INTRODUCTION

Background:

- Britain took control of Palestine after the defeat of the Ottoman Empire in World War One. Palestine was home to both Jewish minority and Arab majority populations. Growing Tensions:
- Tensions rose due to the international community's plan for a Jewish "national home" in Palestine. Jewish immigrants increased in the 1920s-1940s, especially after the Holocaust. Violence escalated between Jews, Arabs, and against British rule.

UN Partition Plan:

- In 1947, the UN voted for separate Jewish and Arab states in Palestine, with Jerusalem as an international city. Jewish leaders accepted the plan, but Arabs rejected it, leading to its non-implementation. Creation of Israel and Conflict:
- In 1948, British rulers left, and Israel was declared. Palestinians objected, leading to war and Arab invasion. Hundreds of thousands of Palestinians were displaced, known as Al Nakba or the "Catastrophe."

Post-1948 Developments:

- Israel occupied East Jerusalem, West Bank, Golan Heights, Gaza, and Sinai Peninsula. Palestinian refugees settled in Gaza, West Bank, Jordan, Syria, and Lebanon. Israel established settlements in disputed areas, leading to international controversy.

Current Situation:

- Tensions persist between Israel and Palestinians in East Jerusalem, Gaza, and the West Bank. Gaza is controlled by Hamas; borders tightly controlled by Israel and Egypt. Palestinians face restrictions; Israel cites self-defense, leading to ongoing conflict and disputes over land and resources.

Defining the Problem Statement

- The Israel-Palestine conflict has been one of the most protracted and deeply rooted conflicts in modern history, marked by continuous tensions, violence, and political complexities. The lack of a lasting resolution has led to widespread suffering, loss of life, and economic instability in the region. To contribute to the understanding of this multifaceted conflict, there is a pressing need for comprehensive data analysis that can uncover underlying patterns, identify key drivers of the conflict, and offer insights into potential pathways for peace.
- By conducting a rigorous data analysis encompassing these dimensions, this study aims to provide a comprehensive understanding of the Israel-Palestine conflict.

```
#Importing necessary library
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import plotly.express as px
```

```
#Importing the dataset
data = pd.read_csv('Palestine Body Count.csv')
data
```

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000.0	DECEMBER	781	NaN	51.0	8.0
1	2000.0	NOVEMBER	3838	NaN	112.0	22.0
2	2000.0	OCTOBER	5984	NaN	104.0	10.0
3	2000.0	SEPTEMBER	NaN	NaN	16.0	1.0
4	2001.0	DECEMBER	304	NaN	67.0	36.0

Dataset description

- Year: Says from which year to year war has been happened
- Month: for every year the month of the situations is also captured
- palestine/Israelis Injured: No. of people got injured in war
- palestine/Israelis Killed: No. of people got killed in war

250	NaN	NaN	NaN	NaN	NaN	NaN

```
#shape of the dataset
data.shape
```

```
(251, 6)
```

```
#No. of elements in the dataset
data.size
```

```
1506
```

```
#information on the dataset
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 251 entries, 0 to 250
Data columns (total 6 columns):
 #   Column                Non-Null Count  Dtype  
---  ------                --------------  -----  
 0   Year                  249 non-null    float64
 1   Month                 249 non-null    object 
 2   Palestinians Injuries  195 non-null    object 
 3   Israelis Injuries      132 non-null    object 
 4   Palestinians Killed    249 non-null    float64
 5   Israelis Killed        249 non-null    float64
dtypes: float64(3), object(3)
memory usage: 11.9+ KB
```

```
data
```

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000.0	DECEMBER	781	NaN	51.0	8.0
1	2000.0	NOVEMBER	3838	NaN	112.0	22.0
2	2000.0	OCTOBER	5984	NaN	104.0	10.0
3	2000.0	SEPTEMBER	NaN	NaN	16.0	1.0
4	2001.0	DECEMBER	304	NaN	67.0	36.0
...	...	...	...	...	...	...
246	2021.0	MARCH	NaN	NaN	4.0	0.0
247	2021.0	APRIL	NaN	NaN	1.0	0.0
248	2021.0	MAY	NaN	NaN	26.0	3.0
249	NaN	NaN	NaN	NaN	NaN	NaN
250	NaN	NaN	NaN	NaN	NaN	NaN

251 rows × 6 columns

```
#summary of the dataset
data.describe()
```

	Year	Palestinians Killed	Israelis Killed
count	249.000000	249.000000	249.000000
mean	2010.542169	40.160643	5.120482
std	6.014702	129.148851	11.653323
min	2000.000000	0.000000	0.000000
25%	2005.000000	4.000000	0.000000
50%	2011.000000	12.000000	1.000000
75%	2016.000000	37.000000	5.000000
max	2021.000000	1590.000000	122.000000

```
#getting the column names
data.columns
```

```
Index(['Year', 'Month', 'Palestinians Injuries', 'Israelis Injuries',
       'Palestinians Killed', 'Israelis Killed'],
      dtype='object')
```

```
#unique values in the dataset
data.nunique()
```

```
Year                     22
Month                    14
Palestinians Injuries    170
Israelis Injuries         55
Palestinians Killed       77
Israelis Killed           33
dtype: int64
```

```
#checking for missing values in the dataset
data.isnull().sum()
```

```
Year                      2
Month                     2
Palestinians Injuries     56
Israelis Injuries        119
Palestinians Killed        2
Israelis Killed            2
dtype: int64
```

```
#checking for duplicate value in the dataset
data.duplicated().sum()
```

```
1
```

```
#dropping unnecessary rows
data.drop_duplicates()
data
```

