Human Cost of Israel-Palestine Conflict (2000 - 2021) Analysis

In [1]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
import plotly.express as px
import plotly.graph_objects as go
```

In [2]:
```
import warnings
warnings.filterwarnings('ignore')
```

In [3]:
```
df = pd.read_csv("israel_palestine_conflict.csv")
```

In [4]:
```
df.head()
```

Out[4]:

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000	DECEMBER	781	NaN	51	8
1	2000	NOVEMBER	3838	NaN	112	22
2	2000	OCTOBER	5984	NaN	104	10
3	2000	SEPTEMBER	NaN	NaN	16	1
4	2001	DECEMBER	304	NaN	67	36

In [5]:
```
df.tail()
```

Out[5]:

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
244	2021	JANUARY	NaN	NaN	4	0
245	2021	FEBRUARY	NaN	NaN	1	0
246	2021	MARCH	NaN	NaN	4	0
247	2021	APRIL	NaN	NaN	1	0
248	2021	MAY	NaN	NaN	26	3

In [6]:
```
df.shape
```

Out[6]:
```
(249, 6)
```

In [7]:
```
df.columns
```

Out[7]:
```
Index(['Year', 'Month', 'Palestinians Injuries', 'Israelis Injuries',
       'Palestinians Killed', 'Israelis Killed'],
      dtype='object')
```

In [8]:
```
df.duplicated().sum()
```

Out[8]:
```
0
```

In [9]:
```
df.isnull().sum()
```

Out[9]:
```
Year                     0
Month                    0
Palestinians Injuries     54
Israelis Injuries        117
Palestinians Killed        0
Israelis Killed            0
dtype: int64
```

In [10]:
```
df.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    int64 
 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    int64 
 5   Israelis Killed        249 non-null    int64 
dtypes: int64(3), object(3)
memory usage: 11.8+ KB
```

In [11]:
```
df = df.fillna({
    'Palestinians Injuries': '0',
    'Israelis Injuries': '0'
})
```

In [12]:
```
numerical_columns = ['Palestinians Injuries', 'Israelis Injuries', 'Palestinians Kille
df[numerical_columns] = df[numerical_columns].replace({',': ''}, regex=True)
df[numerical_columns] = df[numerical_columns].apply(pd.to_numeric, errors='coerce')
```

In [13]:
```
df
```

Out[13]:

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
0	2000	DECEMBER	781.0	0.0	51	8
1	2000	NOVEMBER	3838.0	0.0	112	22
2	2000	OCTOBER	5984.0	0.0	104	10
3	2000	SEPTEMBER	0.0	0.0	16	1
4	2001	DECEMBER	304.0	0.0	67	36
...	...	...	...	...	...	...
244	2021	JANUARY	0.0	0.0	4	0
245	2021	FEBRUARY	0.0	0.0	1	0
246	2021	MARCH	0.0	0.0	4	0
247	2021	APRIL	0.0	0.0	1	0
248	2021	MAY	0.0	0.0	26	3

