PKK)"

6. Target Type wise Attacks:

   (i) Attacks

      (a) Most number of attacks : 43511 over "Private Citizens & Property"

      (b) Least number of attacks : 263 over "Abortion Related"

   (ii) Killed

      (a) Most number of people killed : 140504 over "Private Citizens & Property"

      (b) Least number of people killed : 10 over "Abortion Related"

   (iii) Wounded

      (a) Most number of people wounded : 178672 over "Private Citizens & Property"

      (b) Least number of people wounded : 46 over "Abortion Related"

7. Group and Country wise Attacks [Top 10] :

   (i) Attacks

      (a) Most number of attacks : 7423 by "Taliban" in "Afghanistan"

      (b) Least number of attacks : 2087 by "Boko Haram" in "Nigeria"

   (ii) Casualties

      (a) Most number of casualties : 57140 by "Taliban" in "Afghanistan"

      (b) Least number of casualties : 12068 by "Farabundo Marti National Liberation Front (FMLN)" in "El Salvador"

   (iii) Killed

      (a) Most number of people killed : 31058 by "Islamic State of Iraq and the Levant (ISIL)" in "Iraq"

(b) Least number of people killed : 6014 by "Tehrik-i-Taliban Pakistan (TTP)" in "Pakistan"

(iv) Wounded

(a) Most number of people wounded : 27871 by "Taliban" in "Afghanistan"

(b) Least number of people wounded : 4795 by "Kurdistan Workers' Party (PKK)" in "Turkey"

8. Humanity Affected (World-wide) by Terrorist Attacks from 1970 to 2017:

(i) Total number of people killed due to Terrorist Attacks from 1970 to 2017 across the world : 411868

(ii) Total number of people killed due to Terrorist Attacks from 1970 to 2017 across the world : 523869

(iii) Total number of Casualties due to Terrorist Attacks from 1970 to 2017 across the world : 935737

We need to undeerstand that every human live is precious and we should take all efforts to curb terrorism and sponsors of terrorism Development of both socio econimic and educational are the only permanent solution to this problem. We should make common people aware about the terrorism.

.... THANK YOU.......................................

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