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000.0	DECEMBER	781	NaN	51.0	8.0
1	2000.0	NOVEMBER	3838	NaN	112.0	22.0
2	2000.0	OCTOBER	5984	NaN	104.0	10.0
3	2000.0	SEPTEMBER	NaN	NaN	16.0	1.0
4	2001.0	DECEMBER	304	NaN	67.0	36.0
...	...	...	...	...	...	...
246	2021.0	MARCH	NaN	NaN	4.0	0.0

```
#deleting the last two rows
data.drop([249,250],axis=0,inplace=True)
data
```

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000.0	DECEMBER	781	NaN	51.0	8.0
1	2000.0	NOVEMBER	3838	NaN	112.0	22.0
2	2000.0	OCTOBER	5984	NaN	104.0	10.0
3	2000.0	SEPTEMBER	NaN	NaN	16.0	1.0
4	2001.0	DECEMBER	304	NaN	67.0	36.0
...	...	...	...	...	...	...
244	2021.0	JANUARY	NaN	NaN	4.0	0.0
245	2021.0	FEBRUARY	NaN	NaN	1.0	0.0
246	2021.0	MARCH	NaN	NaN	4.0	0.0
247	2021.0	APRIL	NaN	NaN	1.0	0.0
248	2021.0	MAY	NaN	NaN	26.0	3.0

249 rows × 6 columns

```
#information of the data
data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 249 entries, 0 to 248
```

```
Data columns (total 6 columns):
 #   Column                 Non-Null Count  Dtype  
---  ------                 --------------  -----  
 0   Year                   249 non-null    float64
 1   Month                  249 non-null    object 
 2   Palestinians Injuries  195 non-null    object 
 3   Israelis Injuries      132 non-null    object 
 4   Palestinians Killed    249 non-null    float64
 5   Israelis Killed        249 non-null    float64
dtypes: float64(3), object(3)
memory usage: 11.8+ KB
```

```
#seeing the summary of the data
data.describe()
```

	Year	Palestinians Killed	Israelis Killed
count	249.000000	249.000000	249.000000
mean	2010.542169	40.160643	5.120482
std	6.014702	129.148851	11.653323
min	2000.000000	0.000000	0.000000
25%	2005.000000	4.000000	0.000000
50%	2011.000000	12.000000	1.000000
75%	2016.000000	37.000000	5.000000
max	2021.000000	1590.000000	122.000000

OBSERVATIONS

1. There are many missing values in the dataset especially in Palestinians Injuries,Israelis Injuries.
2. Dropping last 2 rows since it has no values
3. planned to fill the missing value with forward and backward fill.

```
data['Palestinians Injuries'].replace('(incl. Aug)',0 ,inplace = True)
data['Palestinians Injuries'].replace('(incl. Jun)',0 ,inplace = True)
data['Israelis Injuries'].replace('(incl. Aug)',0 ,inplace = True)
data['Israelis Injuries'].replace('(incl. Jun)',0 ,inplace = True)
```

```
print(data['Israelis Injuries'].median())
print(data['Palestinians Injuries'].median())
```

```
14.5
198.0
```

```
#filling the missing value
data['Israelis Injuries'] = data['Israelis Injuries'].ffill().bfill()
data['Palestinians Injuries'] = data['Palestinians Injuries'].ffill().bfill()
data
```

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000.0	DECEMBER	781	88	51.0	8.0
1	2000.0	NOVEMBER	3838	88	112.0	22.0
2	2000.0	OCTOBER	5984	88	104.0	10.0
3	2000.0	SEPTEMBER	5984	88	16.0	1.0
4	2001.0	DECEMBER	304	88	67.0	36.0
...	...	...	...	...	...	...
244	2021.0	JANUARY	44	17	4.0	0.0
245	2021.0	FEBRUARY	44	17	1.0	0.0
246	2021.0	MARCH	44	17	4.0	0.0
247	2021.0	APRIL	44	17	1.0	0.0
248	2021.0	MAY	44	17	26.0	3.0

249 rows × 6 columns

```
#converting the object/float to int
data['Palestinians Injuries'] = data['Palestinians Injuries'].astype(int)
data['Israelis Injuries'] = data['Israelis Injuries'].astype(int)
data['Palestinians Killed'] = data['Palestinians Killed'].astype(int)
data['Israelis Killed'] = data['Israelis Killed'].astype(int)
```

```
data.describe()
```

	Year	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
count	249.000000	249.00000	249.000000	249.000000	249.000000
mean	2010.542169	483.97992	43.056225	40.160643	5.120482
std	6.014702	1503.87409	150.641735	129.148851	11.653323
min	2000.000000	0.00000	0.000000	0.000000	0.000000
25%	2005.000000	86.00000	12.000000	4.000000	0.000000
50%	2011.000000	161.00000	17.000000	12.000000	1.000000