249 rows × 6 columns

In [14]:
```
df.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    int64
 1   Month                  249 non-null    object
 2   Palestinians Injuries  247 non-null    float64
 3   Israelis Injuries      247 non-null    float64
 4   Palestinians Killed    249 non-null    int64
 5   Israelis Killed        249 non-null    int64
dtypes: float64(2), int64(3), object(1)
memory usage: 11.8+ KB
```

In [15]:
```
df.describe()
```

Out[15]:

	Year	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed
count	249.000000	247.000000	247.000000	249.000000	249.000000
mean	2010.542169	451.315789	20.890688	40.160643	5.120482
std	6.014702	1471.798713	150.387900	129.148851	11.653323
min	2000.000000	0.000000	0.000000	0.000000	0.000000
25%	2005.000000	61.500000	0.000000	4.000000	0.000000
50%	2011.000000	161.000000	3.000000	12.000000	1.000000
75%	2016.000000	302.500000	15.000000	37.000000	5.000000
max	2021.000000	13735.000000	2347.000000	1590.000000	122.000000

In [16]:
```
df.nunique()
```

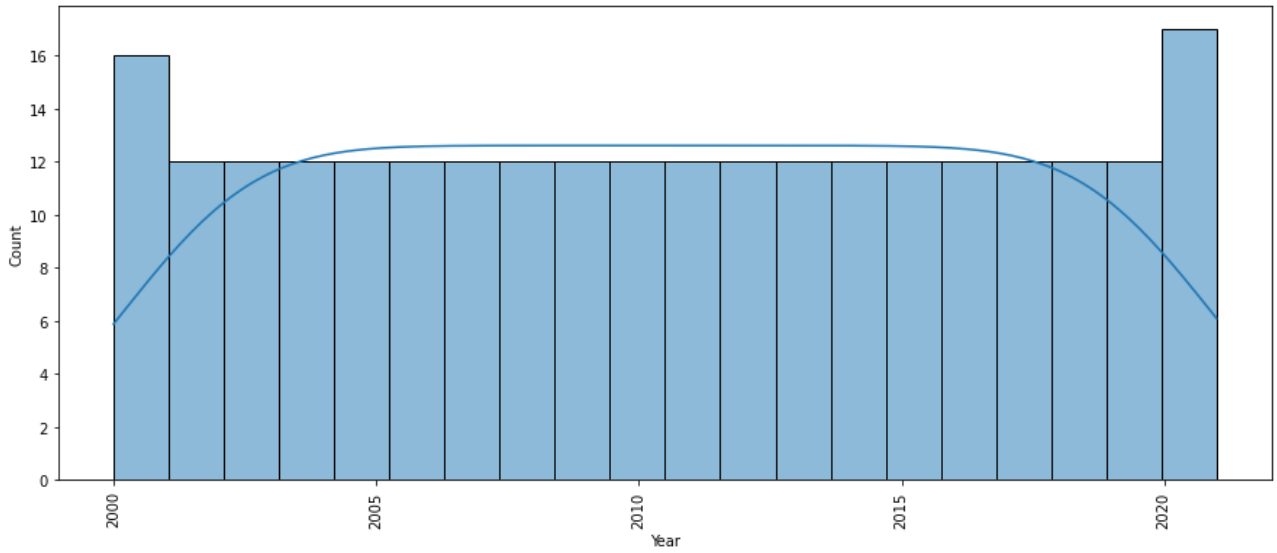
```
df.nunique()
```

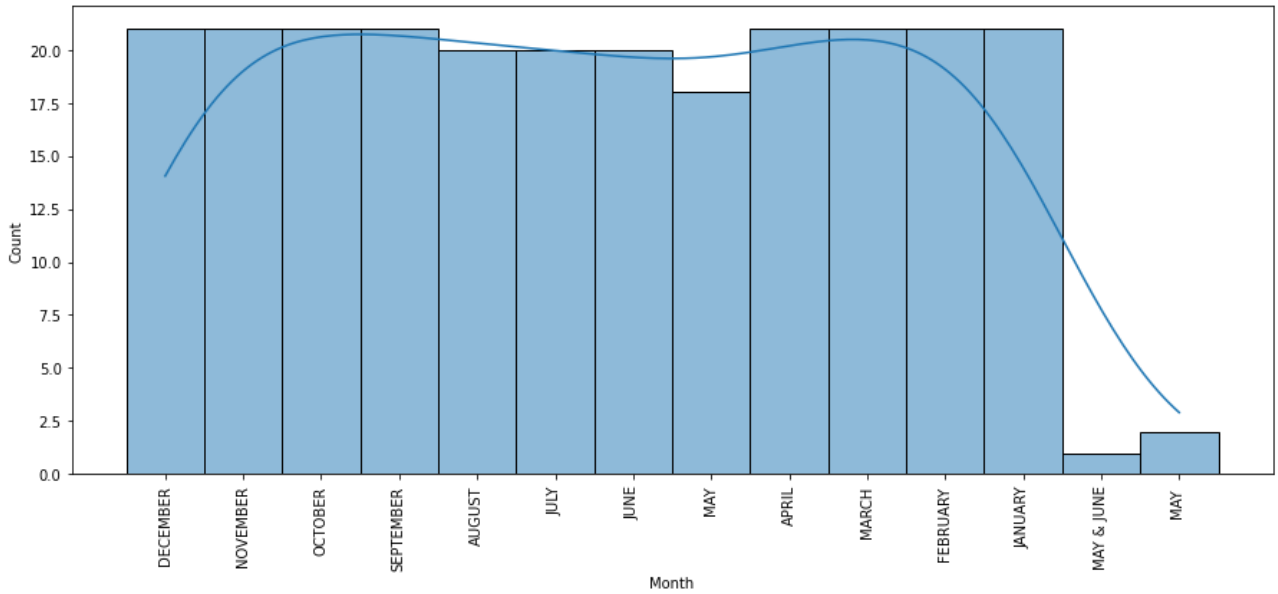
Out[16]:

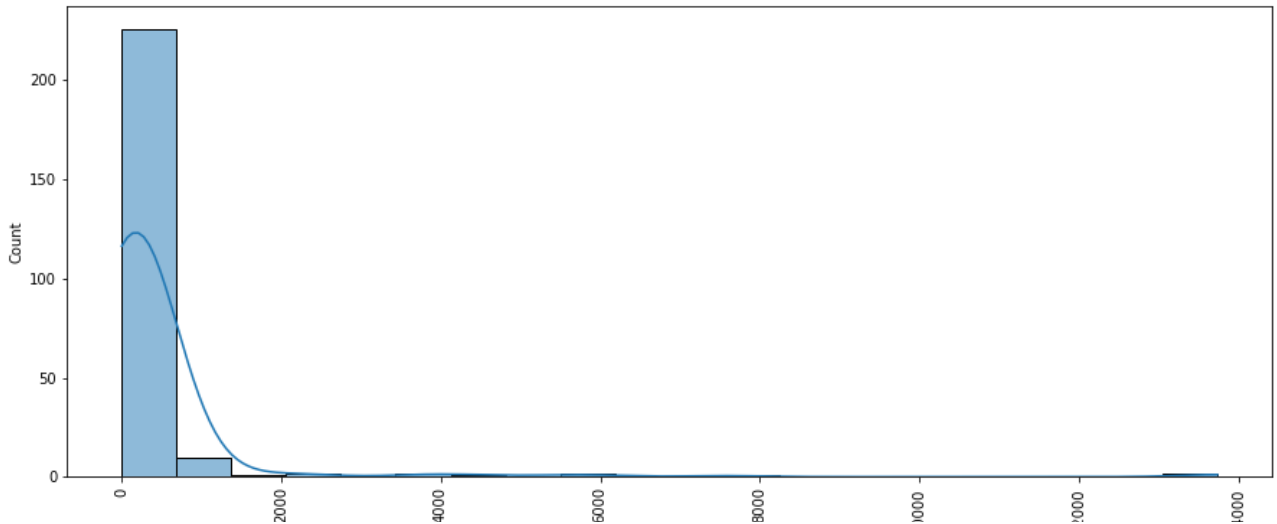
```
Year                    22
Month                   14
Palestinians Injuries  169
Israelis Injuries       53
Palestinians Killed     77
Israelis Killed         33
dtype: int64
```

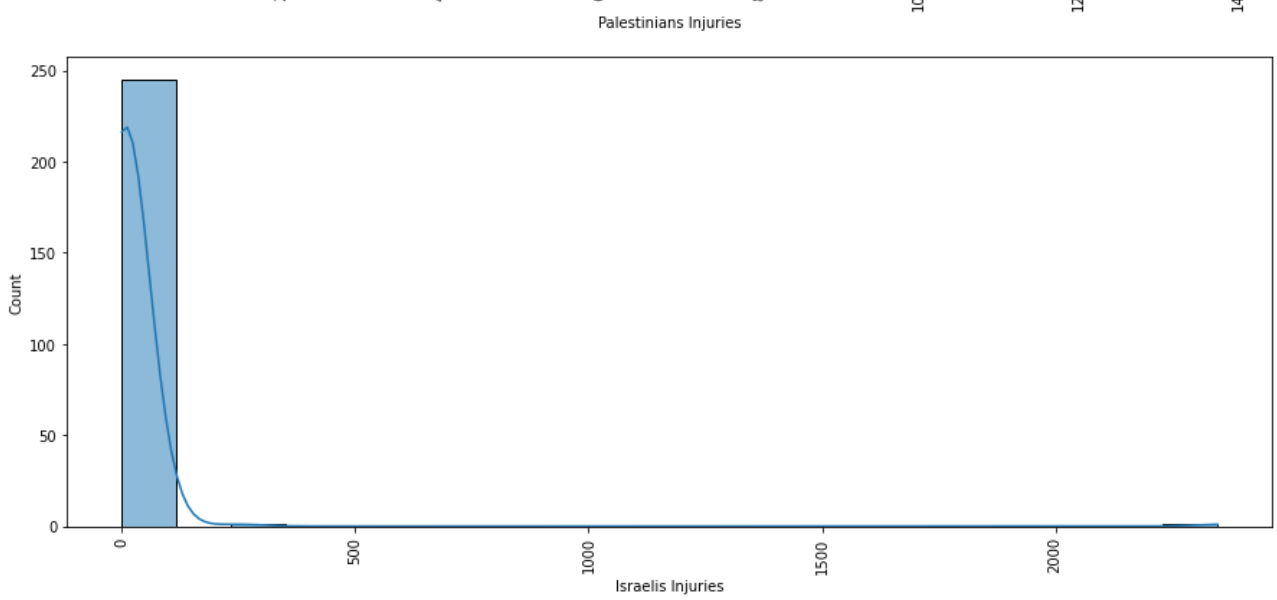
In [17]:

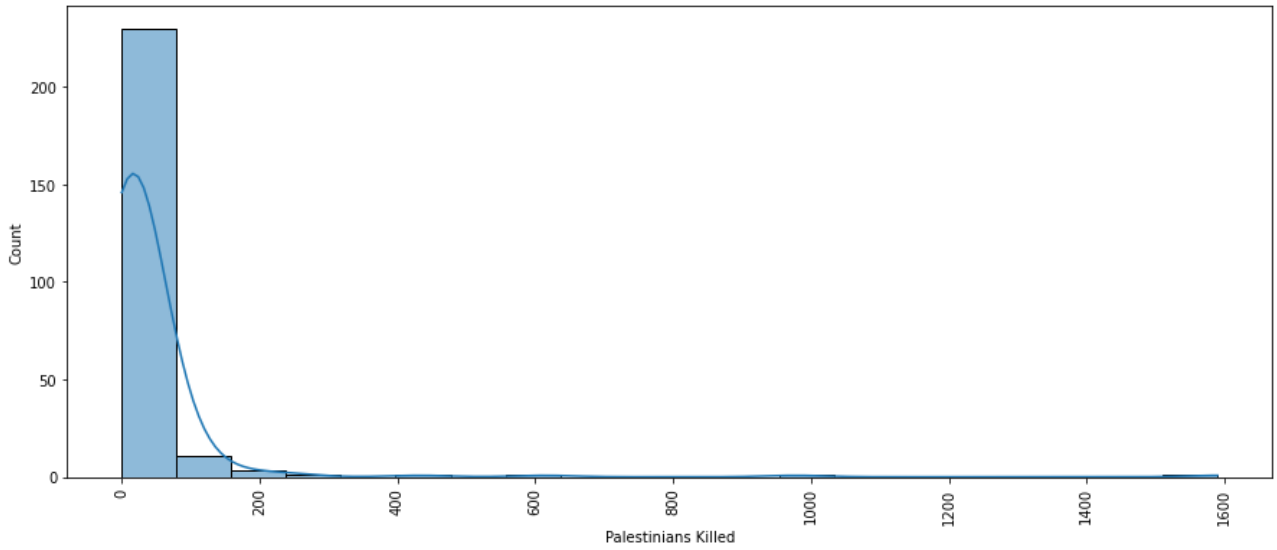
```
for i in df.columns:
    plt.figure(figsize=(15,6))
    sns.histplot(df[i], kde = True, bins = 20, palette = 'hls')
    plt.xticks(rotation = 90)
    plt.show()
```

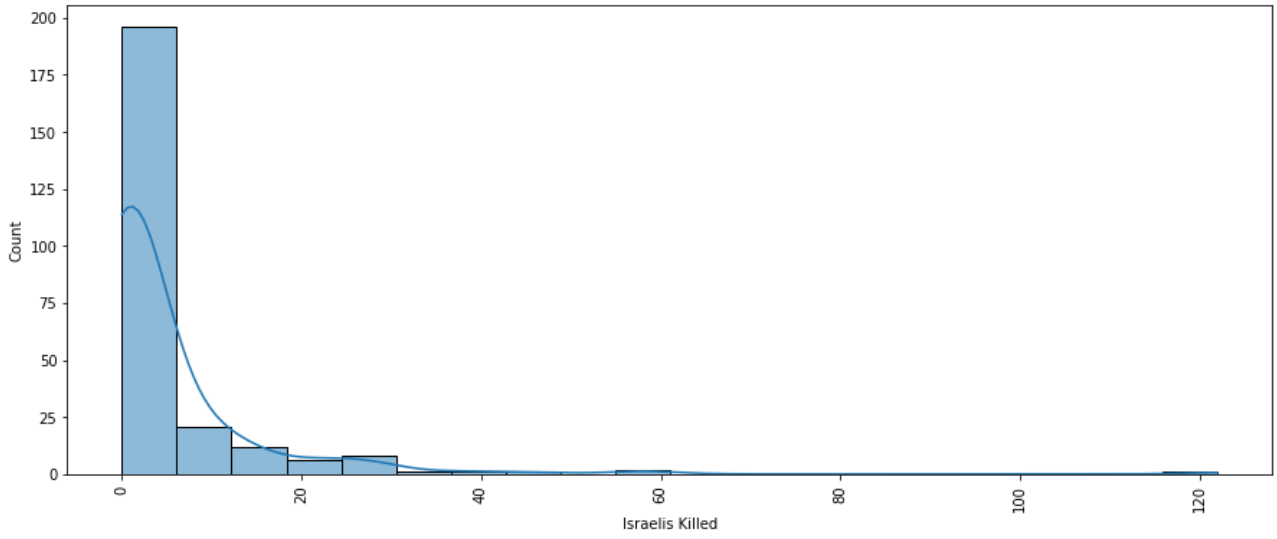






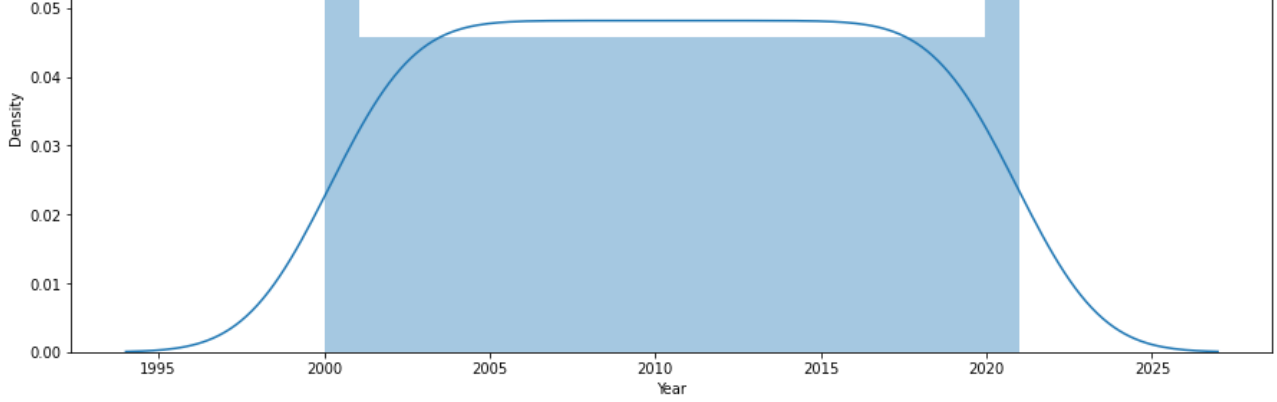


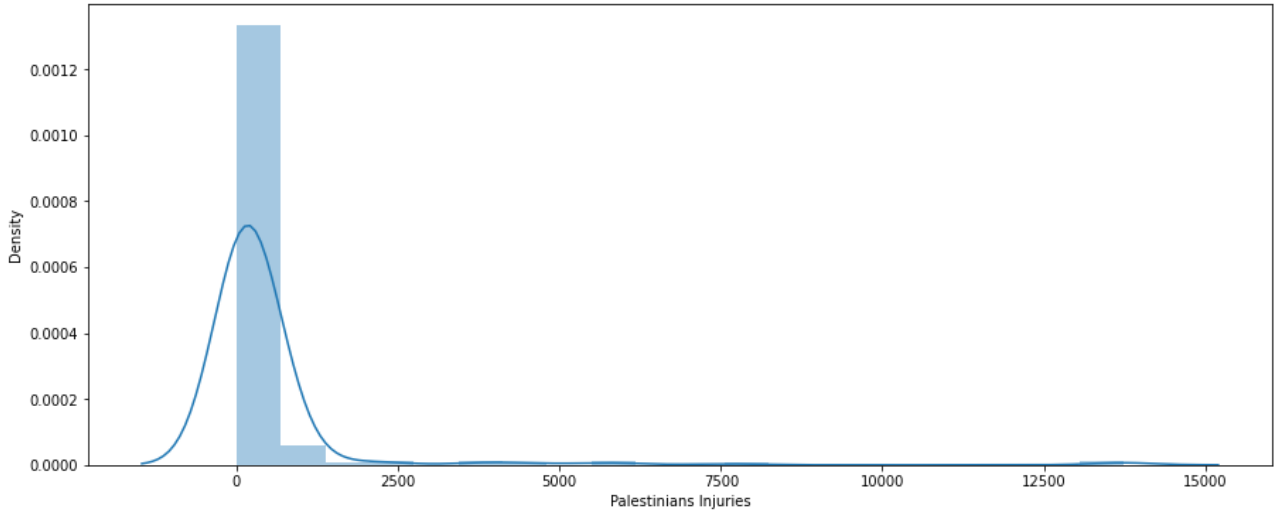


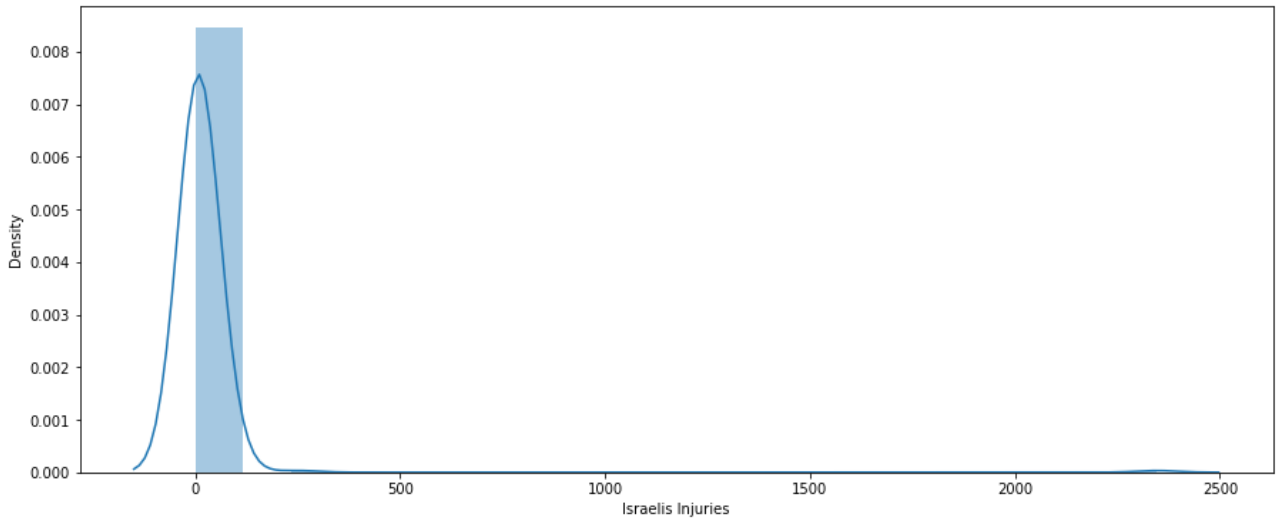


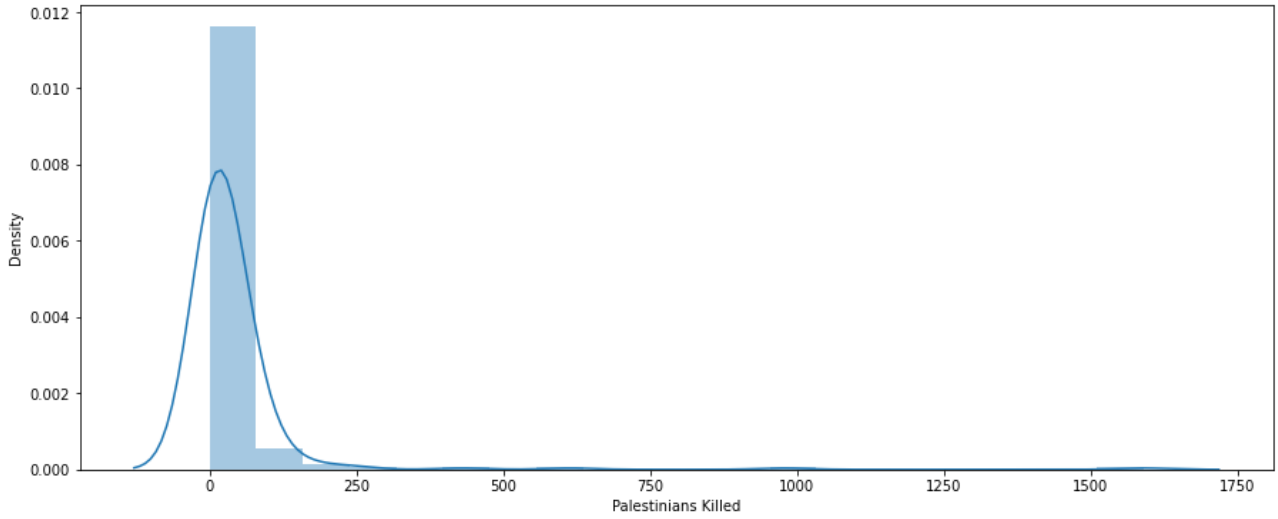
In [18]:
```
df1 = df[['Year', 'Palestinians Injuries', 'Israelis Injuries','Palestinians Killed',
          'Israelis Killed']]
```

In [19]:
```
for i in df1.columns:
    plt.figure(figsize=(15,6))
    sns.distplot(df1[i], kde = True, bins = 20)
    plt.xticks(rotation = 0)
    plt.show()
```

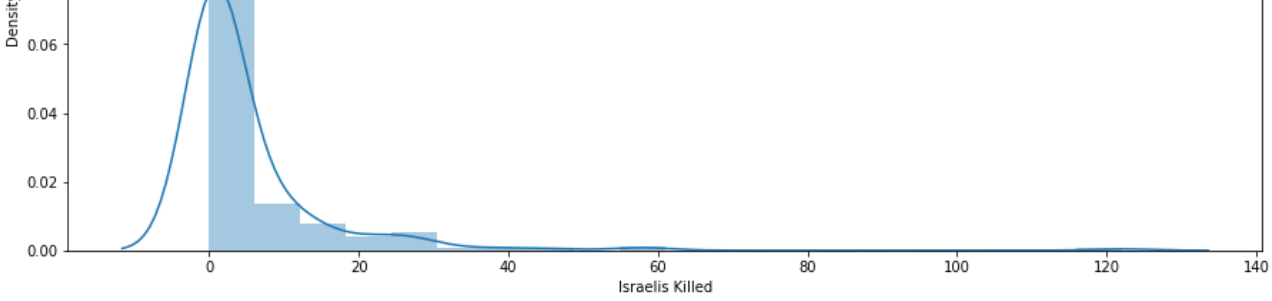

Density
0.05
0.04
0.03
0.02
0.01
0.00
1995
2000
2005
2010
2015
2020
2025
Year


Density
0.0012
0.0010
0.0008
0.0006
0.0004
0.0002
0.0000
0
2500
5000
7500
10000
12500
15000
Palestinians Injuries


Density
0.008
0.007
0.006
0.005
0.004
0.003
0.002
0.001
0.000
0
500
1000
1500
2000
2500
Israelis Injuries

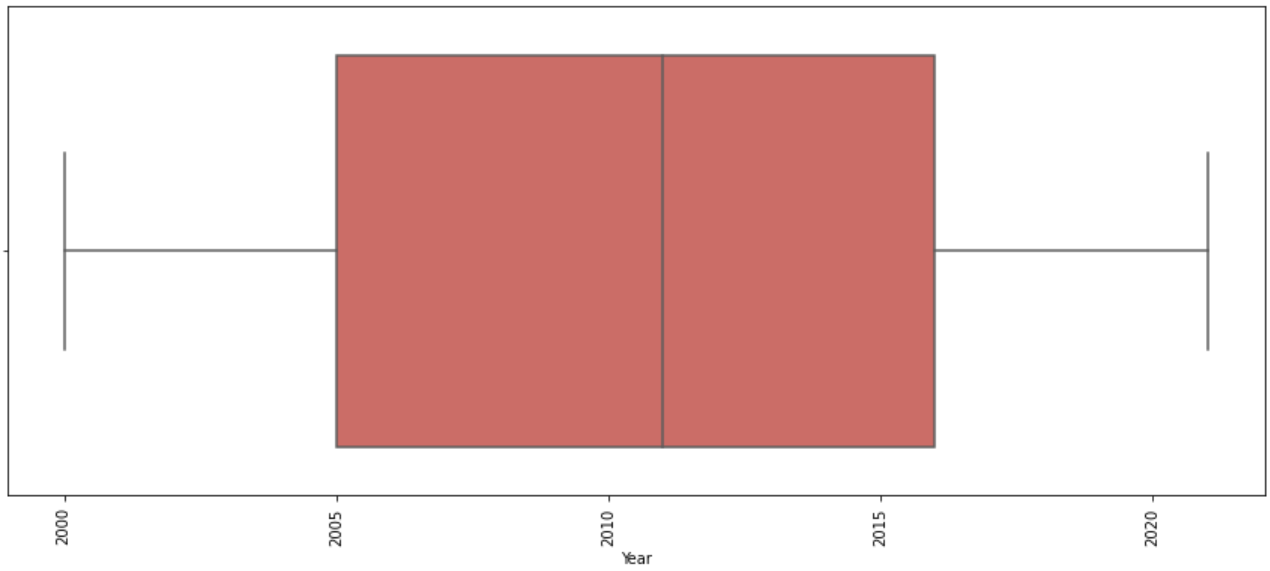

Density
0.012
0.010
0.008
0.006
0.004
0.002
0.000
0
250
500
750
1000
1250
1500
1750
Palestinians Killed

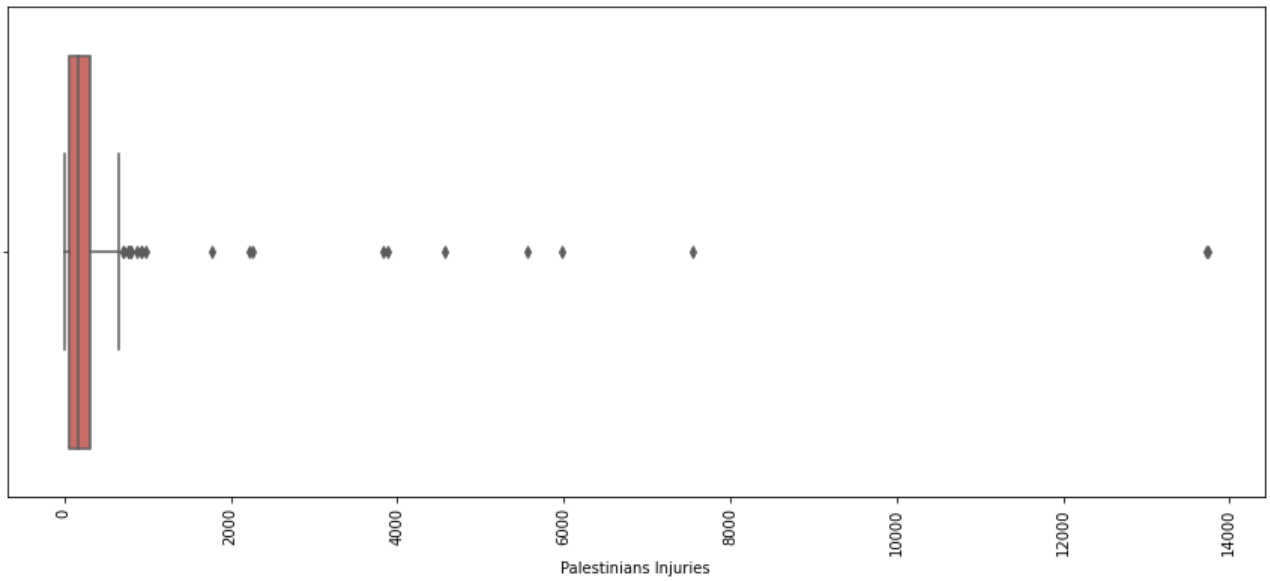

0.12
0.10
0.08

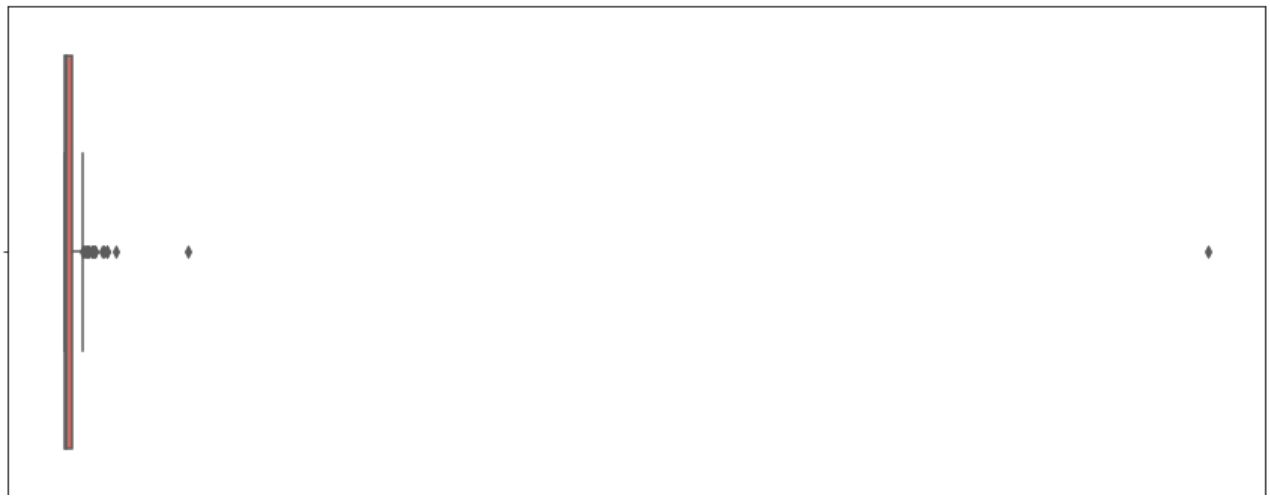


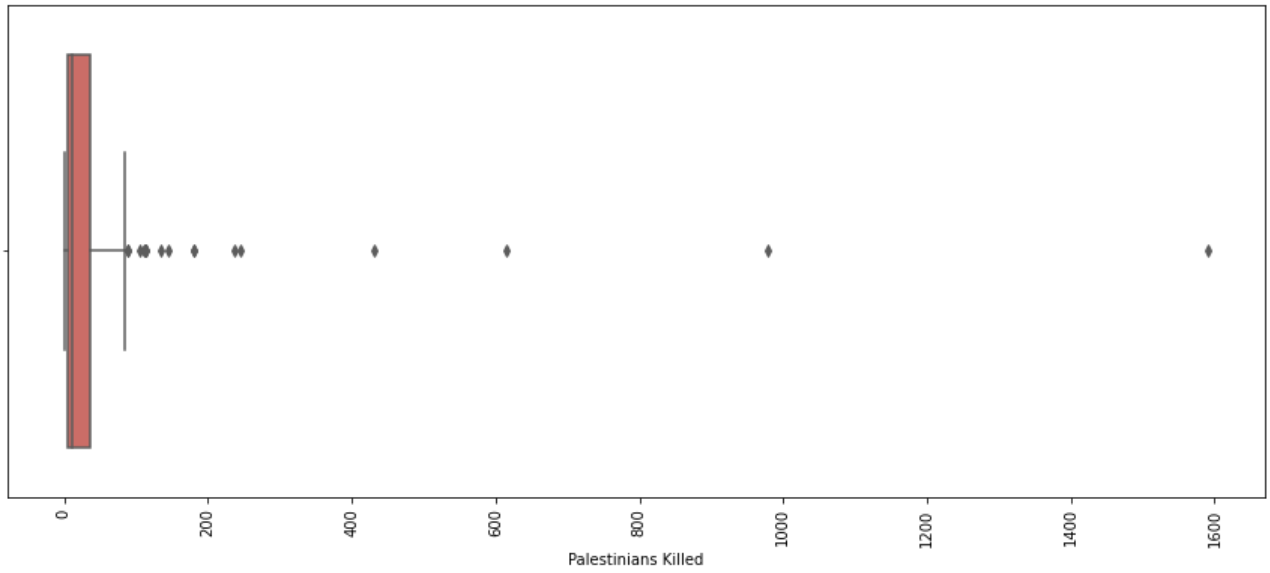
In [20]:

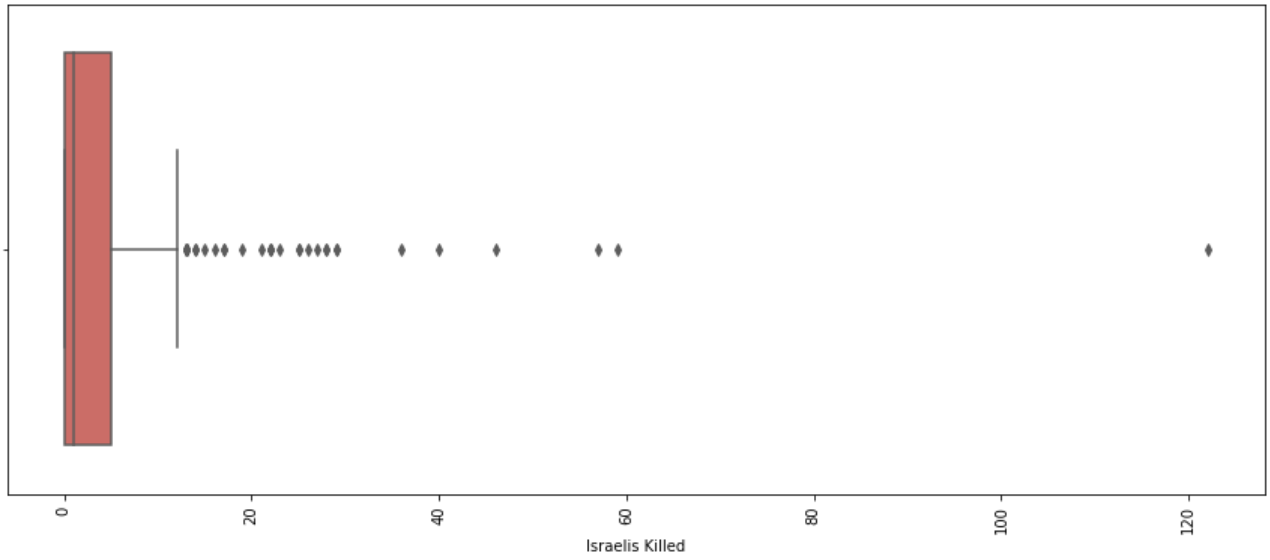
```
for i in df1.columns:
    plt.figure(figsize=(15,6))
    sns.boxplot(df1[i], data = df, palette = 'hls')
    plt.xticks(rotation = 90)
    plt.show()
```





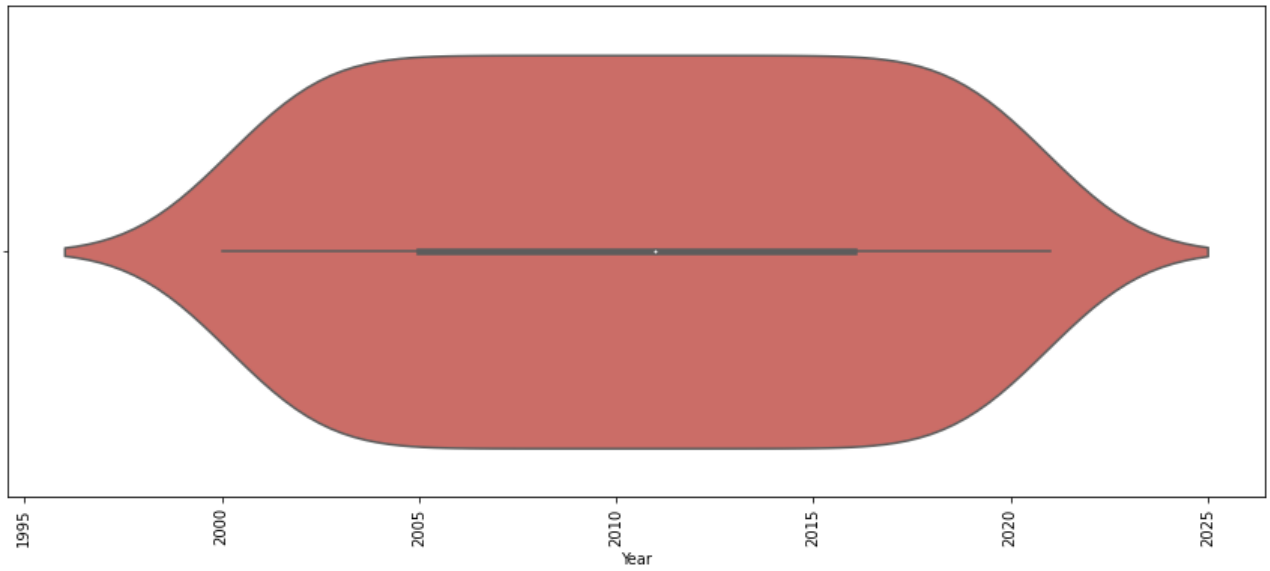


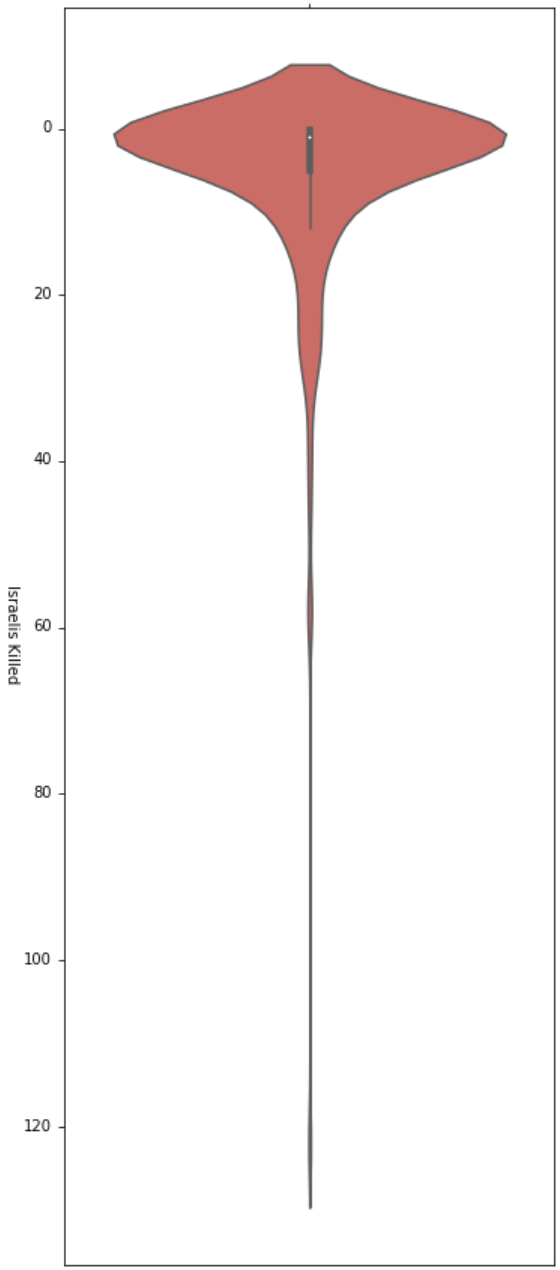


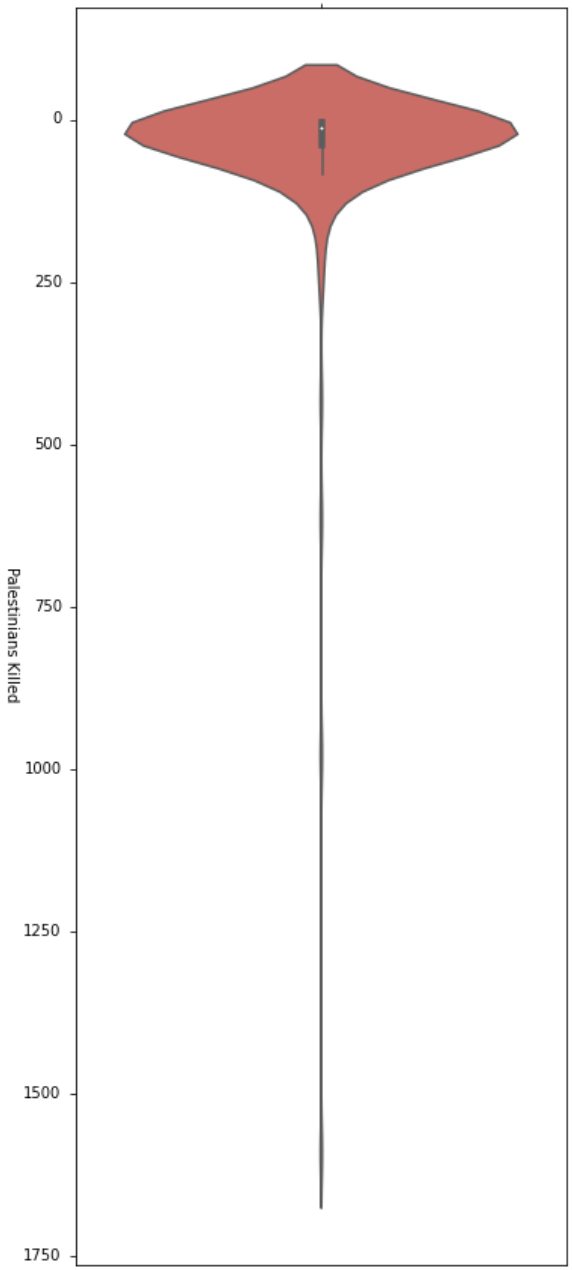


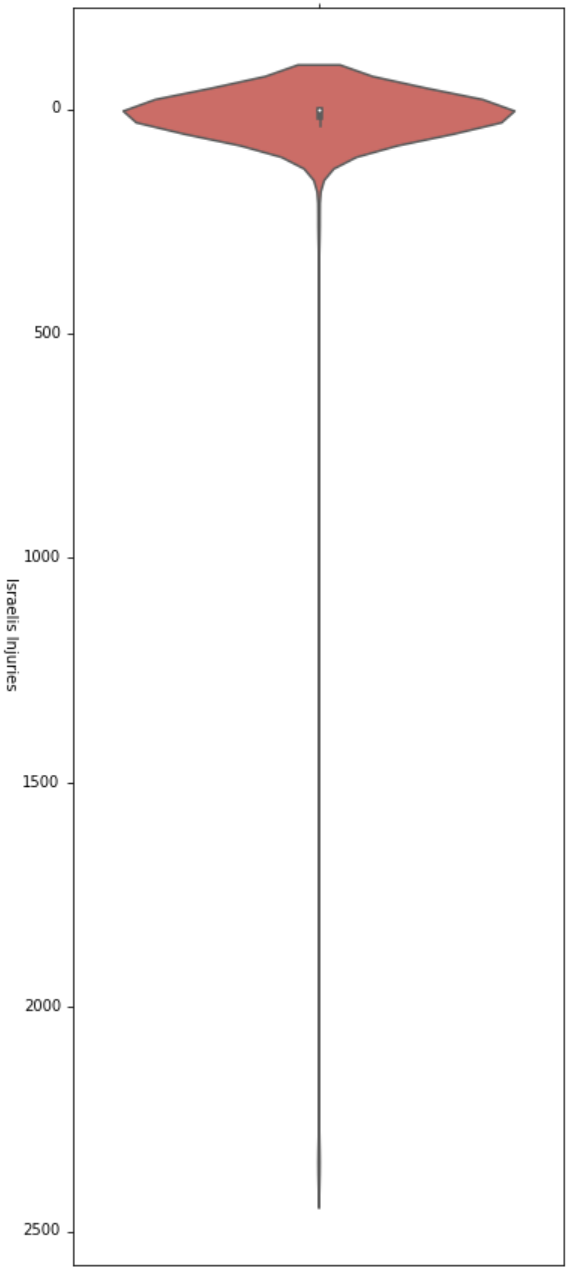
In [21]:

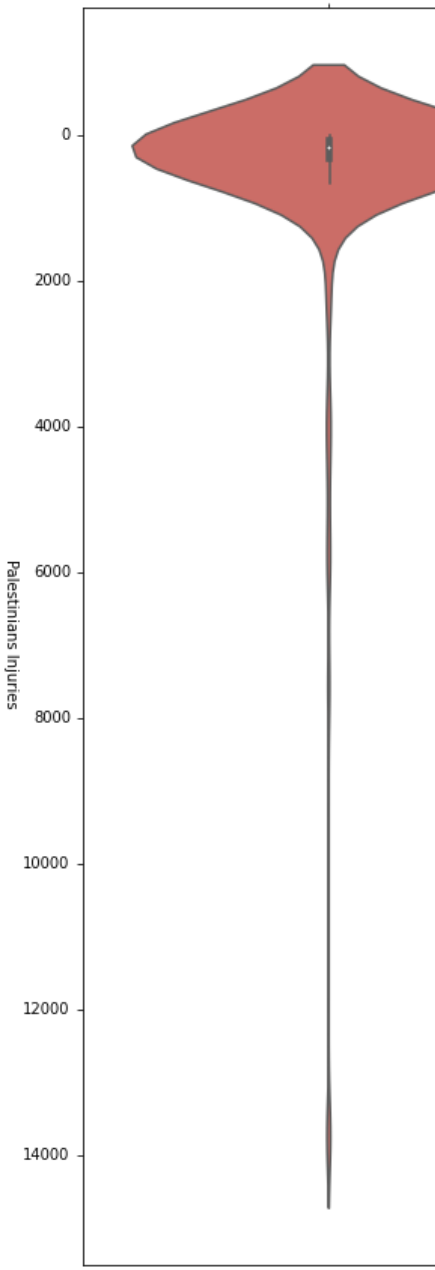
```
for i in df1.columns:
    plt.figure(figsize=(15,6))
    sns.violinplot(df1[i], data = df, palette = 'hls')
    plt.xticks(rotation = 90)
    plt.show()
```




Israelis Killed
0
20
40
60
80
100
120


Palestinians Killed
0
250
500
750
1000
1250
1500
1750


Israelis Injuries
0
500
1000
1500
2000
2500

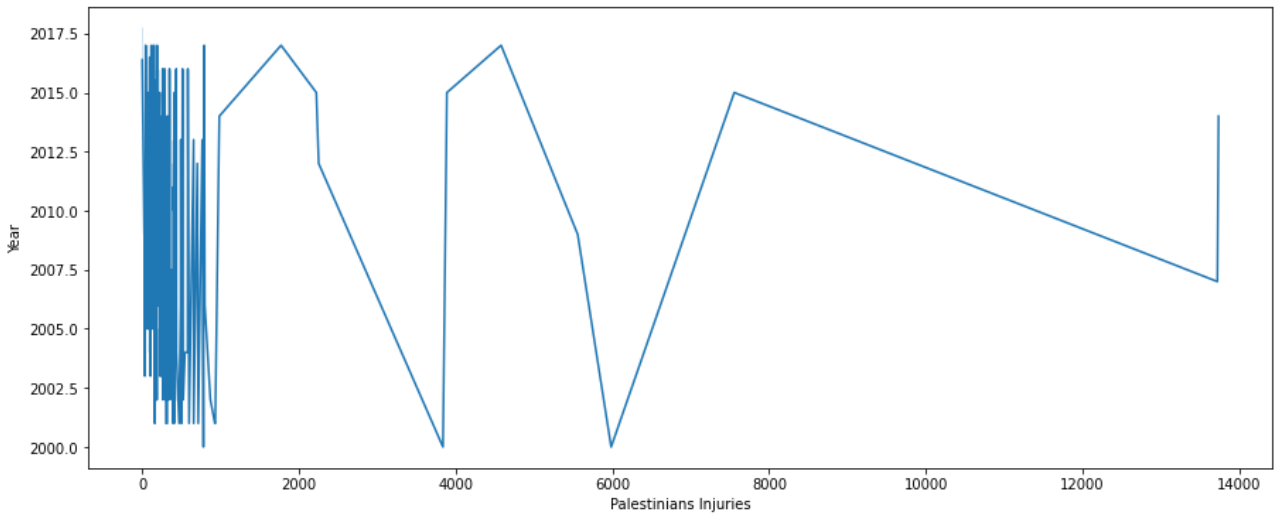

Palestinians Injuries
0
2000
4000
6000
8000
10000
12000
14000

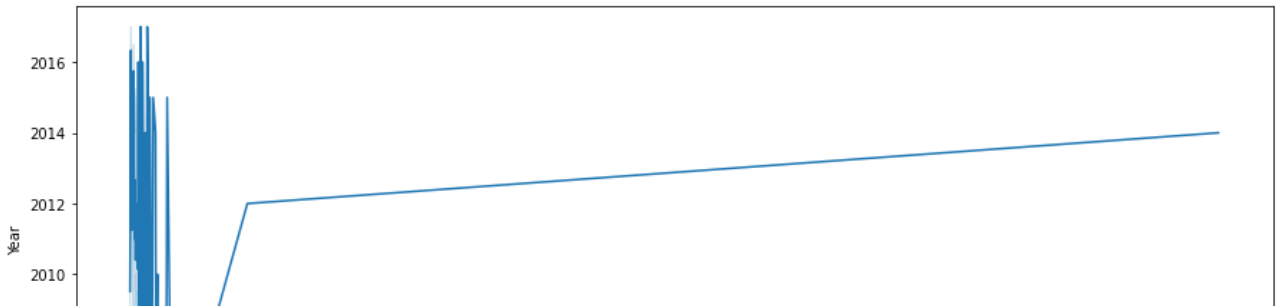
In [22]:
```
for i in df.columns:
    fig = go.Figure(data=[go.Histogram(x=df[i])])
    fig.update_layout(
        title=i,
        xaxis_title=i,
        yaxis_title="Value")
    fig.show()
```

In [23]:
```
for i in df1.columns:
    fig = go.Figure(data=[go.Box(x=df1[i])])
    fig.update_layout(
        title=i,
        xaxis_title=i,
        yaxis_title="Value")
    fig.show()
```

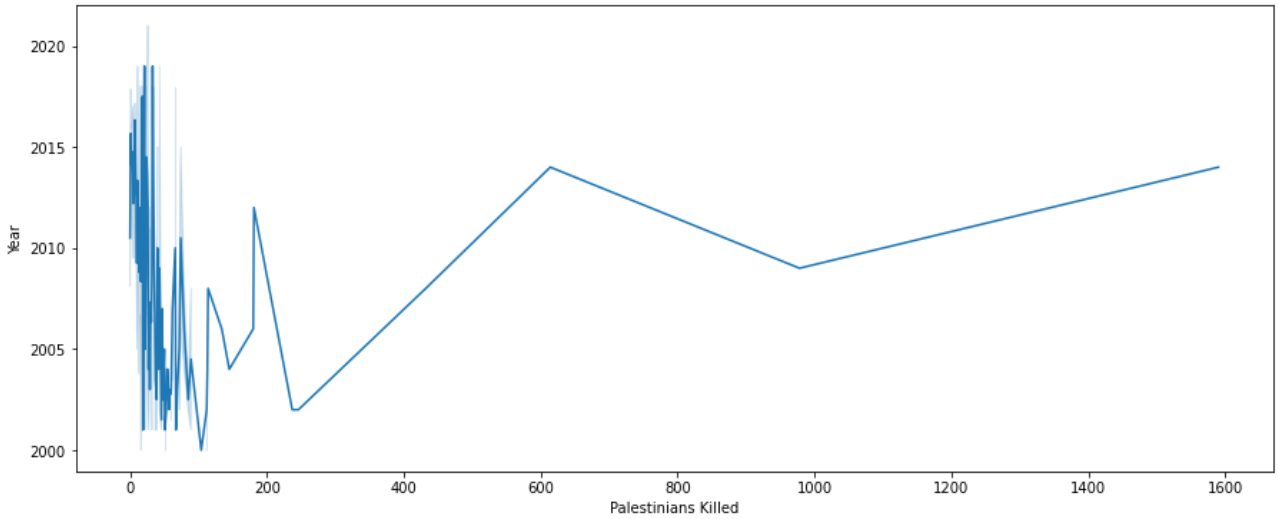
In [24]:
```
for i in df1.columns:
    fig = go.Figure(data=[go.Violin(x=df1[i])])
    fig.update_layout(
        title=i,
        xaxis_title=i,
        yaxis_title="Value")
    fig.show()
```

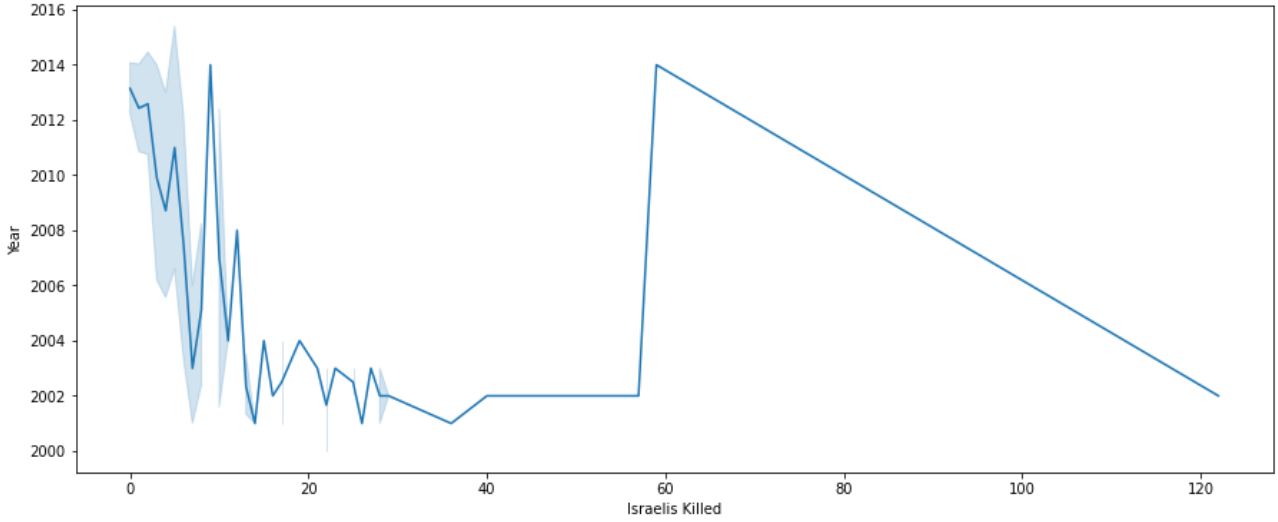
In [25]:
```
for i in df1.columns:
    for j in df1.columns:
        if i != j:
            plt.figure(figsize=(15,6))
            sns.lineplot(x = df1[j], y = df1[i], data = df1, palette = 'hls')
            plt.show()
```

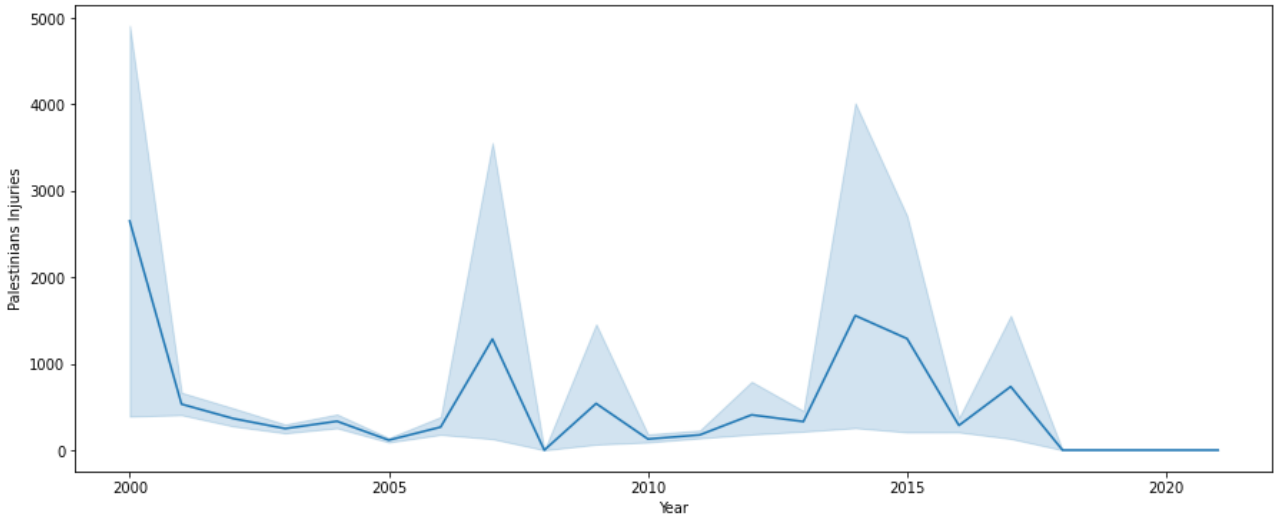


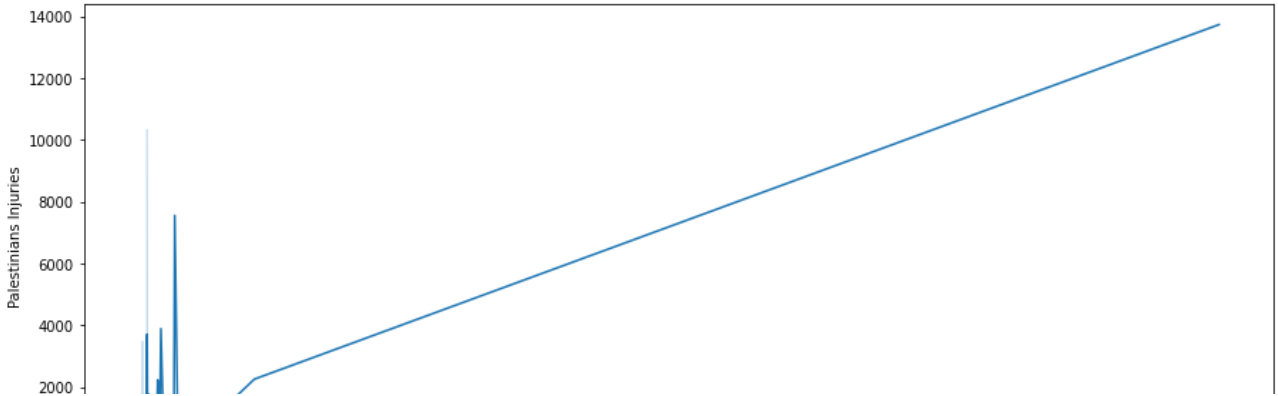



2008
2006
0
500
1000
1500
2000
Israelis Injuries

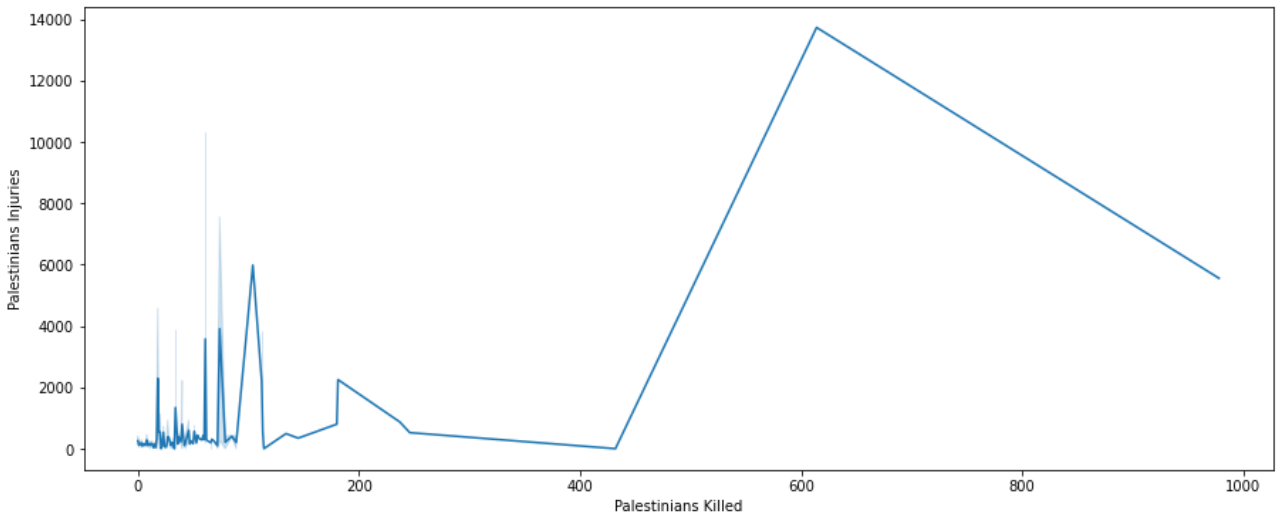