DATA VISUALIZATION

```
data
```

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000.0	DECEMBER	781	88	51	8
1	2000.0	NOVEMBER	3838	88	112	22
2	2000.0	OCTOBER	5984	88	104	10
3	2000.0	SEPTEMBER	5984	88	16	1
4	2001.0	DECEMBER	304	88	67	36
...	...	...	...	...	...	...
244	2021.0	JANUARY	44	17	4	0
245	2021.0	FEBRUARY	44	17	1	0
246	2021.0	MARCH	44	17	4	0
247	2021.0	APRIL	44	17	1	0
248	2021.0	MAY	44	17	26	3

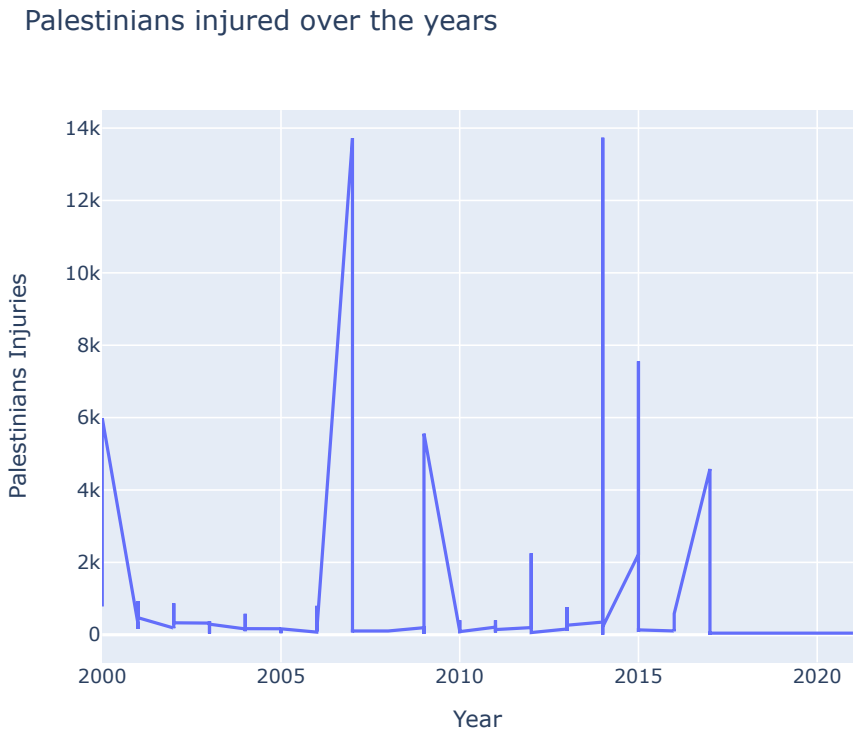
249 rows × 6 columns

Plan of attack

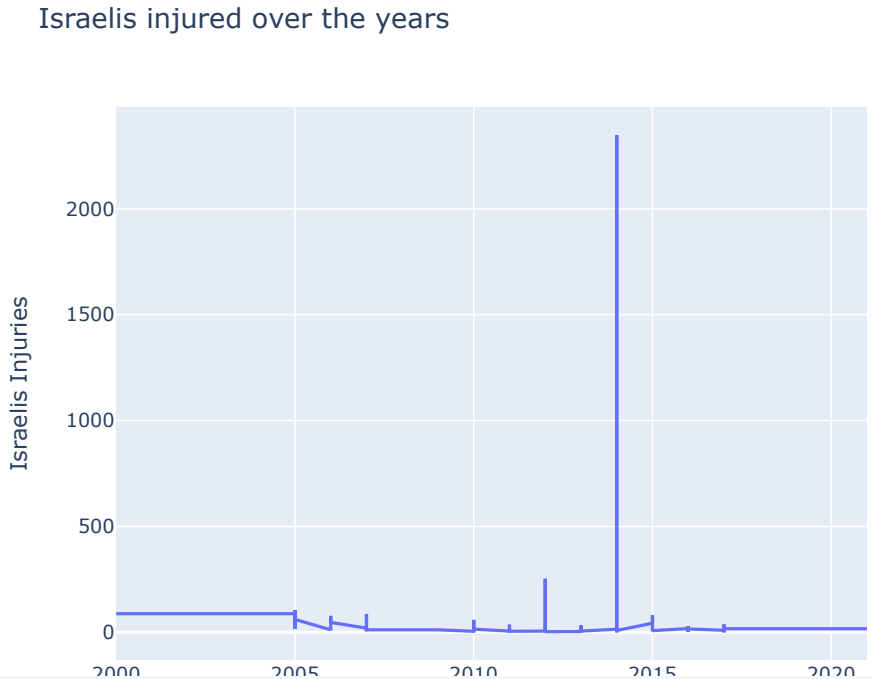
1. year vs injuries

2. year vs killed
3. month vs injuries
4. month vs killed
5. who got more injured
6. who got more killed

```
#timeline of injuries occured
px.line(data,data['Year'],data['Palestinians Injuries'],title='Palestinians injured over the years')
```




```
px.line(data,data['Year'],data['Israelis Injuries'],title='Israelis injured over the years')
```