2020
2015
2010
2005
2000
Year
0
200
400
600
800
1000
1200
1400
1600
Palestinians Killed

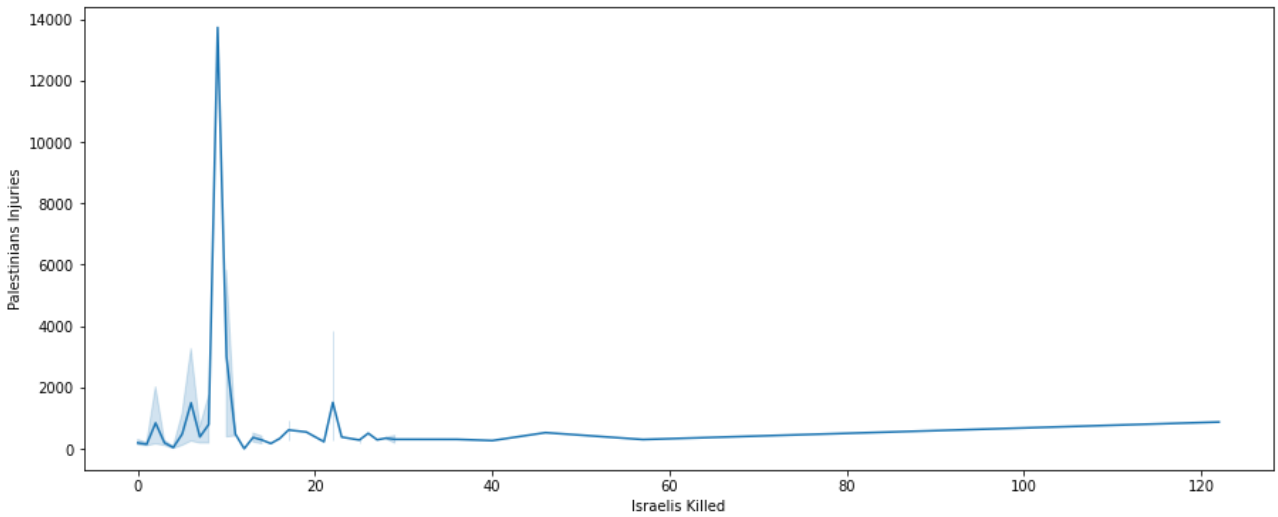

2016
2014
2012
2010
2008
2006
2004
2002
2000
Year
0
20
40
60
80
100
120
Israelis Killed

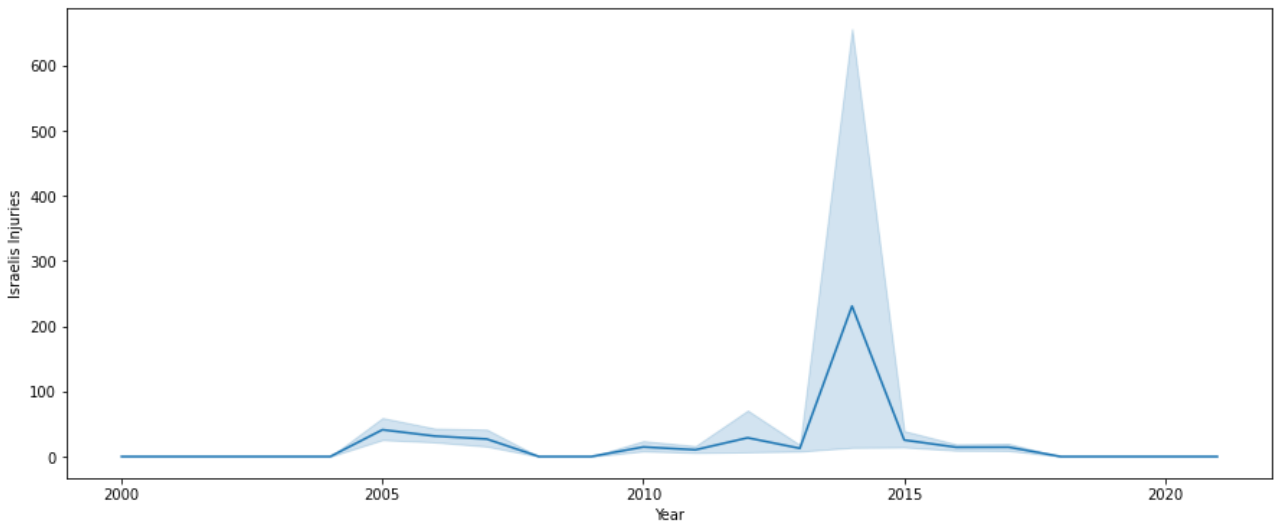

5000
4000
3000
2000
1000
0
Palestinians Injuries
2000
2005
2010
2015
2020
Year

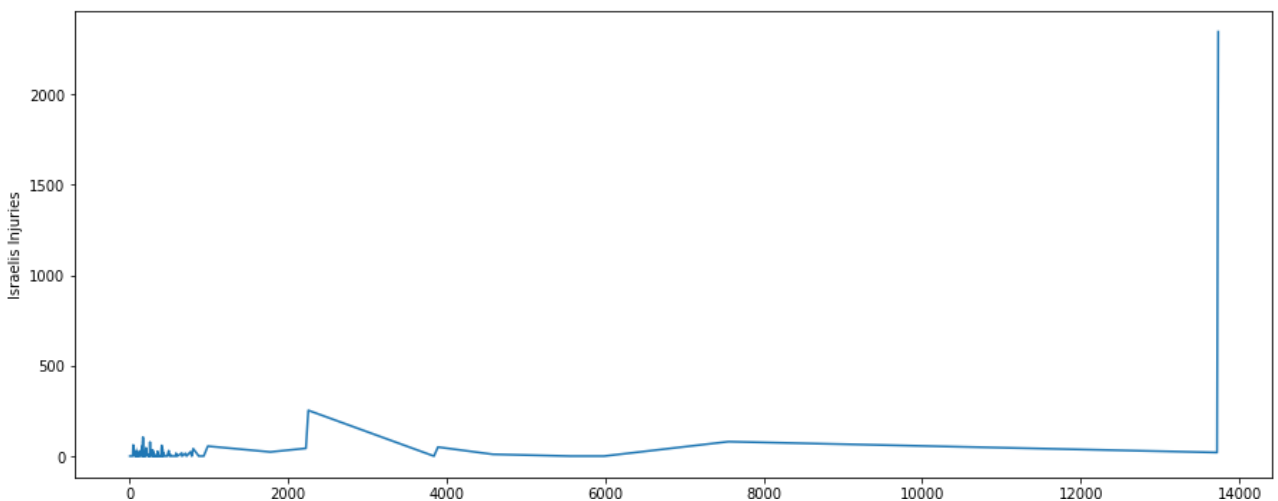

14000
12000
10000
8000
6000
4000
2000
Palestinians Injuries

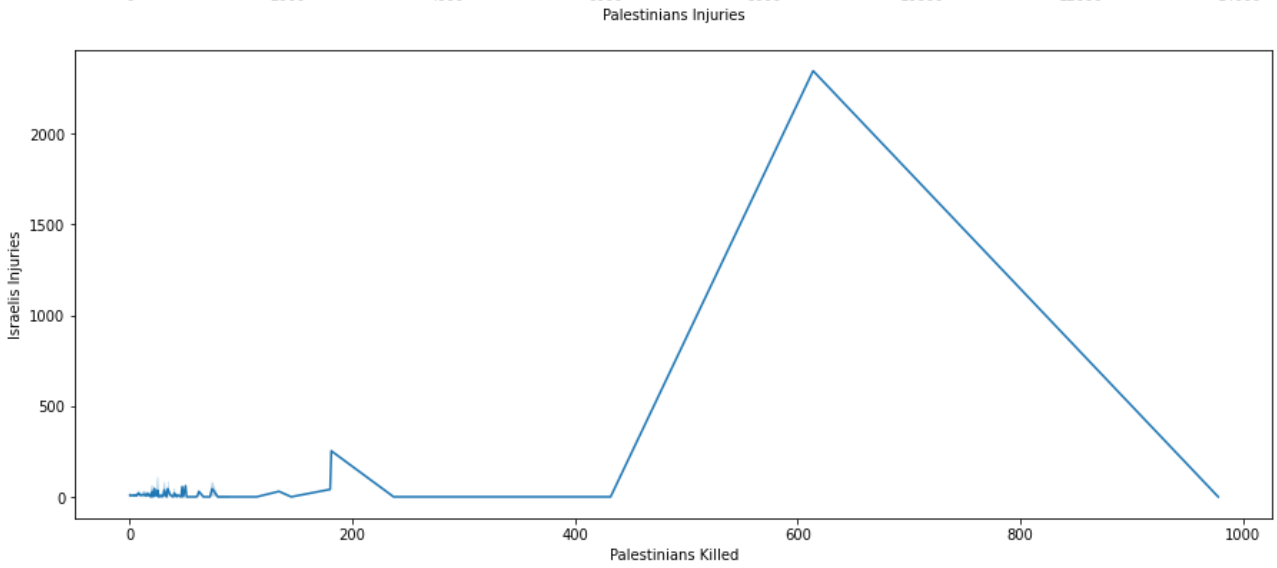

0
0
500
1000
1500
2000
Israelis Injuries

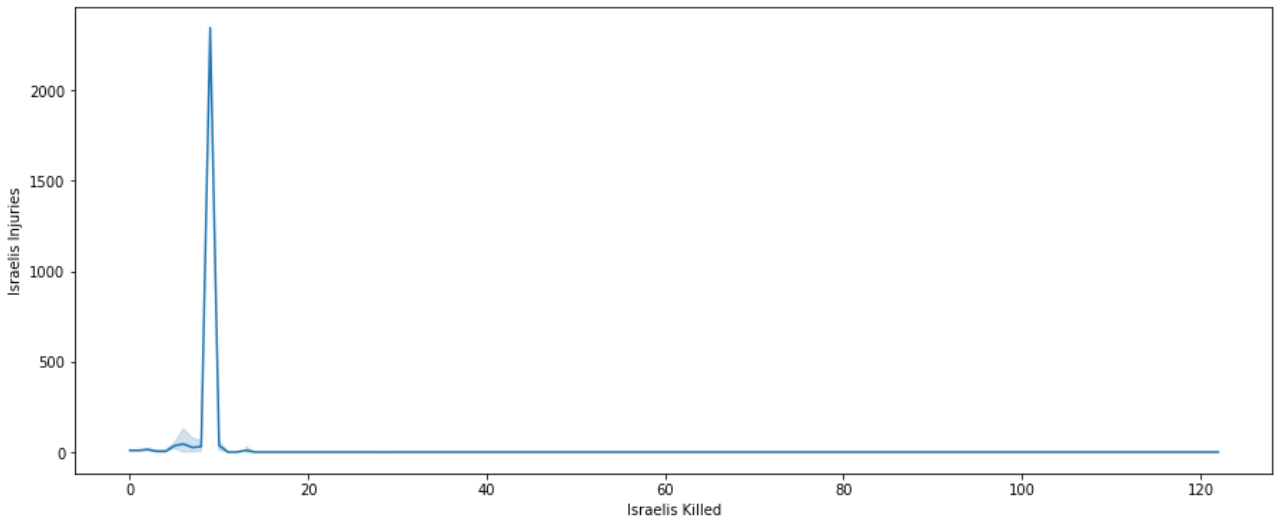

14000
12000
10000
8000
6000
4000
2000
0
Palestinians Injuries
0
200
400
600
800
1000
Palestinians Killed

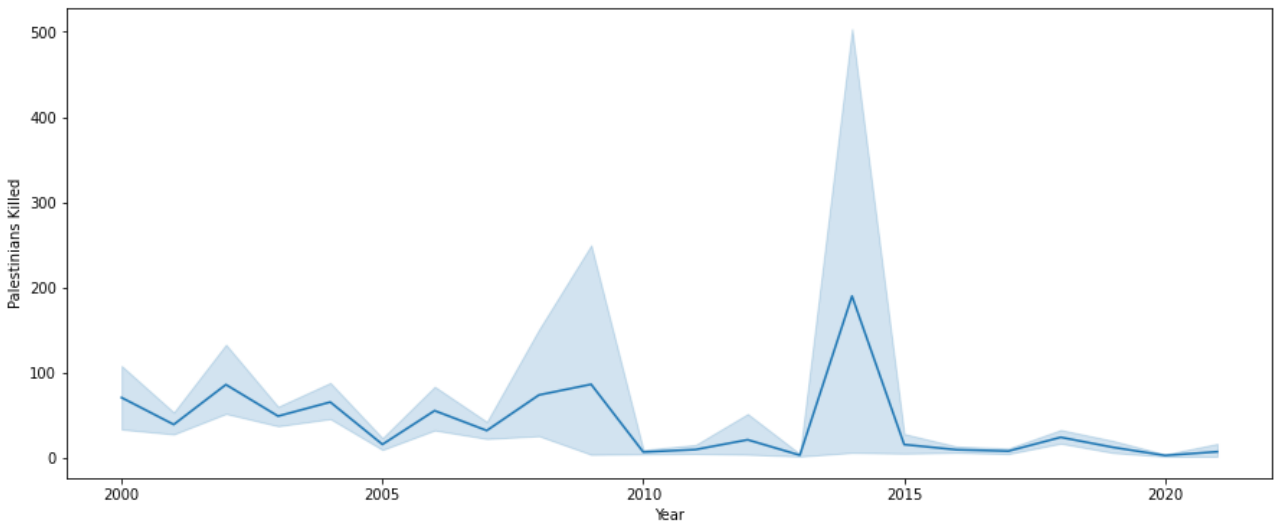

14000
12000
10000
8000
6000
4000
2000
0
Palestinians Injuries
0
20
40
60
80
100
120
Israelis Killed

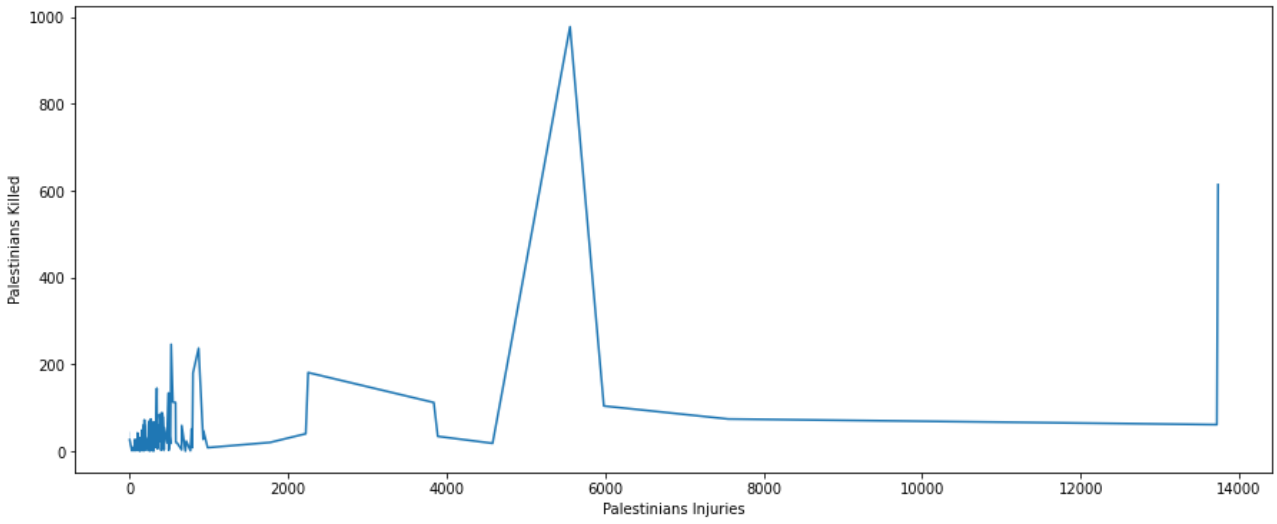

600
500
400
300
200
100
0
Israelis Injuries
2000
2005
2010
2015
2020
Year

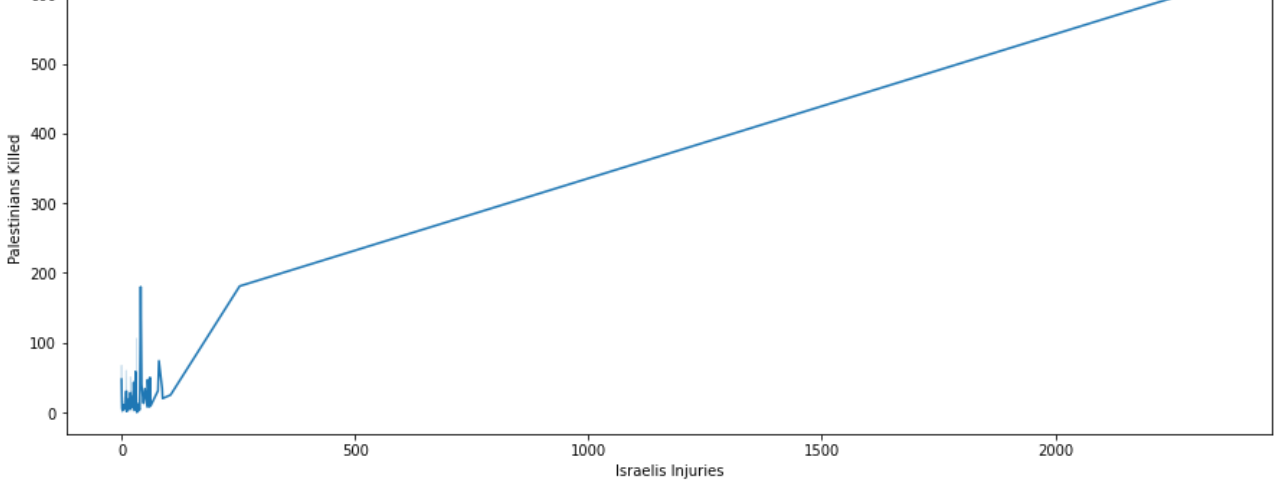

2000
1500
1000
500
0
Israelis Injuries
0
2000
4000
6000
8000
10000
12000
14000

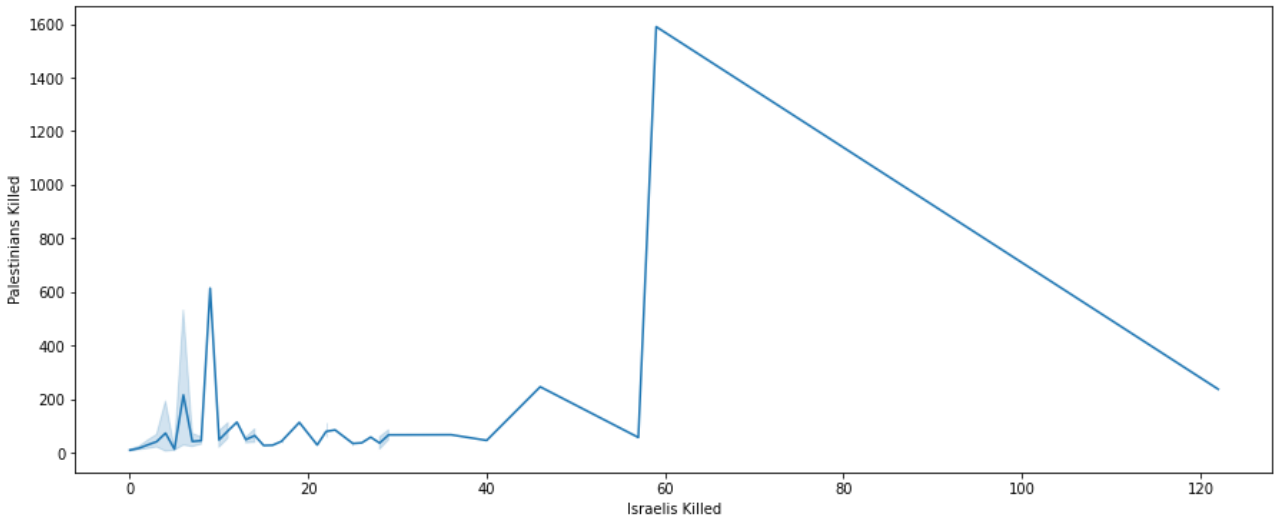

Palestinians Injuries
Israelis Injuries
2000
1500
1000
500
0
0
200
400
600
800
1000
Palestinians Killed

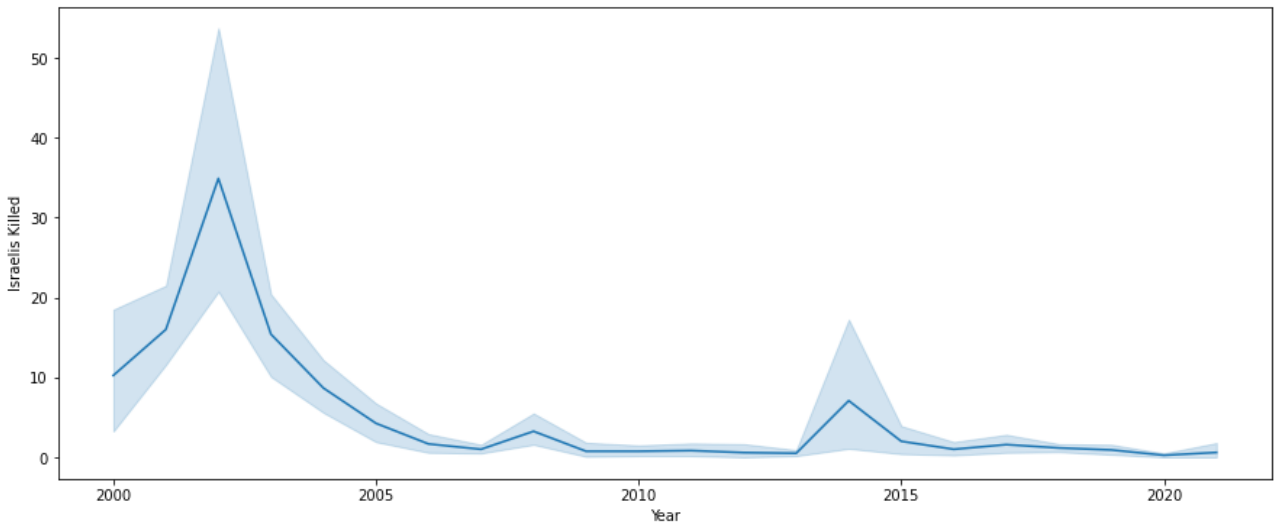

Israelis Injuries
2000
1500
1000
500
0
0
20
40
60
80
100
120
Israelis Killed

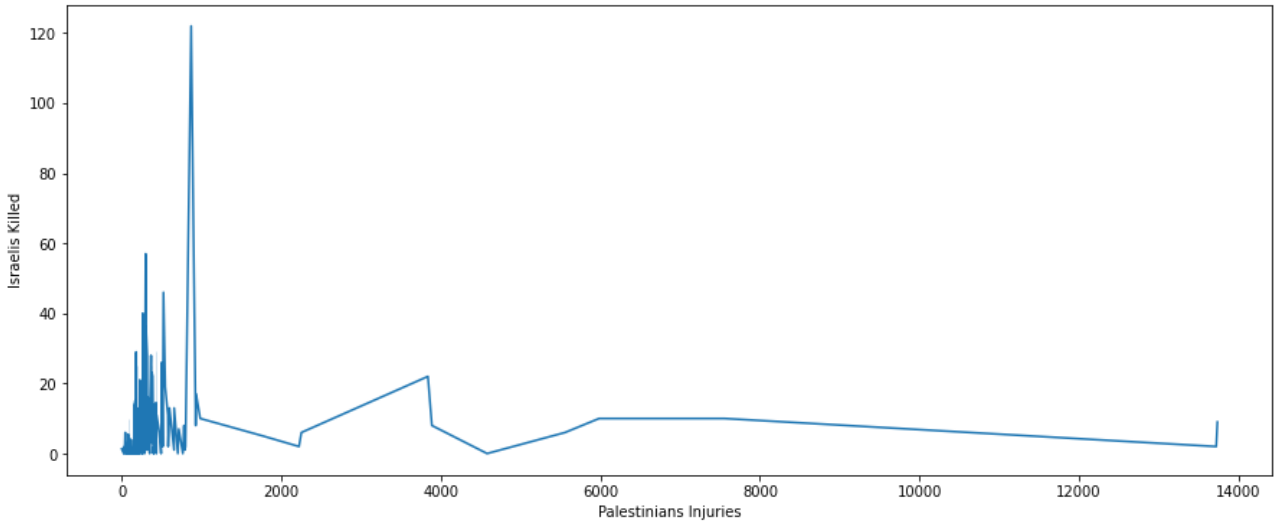

Palestinians Killed
500
400
300
200
100
0
2000
2005
2010
2015
2020
Year


Palestinians Killed
1000
800
600
400
200
0
0
2000
4000
6000
8000
10000
12000
14000
Palestinians Injuries

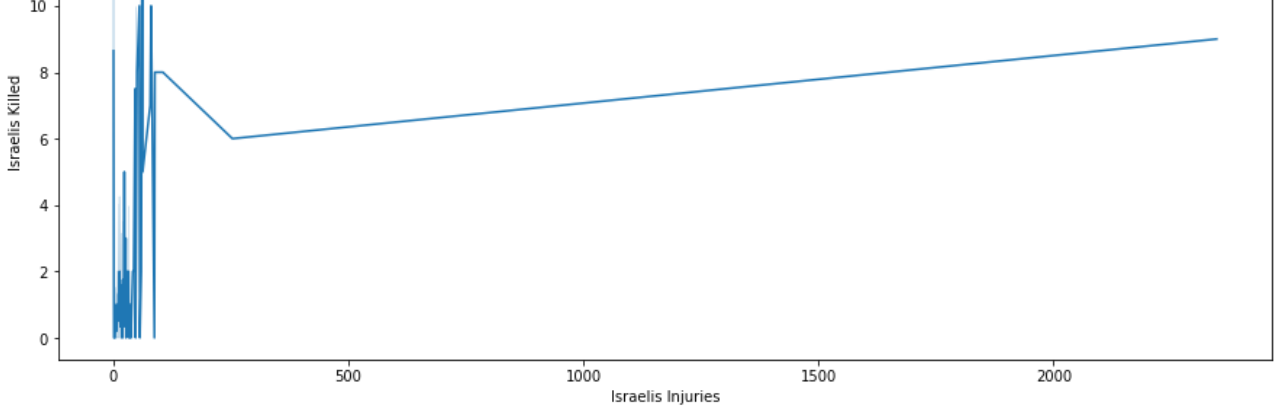

Palestinians Killed
0
100
200
300
400
500
0
500
1000
1500
2000
Israelis Injuries

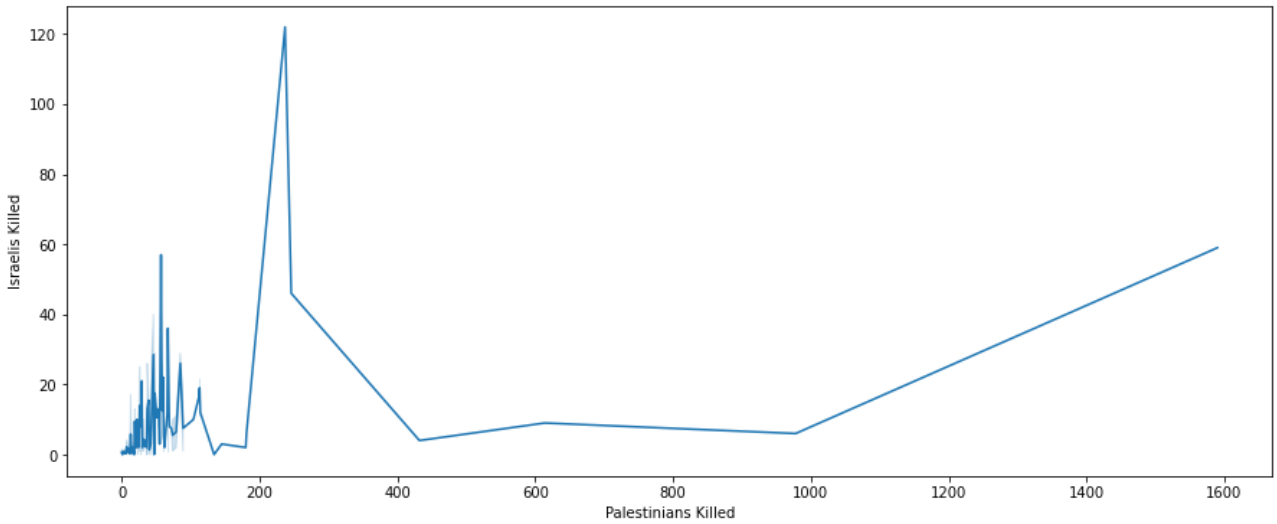

Palestinians Killed
0
200
400
600
800
1000
1200
1400
1600
0
20
40
60
80
100
120
Israelis Killed


Israelis Killed
0
10
20
30
40
50
2000
2005
2010
2015
2020
Year


Israelis Killed
0
20
40
60
80
100
120
0
2000
4000
6000
8000
10000
12000
14000
Palestinians Injuries

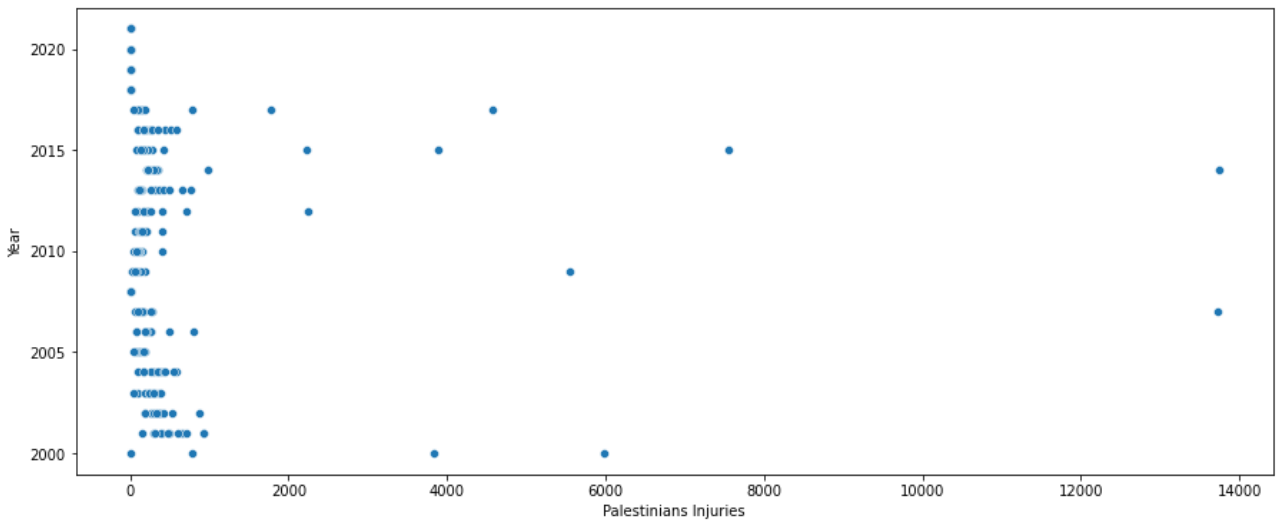

12

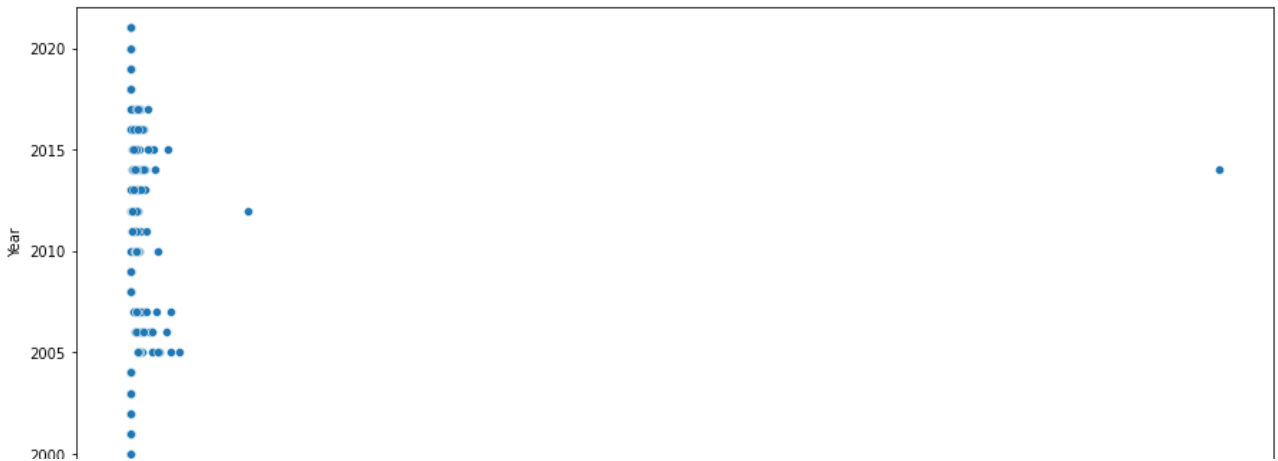




In [26]:

```
for i in df1.columns:
    for j in df1.columns:
        if i != j:
            plt.figure(figsize=(15,6))
            sns.scatterplot(x = df1[j], y = df1[i], data = df1, palette = 'hls')
            plt.show()
```






0
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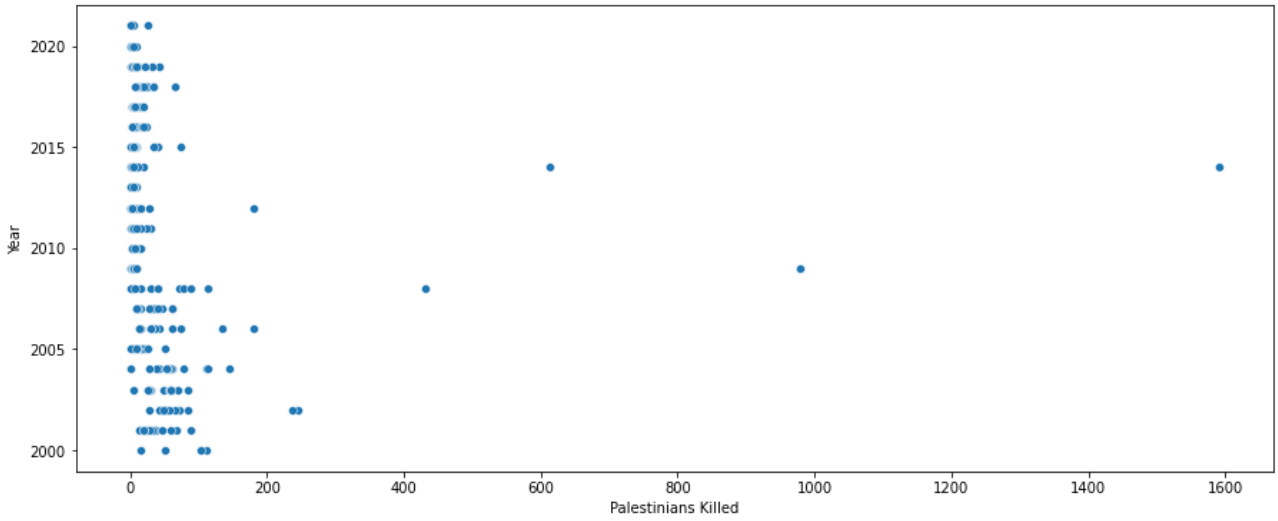
1000
1500
2000
Israelis Injuries


2020
2015
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2005
2000
Year
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200
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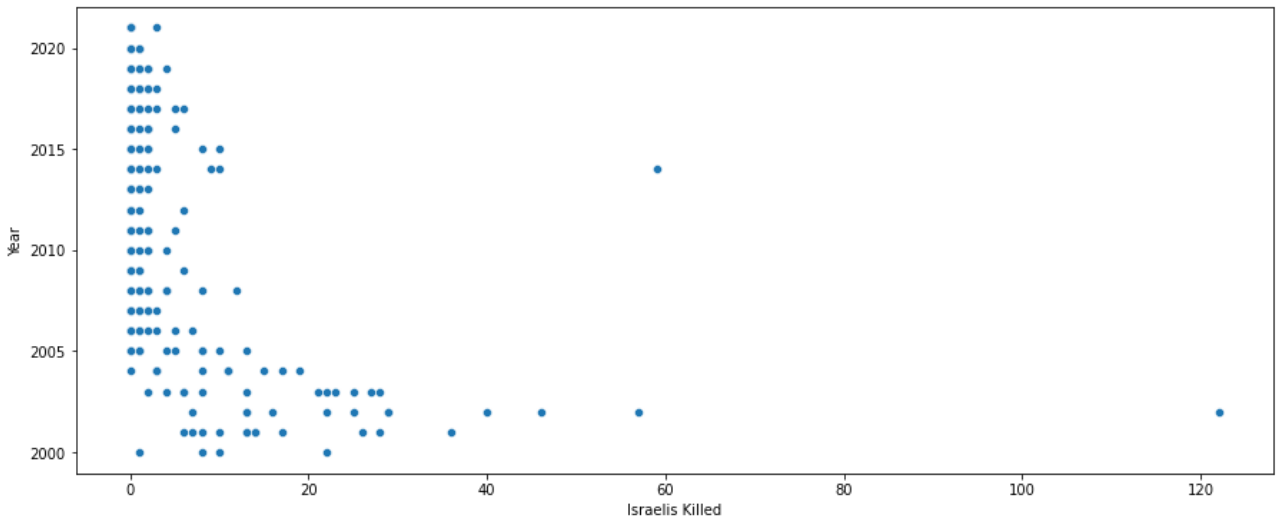
600
800
1000
1200
1400
1600
Palestinians Killed


2020
2015
2010
2005
2000
Year
0
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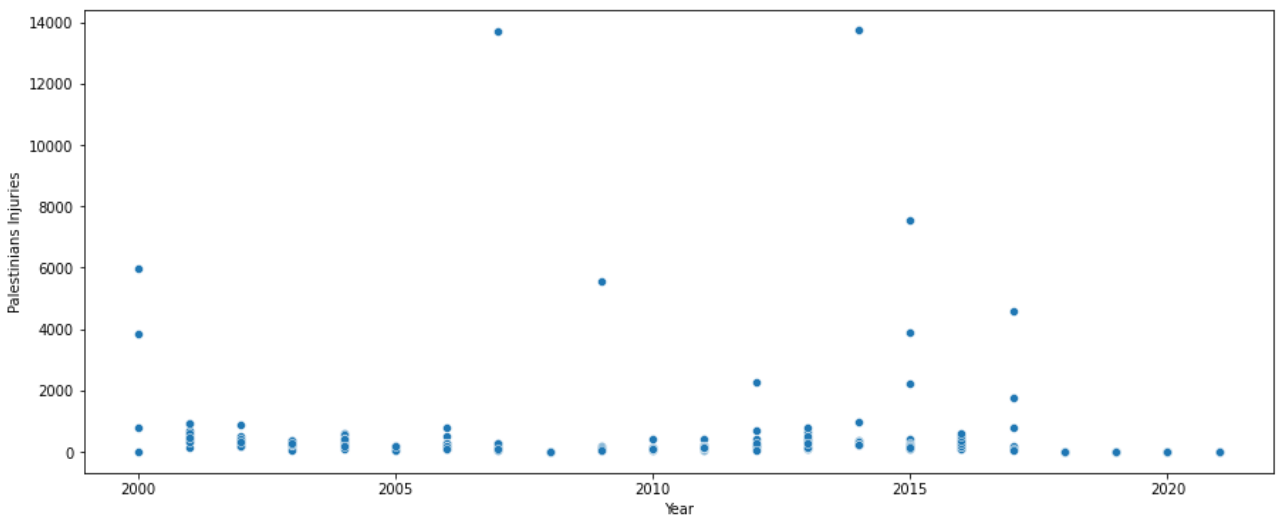
40
60
80
100
120
Israelis Killed


14000
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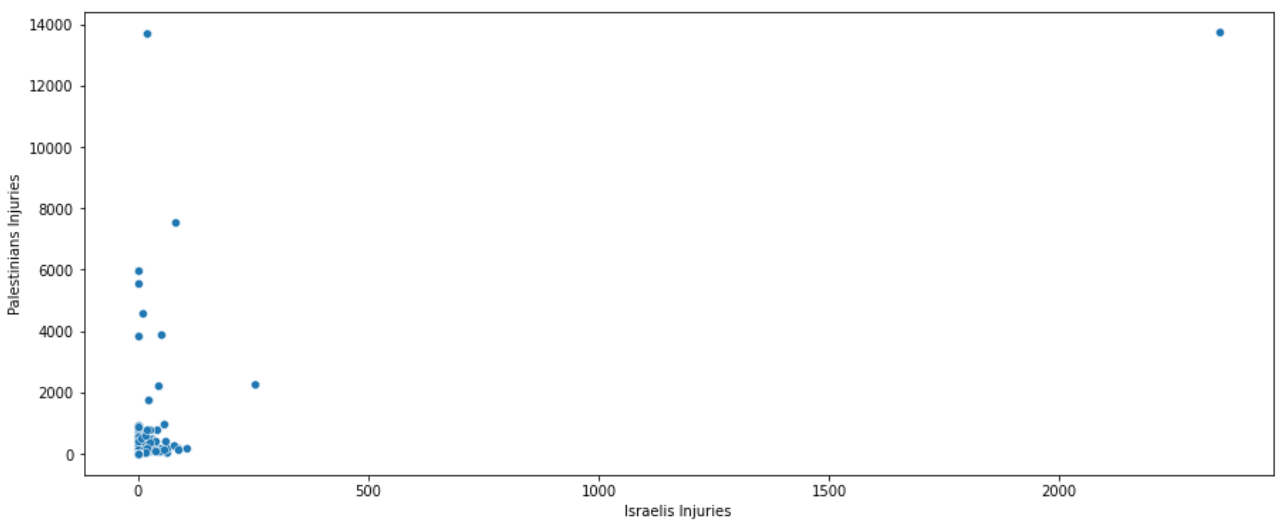
Palestinians Injuries
2000
2005
2010
2015
2020
Year


14000
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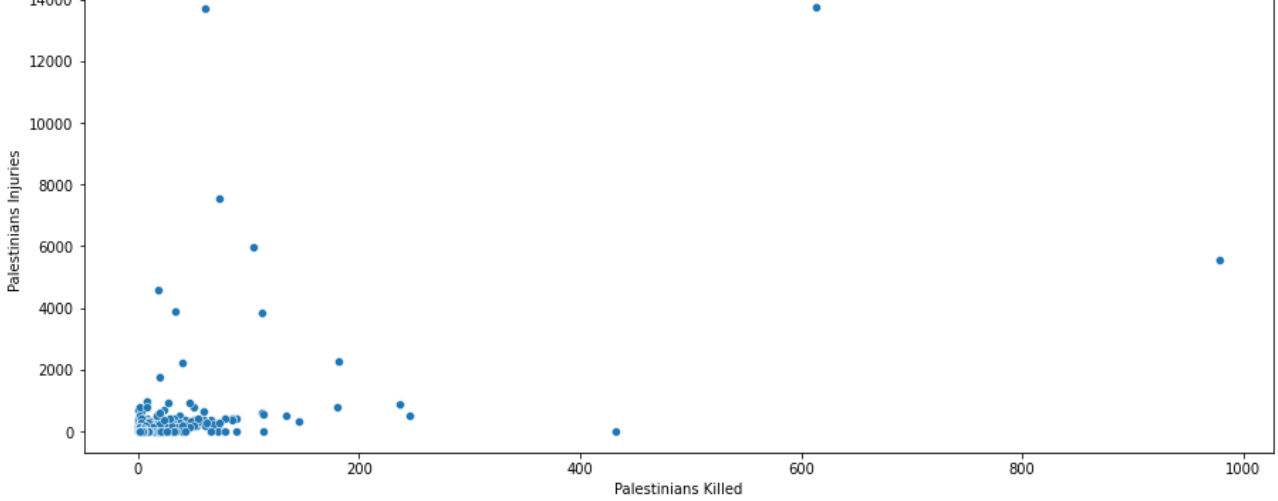
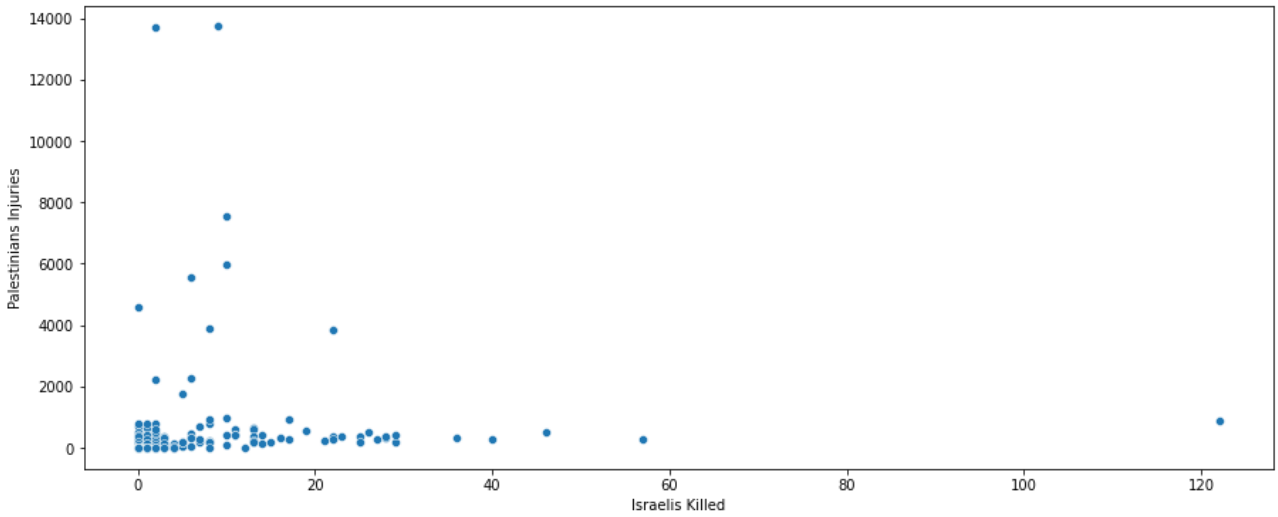
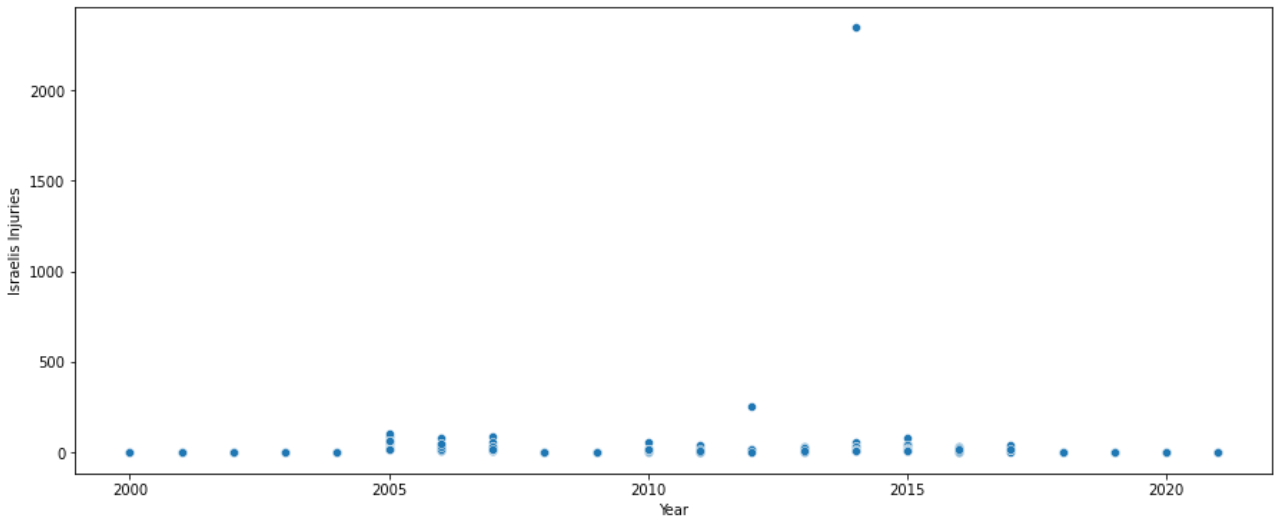
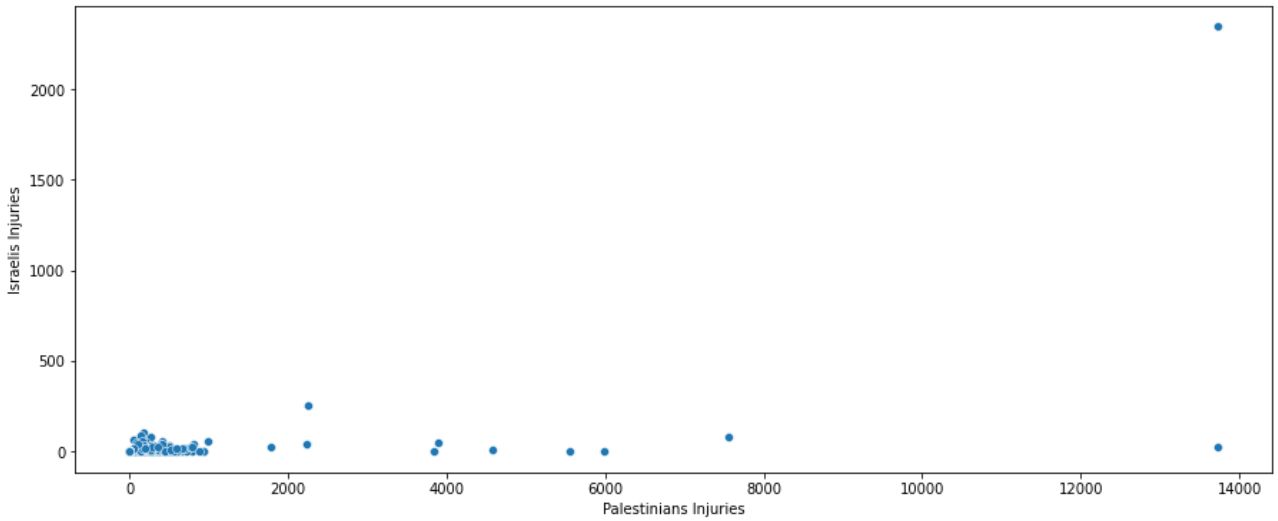
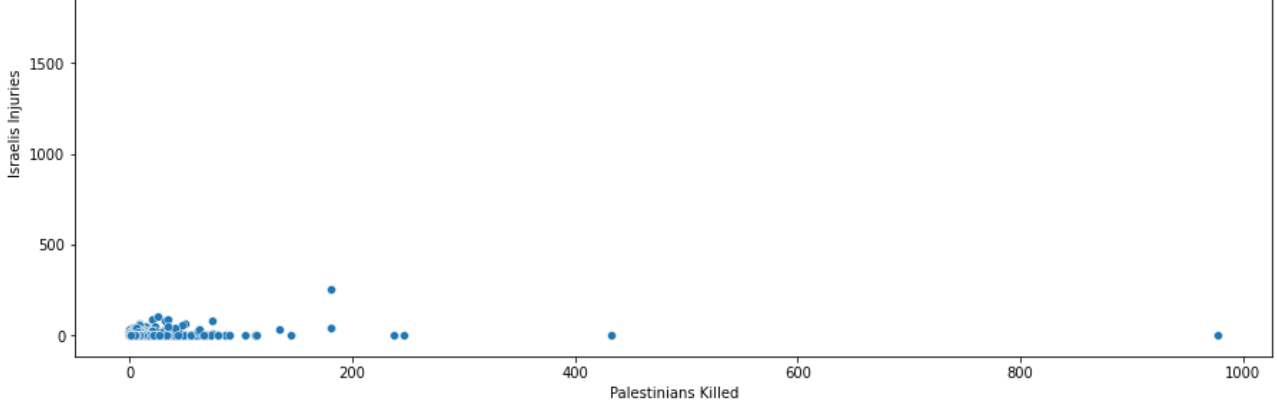
Palestinians Injuries
0
500
1000
1500
2000
Israelis Injuries


Palestinians Injuries
Palestinians Killed


Palestinians Injuries
Israelis Killed


Israelis Injuries
Year


Israelis Injuries
Palestinians Injuries


Israelis Injuries
1500
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500
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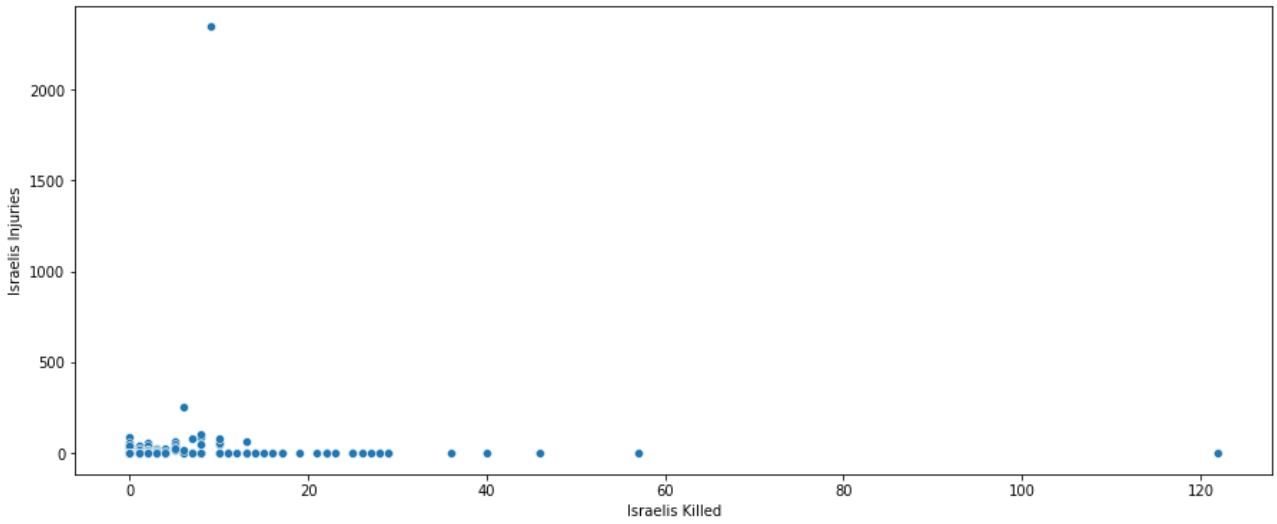
200
400
600
800
1000
Palestinians Killed


Israelis Injuries
2000
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40
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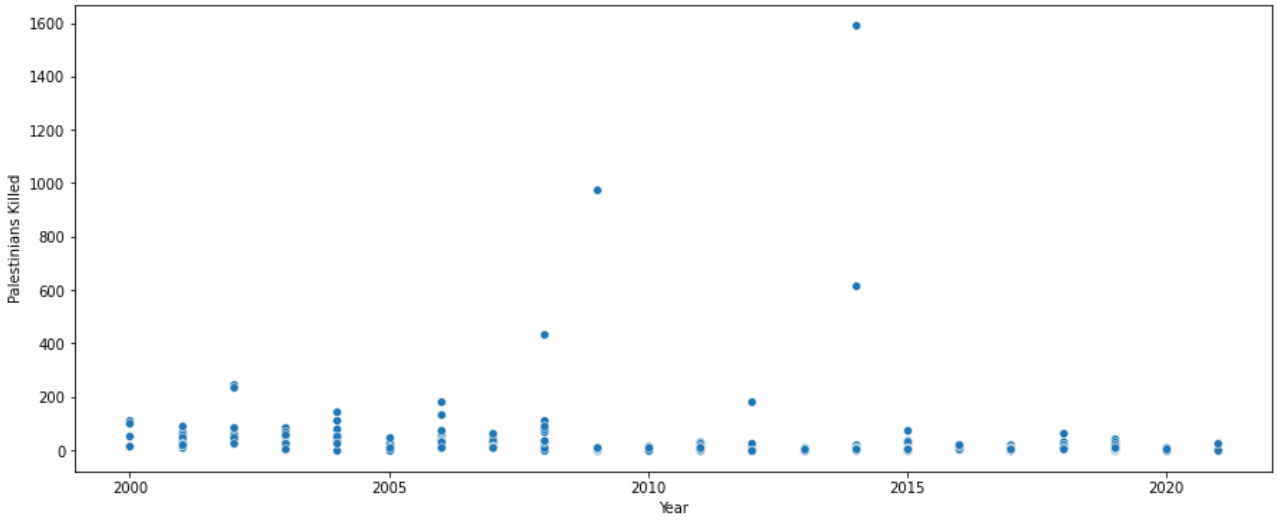
80
100
120
Israelis Killed


Palestinians Killed
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2010
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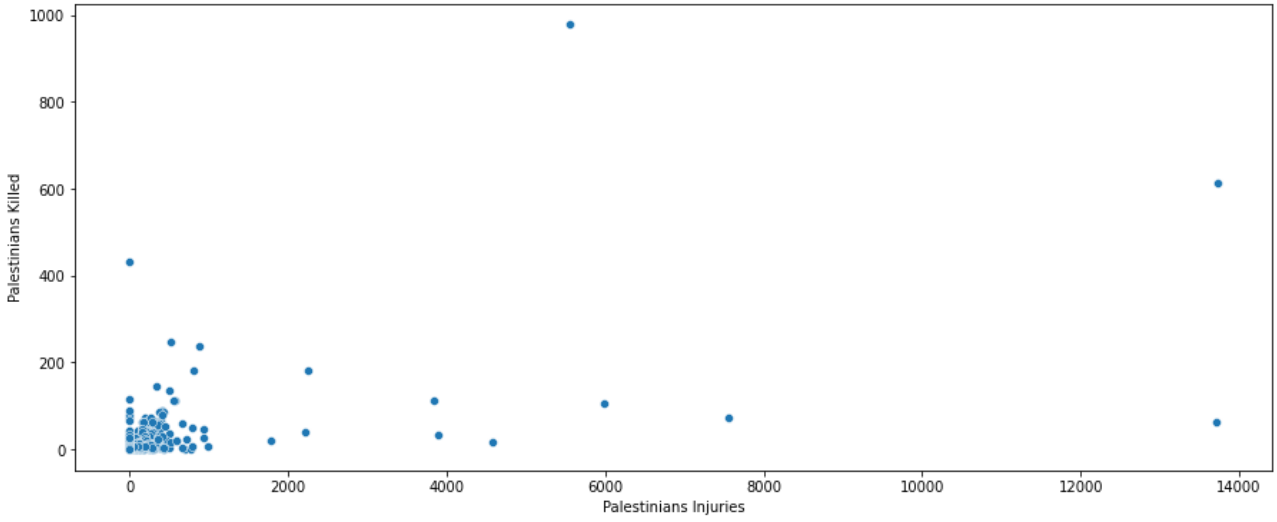
2020
Year


Palestinians Killed
1000
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200
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4000
6000
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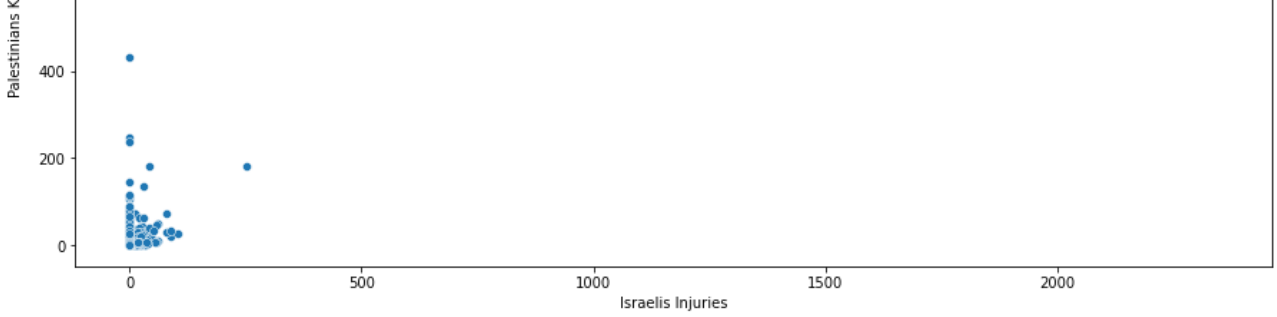
10000
12000
14000
Palestinians Injuries


1000
800
600


Palestinians K
400
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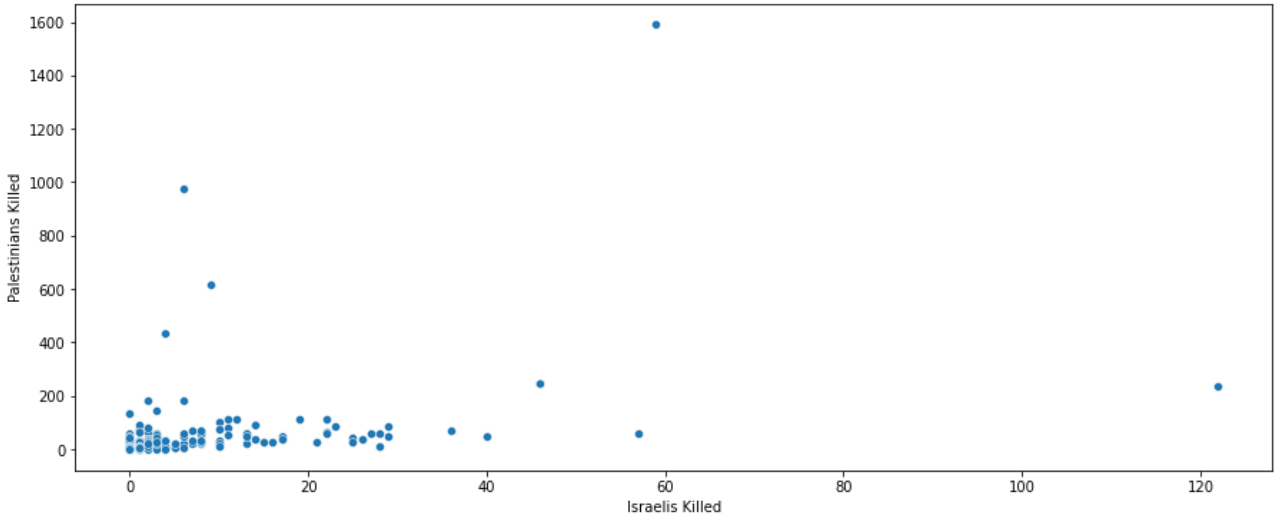
500
1000
1500
2000
Israelis Injuries


Palestinians Killed
1600
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20
40
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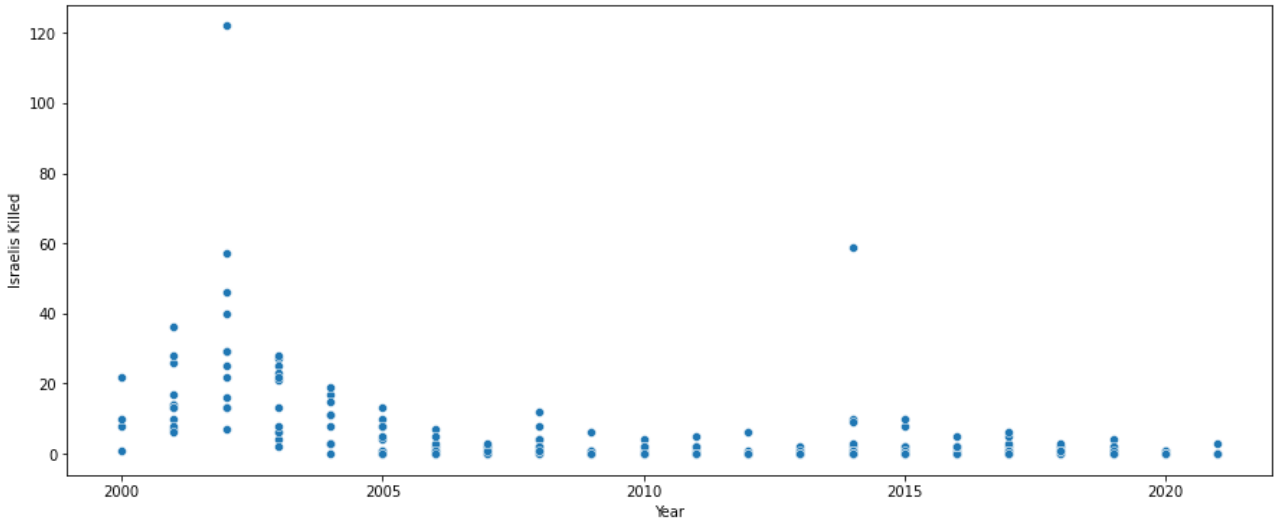