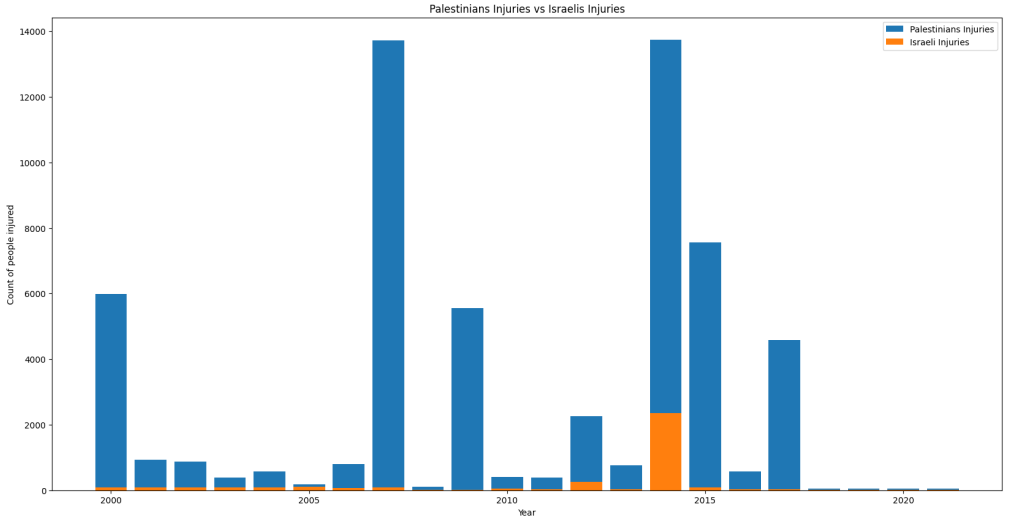



```
pi_s = data['Palestinians Injuries'].sum()
ii_s = data['Israelis Injuries'].sum()
```

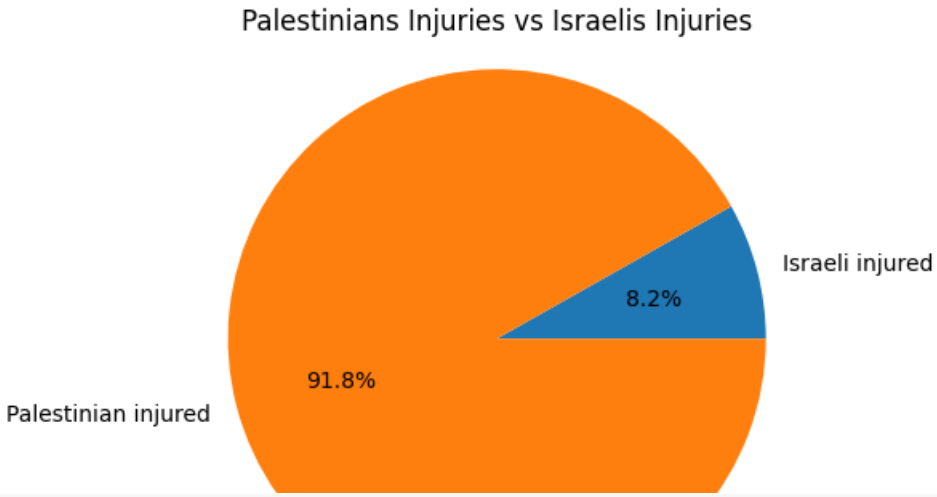
```
print(pi_s)
print(ii_s)
```

```
120511
10721
```

```
plt.figure(figsize=(20,10))
plt.bar(data['Year'],data['Palestinians Injuries'] , label = "Palestinians Injuries" )
plt.bar(data['Year'],data['Israelis Injuries'] , label = "Israeli Injuries")
plt.xlabel('Year')
plt.ylabel('Count of people injured')
plt.title('Palestinians Injuries vs Israelis Injuries')
plt.legend()
plt.show()
```




```
injured=[data["Israelis Injuries"].sum(),data["Palestinians Injuries"].sum()]

label = ['Israeli injured','Palestinian injured']

plt.pie(injured,labels=label,autopct='%1.1f%%')
plt.title('Palestinians Injuries vs Israelis Injuries')
plt.axis('equal')
plt.show()
```

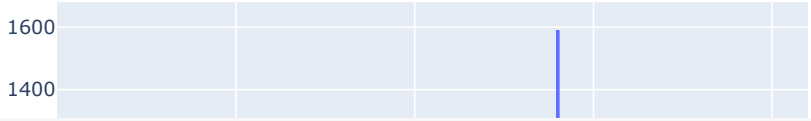



```
#statistical test
from scipy import stats
stat, p = stats.pearsonr(data['Palestinians Injuries'], data['Israelis Injuries'])
print('stat=%.3f, p=%.3f' % (stat, p))
```

```
stat=0.580, p=0.000
```