120
Israelis Killed


Israelis Killed
120
100
80
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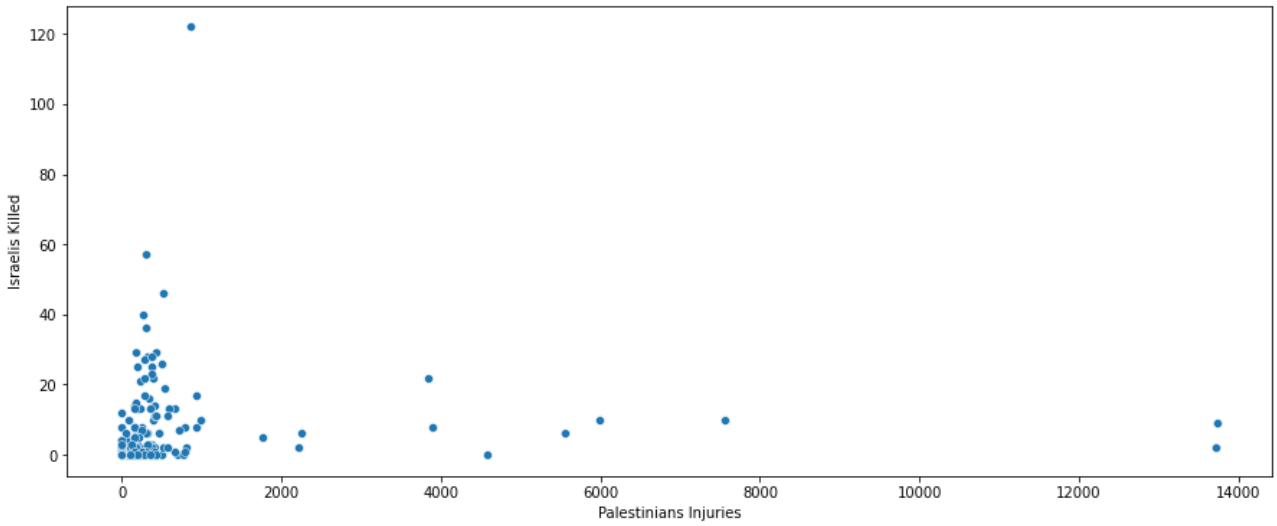
40
20
0
2000
2005
2010
2015
2020
Year


Israelis Killed
120
100
80
60
40
20
0
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2000
4000
6000
8000
10000
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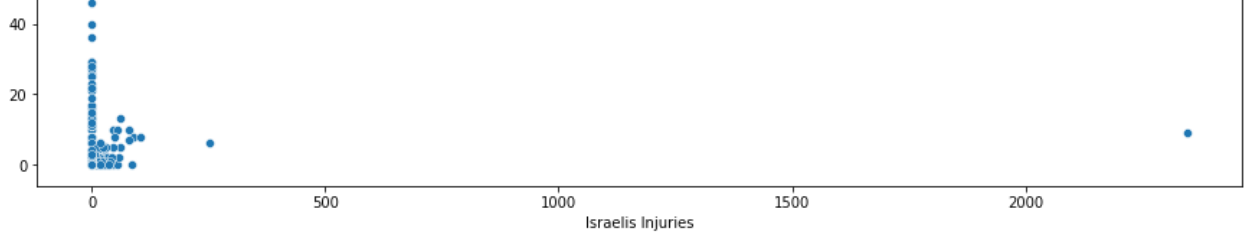
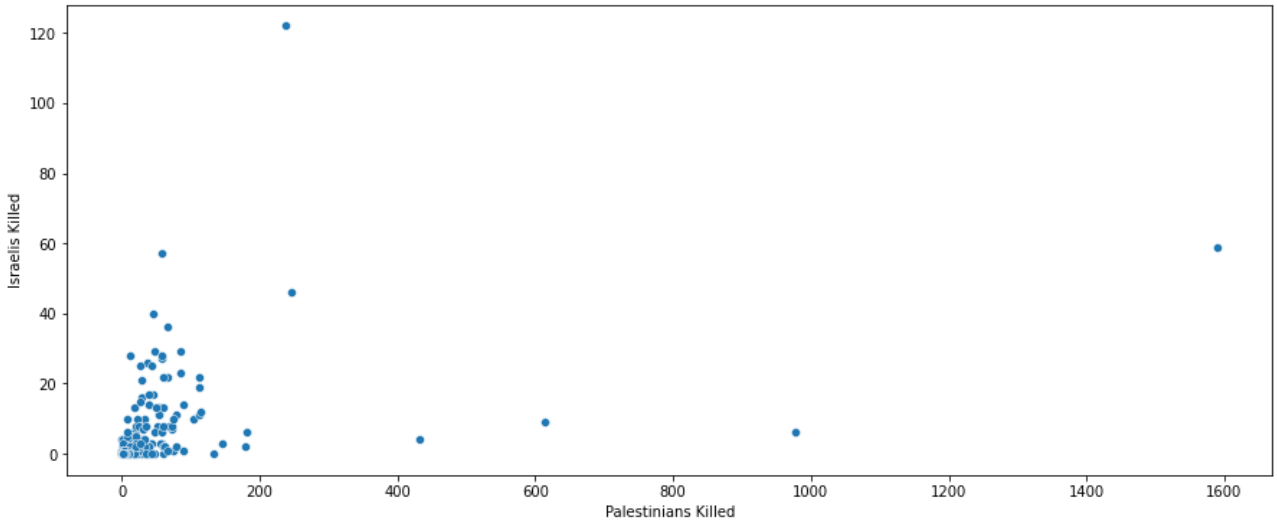
14000
Palestinians Injuries


120
100
80
60
Israelis Killed





In [27]:

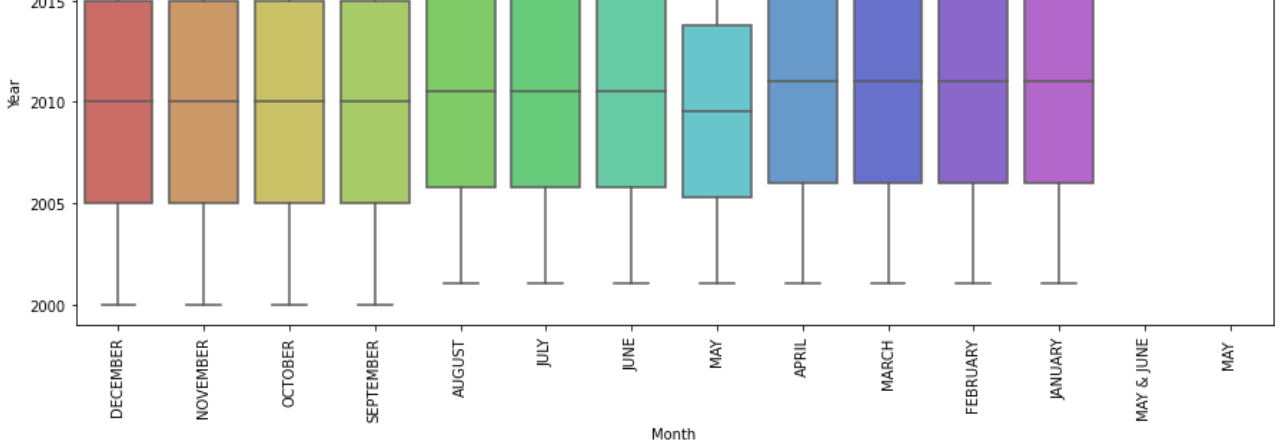
```
for i in df1.columns:
    for j in df1.columns:
        if i != j:
            fig = px.line(df1, x=j, y=i, title=f'Line Plot: {i} vs {j}')
            fig.show()
```

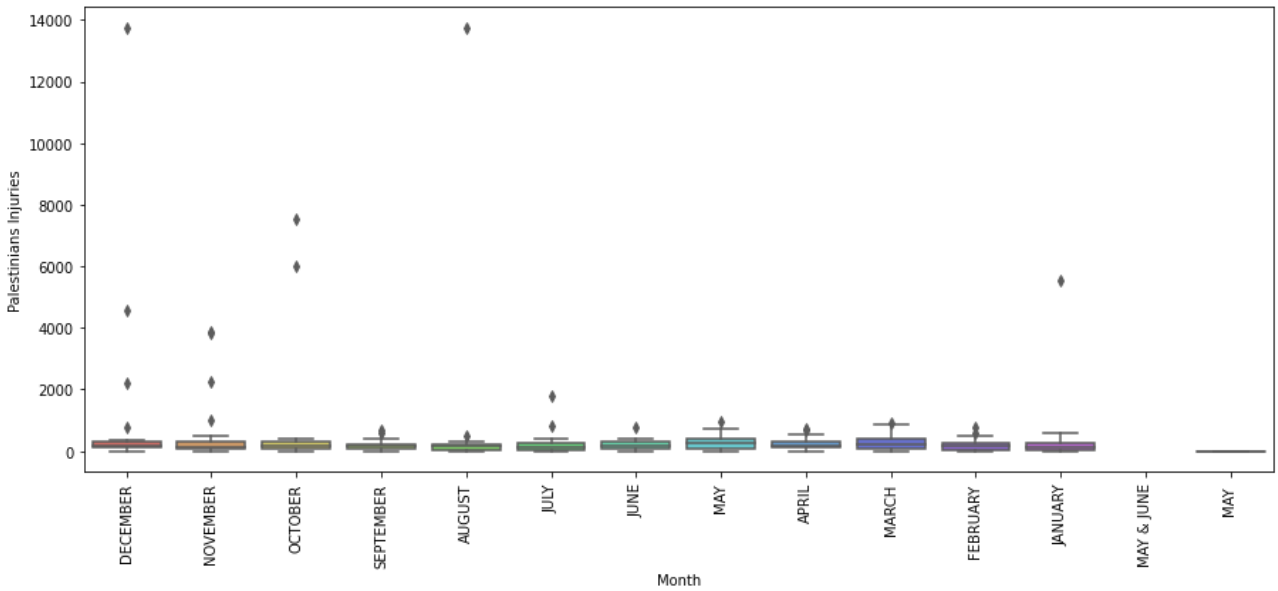
In [28]:

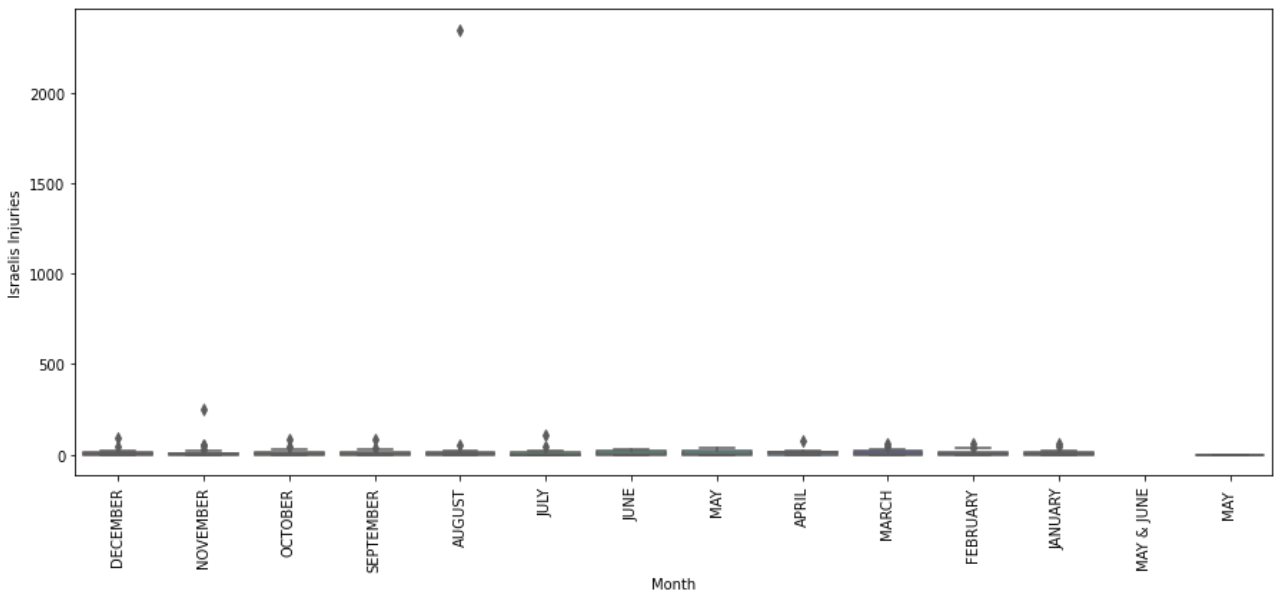
```
for i in df1.columns:
    for j in df1.columns:
        if i != j:
            fig = px.scatter(df1, x=j, y=i, title=f'Scatter Plot: {i} vs {j}')
            fig.show()
```

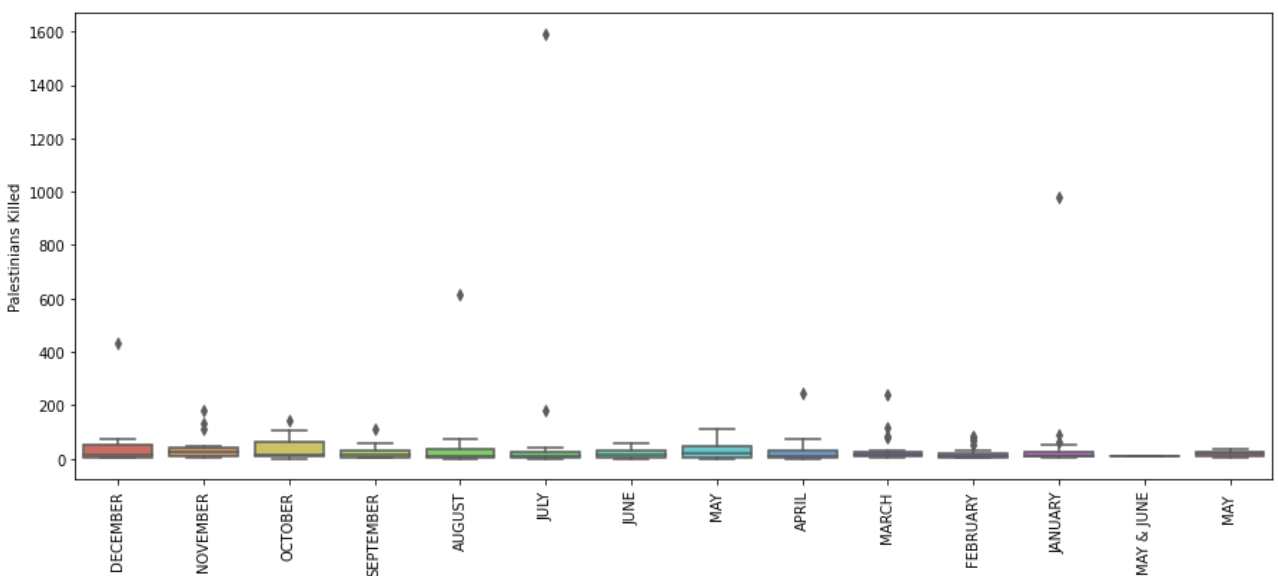
In [29]:

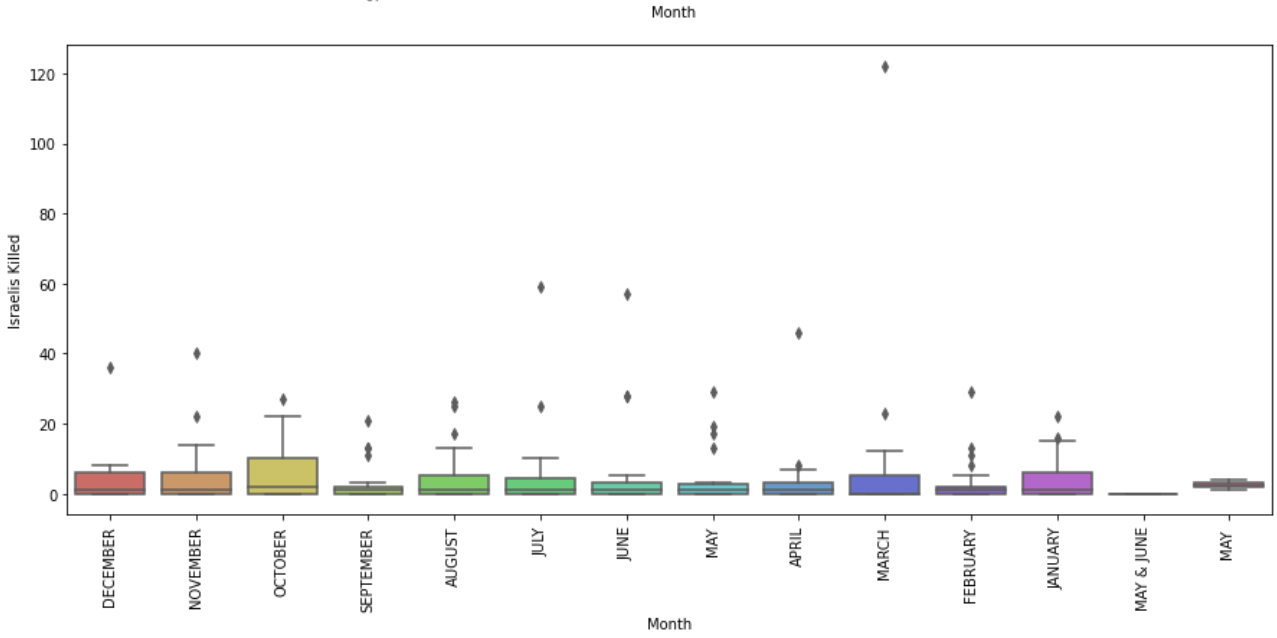
```
for i in df1.columns:
    plt.figure(figsize=(15,6))
    sns.boxplot(x = df['Month'] , y = df1[i] , data = df, palette = 'hls')
    plt.xticks(rotation = 90)
    plt.show()
```


Year
2015
2010
2005
2000
DECEMBER
NOVEMBER
OCTOBER
SEPTEMBER
AUGUST
JULY
JUNE
MAY
APRIL
MARCH
FEBRUARY
JANUARY
MAY & JUNE
MAY
Month


Palestinians Injuries
14000
12000
10000
8000
6000
4000
2000
0
DECEMBER
NOVEMBER
OCTOBER
SEPTEMBER
AUGUST
JULY
JUNE
MAY
APRIL
MARCH
FEBRUARY
JANUARY
MAY & JUNE
MAY
Month

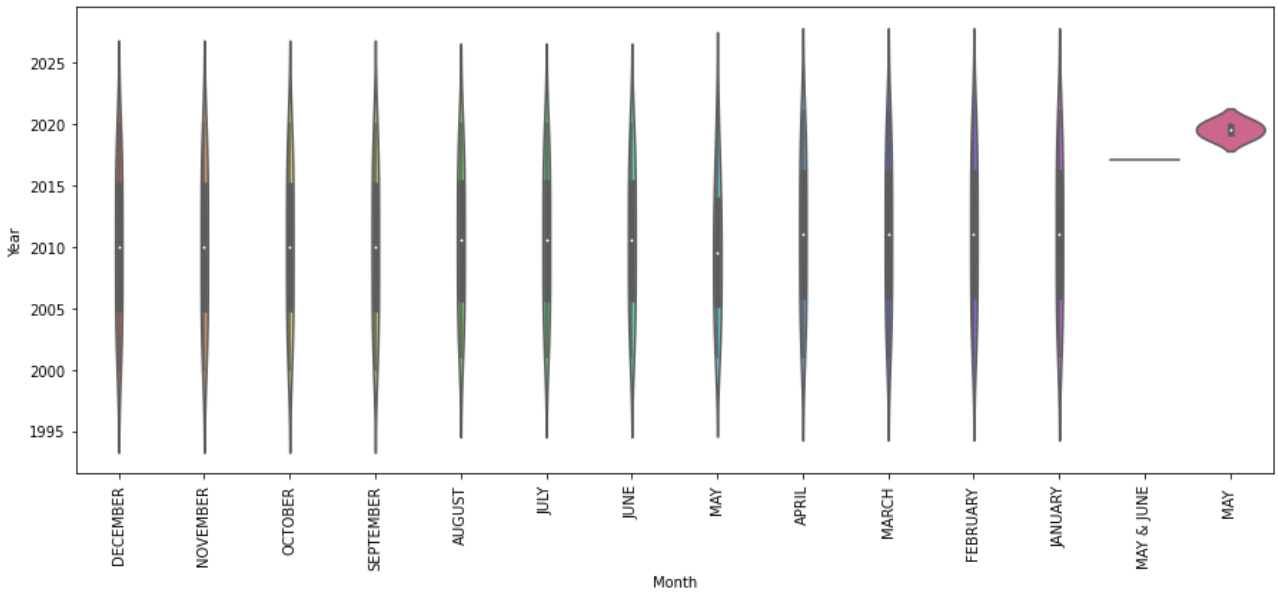

Israelis Injuries
2000
1500
1000
500
0
DECEMBER
NOVEMBER
OCTOBER
SEPTEMBER
AUGUST
JULY
JUNE
MAY
APRIL
MARCH
FEBRUARY
JANUARY
MAY & JUNE
MAY
Month

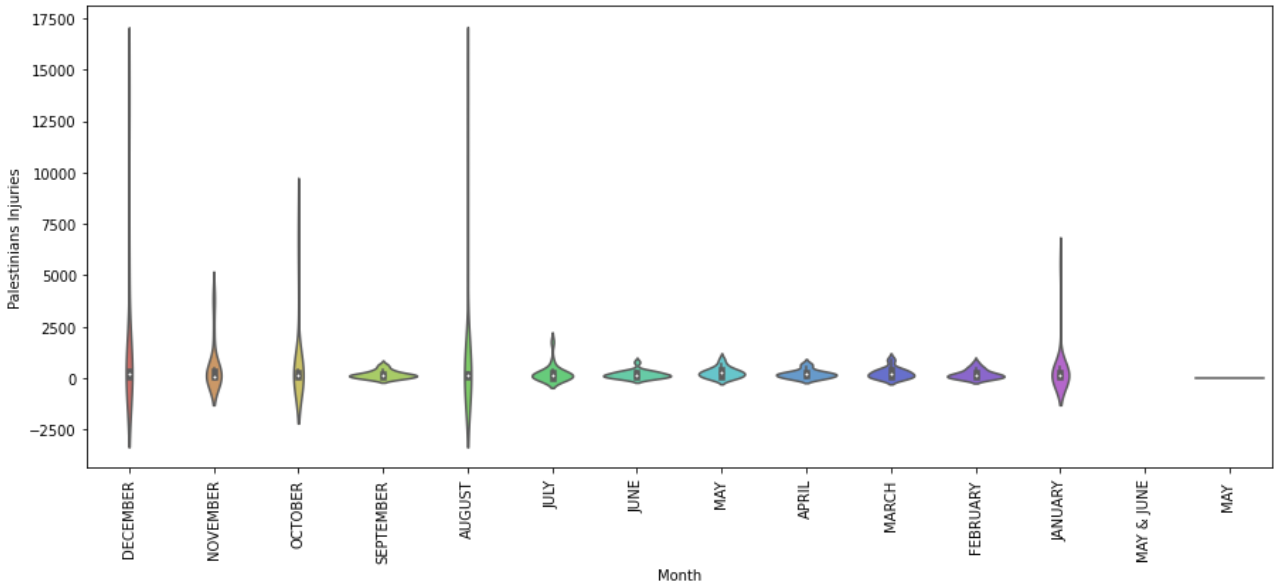

Palestinians Killed
1600
1400
1200
1000
800
600
400
200
0
DECEMBER
NOVEMBER
OCTOBER
SEPTEMBER
AUGUST
JULY
JUNE
MAY
APRIL
MARCH
FEBRUARY
JANUARY
MAY & JUNE
MAY

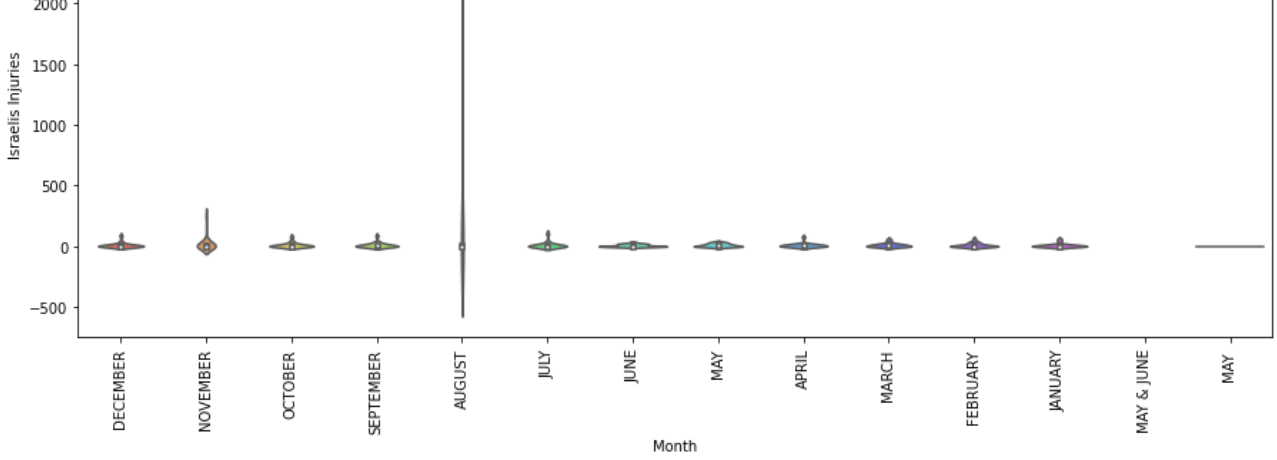


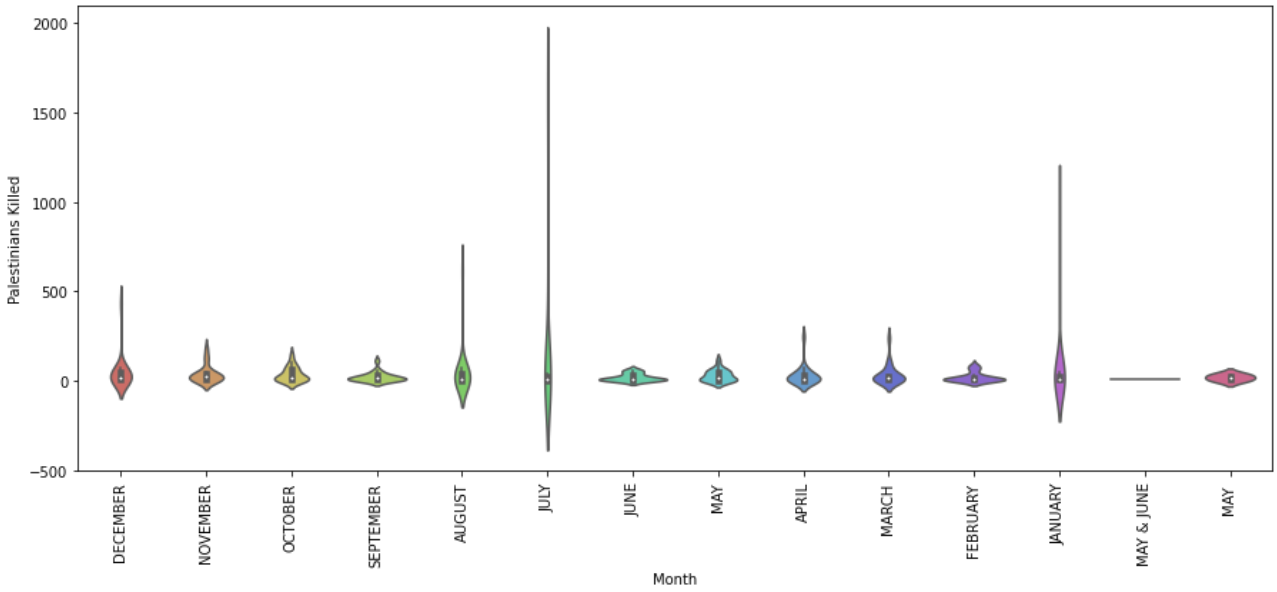
In [30]:

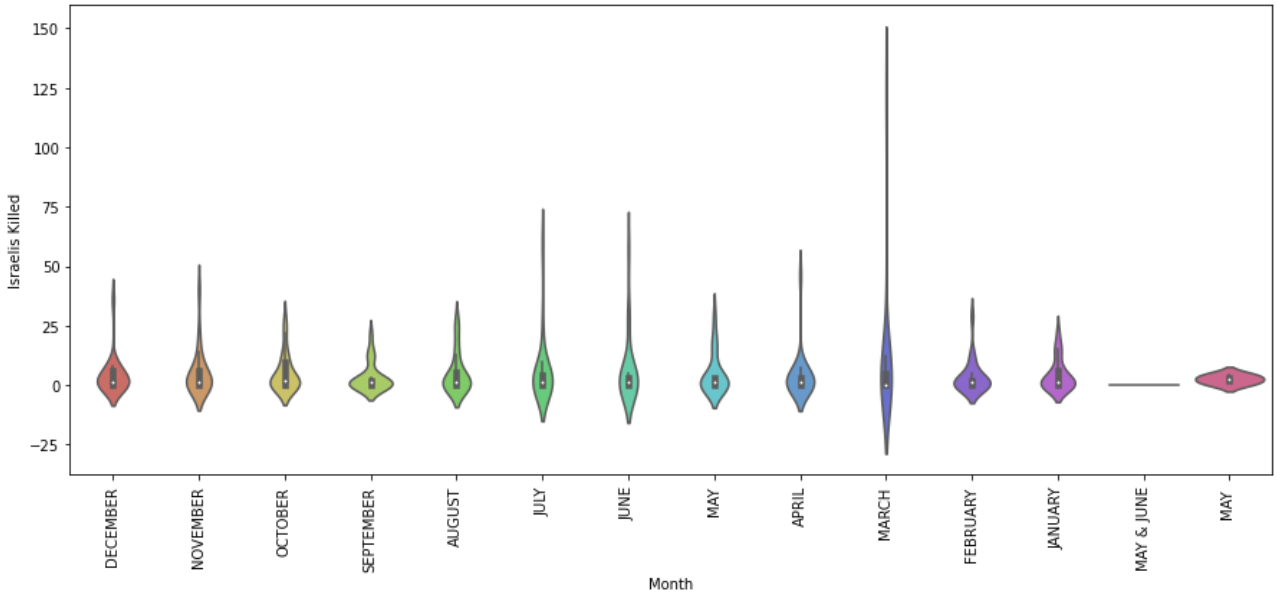
```
for i in df1.columns:
    plt.figure(figsize=(15,6))
    sns.violinplot(x = df['Month'] , y = df1[i] , data = df, palette = 'hls')
    plt.xticks(rotation = 90)
    plt.show()
```











In [31]:

```