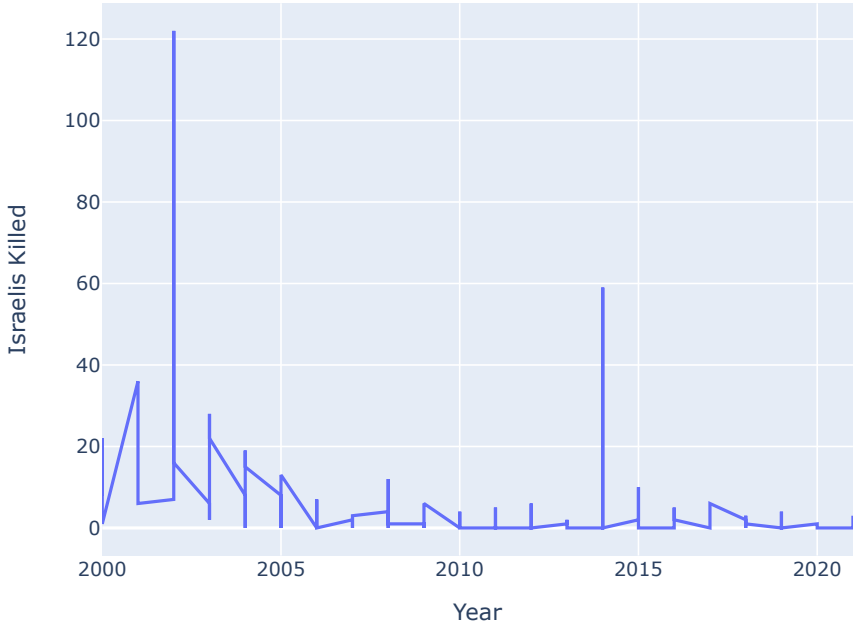
```
#timeline of injuries occured
px.line(data,data['Year'],data['Palestinians Killed'],title='Palestinians killed over the years')
```

Palestinians killed over the years




```
px.line(data,data['Year'],data['Israelis Killed'],title='Israelis injured over the years')
```

Israelis injured over the years

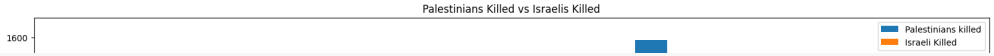



```
pi_k = data['Palestinians Killed'].sum()
ii_k = data['Israelis Killed'].sum()
```

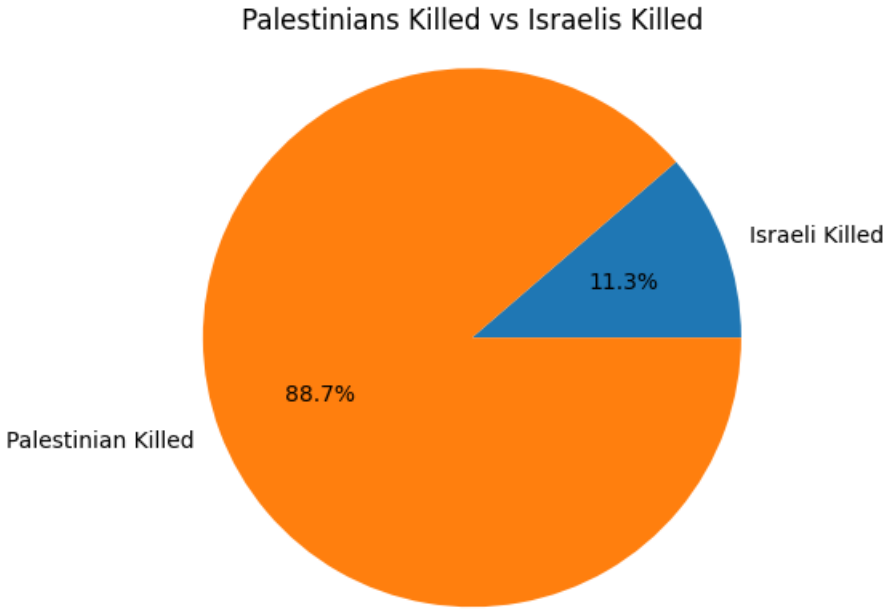
```
print(pi_k)
print(ii_k)
```

```
10000
1275
```

```
plt.figure(figsize=(20,10))
plt.bar(data['Year'],data['Palestinians Killed'] , label = "Palestinians killed" )
plt.bar(data['Year'],data['Israelis Killed'] , label = "Israeli Killed")
plt.xlabel('Year')
plt.ylabel('Count of people Killed')
plt.title('Palestinians Killed vs Israelis Killed')
plt.legend()
plt.show()
```




```
injured=[data["Israelis Killed"].sum(),data["Palestinians Killed"].sum()]

label = ['Israeli Killed','Palestinian Killed']

plt.pie(injured,labels=label,autopct='%1.1f%%')
plt.title('Palestinians Killed vs Israelis Killed')
plt.axis('equal')
plt.show()
```

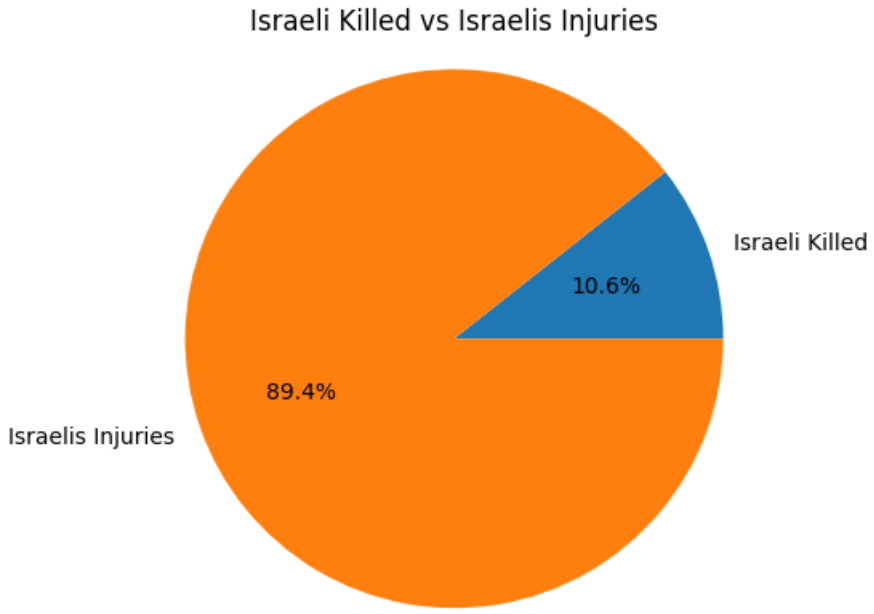



```
#statistical test
from scipy import stats
stat, p = stats.pearsonr(data['Palestinians Killed'], data['Israelis Killed'])
print('stat=%.3f, p=%.3f' % (stat, p))
```

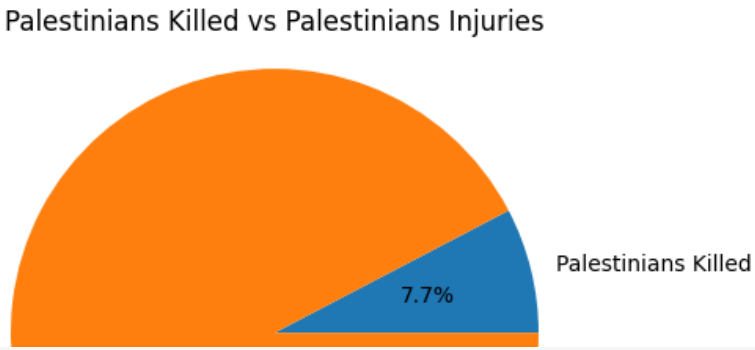
```
stat=0.395, p=0.000
```

```
isr=[data["Israelis Killed"].sum(),data["Israelis Injuries"].sum()]

label = ['Israeli Killed','Israelis Injuries']
```

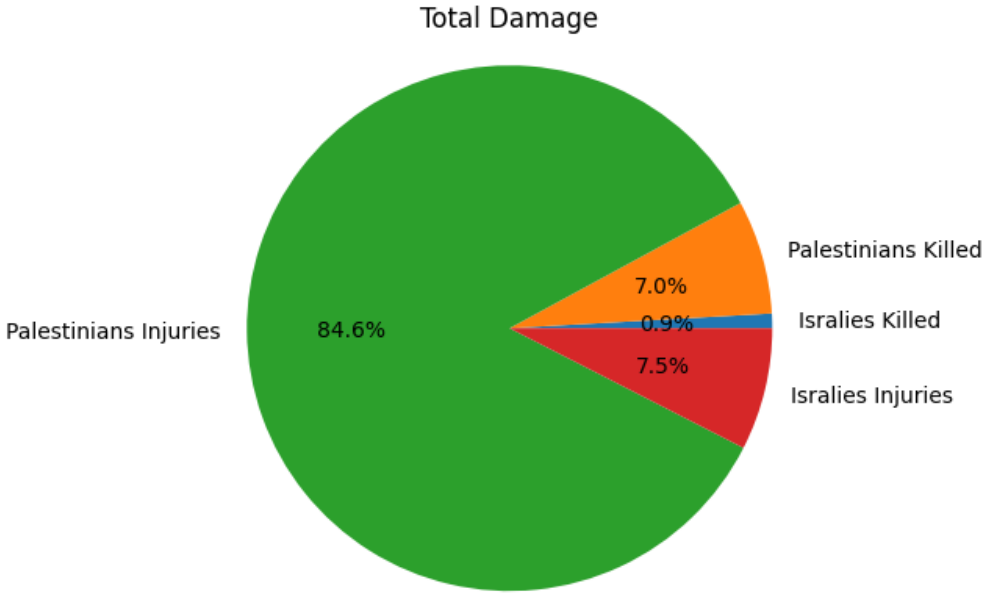
```
plt.pie(isr,labels=label,autopct='%1.1f%%')
plt.title('Israeli Killed vs Israelis Injuries')
plt.axis('equal')
plt.show()
```