for i in df1.columns:
    fig = px.box(df1, x=df['Month'], y=i, title=f'Box Plot: {i} by Month')
    fig.update_layout(xaxis_tickangle=-45)
    fig.show()
```

In [32]:

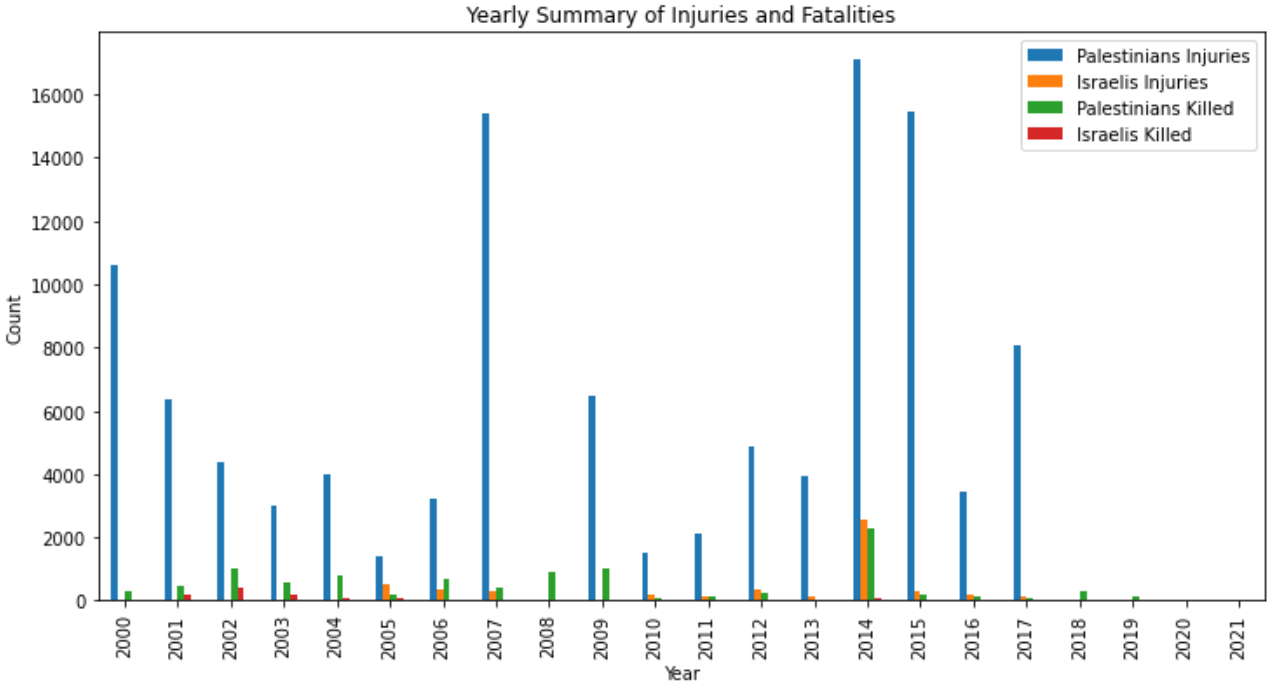
```
for i in df1.columns:
    fig = px.violin(df1, x=df['Month'], y=i, title=f'Box Plot: {i} by Month')
    fig.update_layout(xaxis_tickangle=-45)
    fig.show()
```

In [33]:
```
fig = px.line(df, x='Year', y=['Palestinians Injuries', 'Israelis Injuries', 'Palestin
fig.show()
```

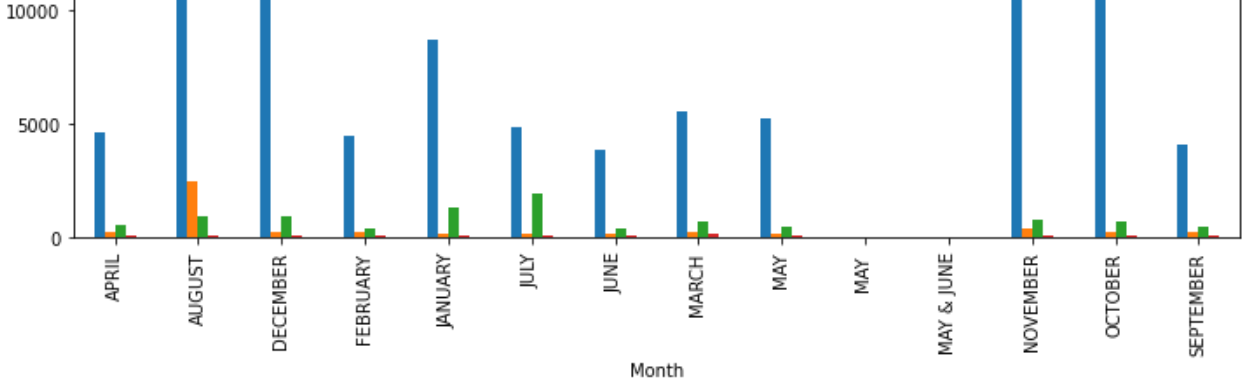
In [34]:
```
fig = px.line(df, x='Month', y=['Palestinians Injuries', 'Israelis Injuries', 'Palesti
fig.show()
```

In [35]:
```
for i in ['Palestinians Injuries', 'Israelis Injuries', 'Palestinians Killed', 'Israel
    fig = px.box(df, x='Month', y=i, title=f'Box Plot: {i} by Month')
    fig.update_layout(xaxis_tickangle=-45)
    fig.show()
```

In [36]:
```
yearly_summary = df.groupby('Year')[['Palestinians Injuries', 'Israelis Injuries', 'Pa
yearly_summary.plot(kind='bar', figsize=(12, 6), title='Yearly Summary of Injuries and
plt.xlabel('Year')
plt.ylabel('Count')
plt.show()
```



In [37]:
```
monthly_summary = df.groupby('Month')[['Palestinians Injuries', 'Israelis Injuries', '
monthly_summary.plot(kind='bar', figsize=(12, 6), title='Monthly Summary of Injuries a
plt.xlabel('Month')
plt.ylabel('Count')
plt.show()
```



In [38]:

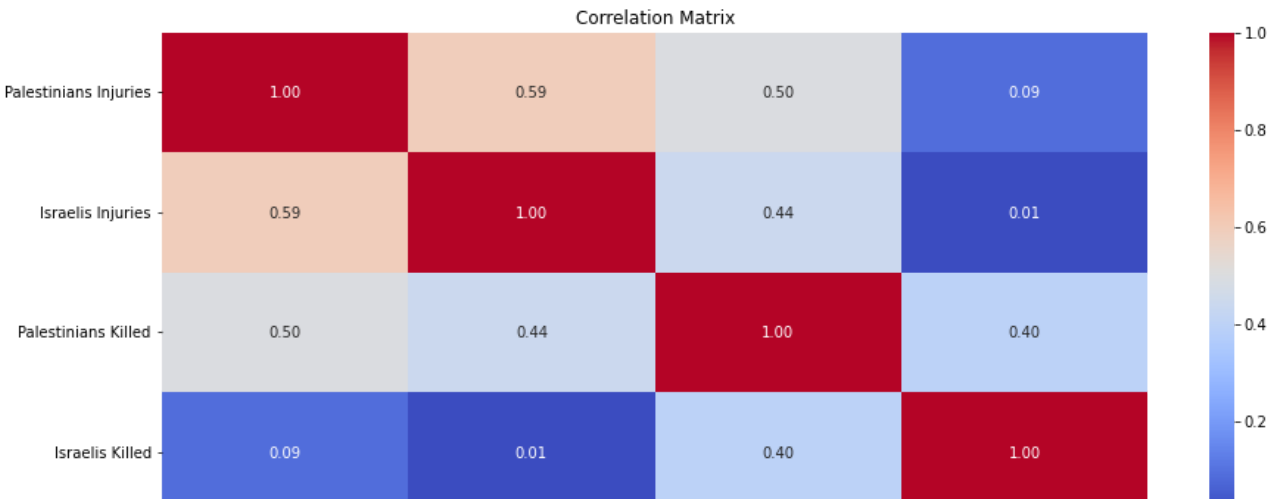
```
fig = go.Figure()

for col in yearly_summary.columns:
    fig.add_trace(go.Bar(x=yearly_summary.index, y=yearly_summary[col], name=col))

fig.update_layout(
    title='Yearly Summary of Injuries and Fatalities',
    xaxis=dict(title='Year'),
    yaxis=dict(title='Count'),
    barmode='stack'
)

fig.show()
```

In [39]:

```
fig = go.Figure()

for col in monthly_summary.columns:
    fig.add_trace(go.Bar(x=monthly_summary.index, y=monthly_summary[col], name=col))

fig.update_layout(
    title='Monthly Summary of Injuries and Fatalities',
    xaxis=dict(title='Month'),
    yaxis=dict(title='Count'),
    barmode='stack'
)

fig.show()
```

In [40]:

```
plt.figure(figsize=(15,6))
correlation_matrix = df[['Palestinians Injuries', 'Israelis Injuries', 'Palestinians K:
sns.heatmap(correlation_matrix, annot=True, cmap='coolwarm', fmt='.2f')
plt.title('Correlation Matrix')
plt.show()
```



In [41]:
```