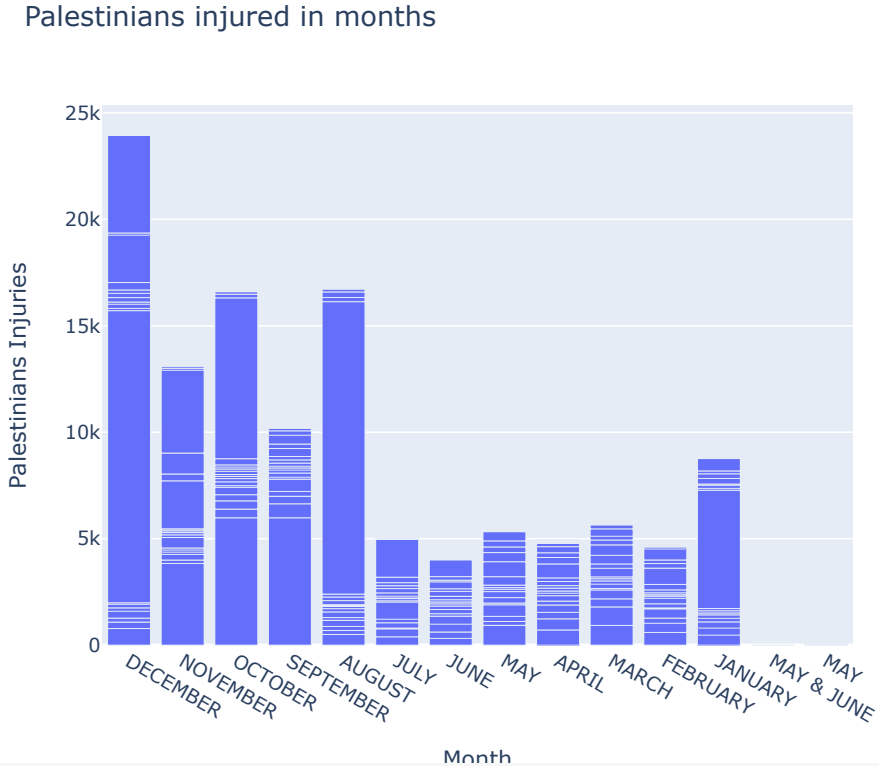

```
pal=[data["Palestinians Killed"].sum(),data["Palestinians Injuries"].sum()]

label = ['Palestinians Killed','Palestinians Injuries']

plt.pie(pal,labels=label,autopct='%1.1f%%')
plt.title('Palestinians Killed vs Palestinians Injuries')
plt.axis('equal')
plt.show()
```



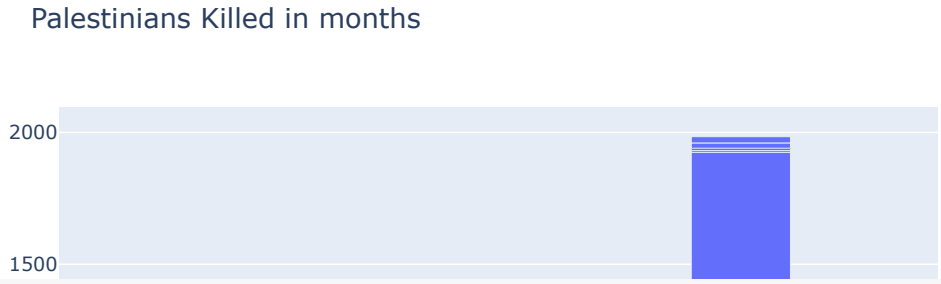

```
total = [data["Israelis Killed"].sum(),data["Palestinians Killed"].sum(),data["Palestinians Injuries"].sum(),data["Israelis Injuries"].sum()]
label = ['Isralies Killed','Palestinians Killed','Palestinians Injuries','Isralies Injuries']

plt.pie(total,labels=label,autopct='%1.1f%%')
plt.title('Total Damage')
plt.axis('equal')
plt.show()
```



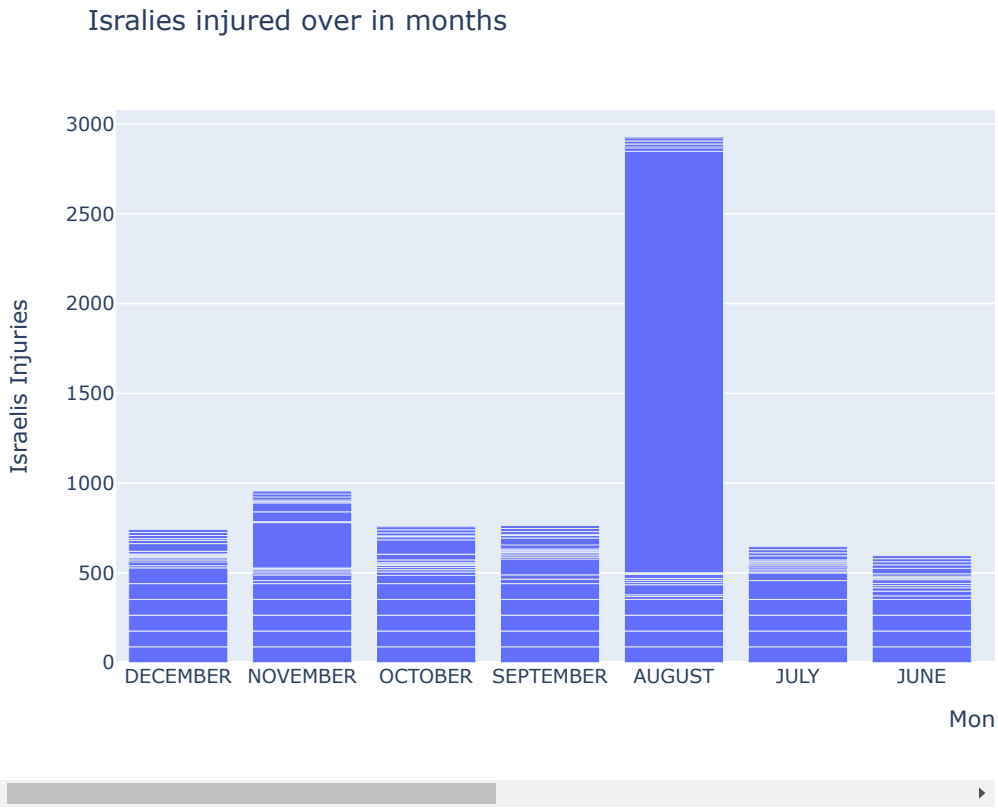

```
px.bar(data,data['Month'],data['Palestinians Injuries'],title='Palestinians injured in months')
```




```
px.bar(data,data['Month'],data['Palestinians Killed'],title='Palestinians Killed in months')
```




```
px.bar(data,data['Month'],data['Israelis Injuries'],title='Isralies injured over in months')
```




```
px.bar(data,data['Month'],data['Israelis Killed'],title='Isralies killed in months')
```

OBSERVATIONS

- It is statistically proven that there is a linear relationship in Injuries occured between palestine and israil both have increasing pattern.
- Damage faced by palestine is more when compared to israel.
- In 2002, Israel army launched Operation Defensive Shield to reoccupy the West Bank and parts of Gaza. This was in response to a suicide bombing that killed 30 people
- In 2008, Israel launched a military campaign in the Gaza Strip called Operation Cast Lead. The campaign lasted 22 days and was codenamed Operation Cast Lead. The goal of the campaign was to stop Hamas rocket attacks on southern Israel and arms smuggling into Gaza.
- The Gaza War took place from December 2008 to January 2009. It was one of three major escalations between Israel and armed Palestinian groups in Gaza
- The 2014 Gaza War, also known as Operation Protective Edge, was a military operation launched by Israel on July 8, 2014. The war lasted 50 days, ending on August 26, 2014 with a ceasefire brokered by Egypt.

Countries Stand on this War 2023

Summary of which countries are supporting Israel:

1. The US
2. The UK
3. Australia
4. France
5. Norway
6. Austria
7. Germany
8. India
9. Canada
10. Poland

Countries Supporting Israel Countries Supporting Hamas:

1. Iran
2. Qatar
3. Turkey
4. Lebanon
5. Syria
6. Yemen
7. Arab League
8. Jordan

Understanding “which countries are supporting Israel” and the intricacies of the Hamas-Israel conflict is paramount to grasp the current Middle East dynamics. With 84 nations backing Israel and several others supporting Hamas, the situation remains intricate. As the geopolitical landscape continues to shift, staying informed is more important than ever.

Source: Internet and NEWS

CONCLUSION

By Summarizing the total collateral damage between Israel and Palestine

1.Over 120511 Palestine people and 10721 Israelis got injured in total of 131232 from 2000 to 2021 excluding the current year 2023

2.Over 10000 Palestine people and 1275 Israelis got killed in total of 11275 from 2000 to 2021 excluding the current year 2023

3.Total casualties that got affected due to this collateral damage are 142507

4.In 2023, as reported till 10-10-2023, over 1000 people got killed and 3418 got injured that too within few days is a great impact.

Finally resulting in innocent people are killed in the Israeli–Palestinian conflict because rockets are launched from Gaza at innocent civilians in Israel. Israel has a duty to protect its people from “Palestinian” settler-colonialist aggression; As Israel also annoucing war against Palestine causing innocent people getting killed,many missing their family and making thier daily life harder and impossible to live.

In recent years, the conflict has escalated, with both Israel and the Palestinians taking steps that have made a two-state solution seem more and more elusive. In 2023, the Israeli government passed a law that would officially annex parts of the West Bank, a move that was widely condemned by the international community.

The future of the Israeli-Palestinian conflict is uncertain. Both sides appear to be entrenched in their positions, and it is difficult to see how a peaceful solution can be reached. However, it is important to remember that violence will not solve anything. Only through dialogue and compromise can a lasting peace be achieved.

Here are some possible solutions to the Israeli-Palestinian conflict:

Two-state solution:

This solution would involve the creation of an independent Palestinian state alongside Israel. This is the solution that has been endorsed by the international community, but it is becoming increasingly difficult to achieve.

One-state solution:

This solution would involve the creation of a single state in which Israelis and Palestinians would live together as equal citizens. This solution is opposed by many Israelis, but it may be the only viable option if a two-state solution is not possible.

Confederation:

This solution would involve the creation of a confederation between Israel and a future Palestinian state. This would allow the two states to cooperate on issues such as security and trade, while maintaining their independence. No matter what solution is ultimately reached, it will be clear that the Israeli-Palestinian conflict is a problem that can only be solved through dialogue and compromise. Violence will only make the situation worse.