df['Total Incidents'] = df['Palestinians Injuries'] + df['Israelis Injuries'] + df['Pal
df['Palestinian Fatality Rate'] = df['Palestinians Killed'] / df['Total Incidents']
df['Israeli Fatality Rate'] = df['Israelis Killed'] / df['Total Incidents']
```

In [42]:
```
total_incidents = df['Total Incidents'].sum()
total_palestinian_incidents = df['Total Incidents'].sum()
total_israeli_incidents = df['Total Incidents'].sum()
palestinian_proportion = total_palestinian_incidents / total_incidents
israeli_proportion = total_israeli_incidents / total_incidents
```

In [43]:
```
df
```

Out[43]:

	Year	Month	Palestinians Injuries	Israelis Injuries	Palestinians Killed	Israelis Killed	Total Incidents	Palestinian Fatality Rate	Isra Fatal Ra
0	2000	DECEMBER	781.0	0.0	51	8	840.0	0.060714	0.0095
1	2000	NOVEMBER	3838.0	0.0	112	22	3972.0	0.028197	0.0055
2	2000	OCTOBER	5984.0	0.0	104	10	6098.0	0.017055	0.0016
3	2000	SEPTEMBER	0.0	0.0	16	1	17.0	0.941176	0.0588
4	2001	DECEMBER	304.0	0.0	67	36	407.0	0.164619	0.0884
...	...	...	...	...	...	...	...	...	
244	2021	JANUARY	0.0	0.0	4	0	4.0	1.000000	0.0000
245	2021	FEBRUARY	0.0	0.0	1	0	1.0	1.000000	0.0000
246	2021	MARCH	0.0	0.0	4	0	4.0	1.000000	0.0000
247	2021	APRIL	0.0	0.0	1	0	1.0	1.000000	0.0000
248	2021	MAY	0.0	0.0	26	3	29.0	0.896552	0.1034

249 rows × 9 columns

In [44]:
```
df.columns
```

Out[44]:
```
Index(['Year', 'Month', 'Palestinians Injuries', 'Israelis Injuries',
       'Palestinians Killed', 'Israelis Killed', 'Total Incidents',
       'Palestinian Fatality Rate', 'Israeli Fatality Rate'],
      dtype='object')
```

In [45]:
```
df['Group'] = df.apply(lambda row: 'Palestinian' if row['Total Incidents'] <= total_pal

total_incidents_by_group = df.groupby('Group')[['Total Incidents', 'Palestinians Kille
fatality_rate_by_group = df.groupby('Group')[['Palestinian Fatality Rate', 'Israeli Fat
```

In [46]:
```
total_incidents_by_group
```

Out[46]:

Group	Total Incidents	Palestinians Killed	Israelis Killed

Israeli	0.0	1596	59
Palestinian	126255.0	8404	1216

In [47]:
```
fatality_rate_by_group
```

Out[47]:

Group	Palestinian Fatality Rate	Israeli Fatality Rate
Israeli	NaN	NaN
Palestinian	0.262631	0.029522

In [48]:
```
yearly_trends = df.groupby('Year')[['Total Incidents', 'Palestinians Killed', 'Israelis
```

In [49]:
```
yearly_trends
```

Out[49]:

Year	Total Incidents	Palestinians Killed	Israelis Killed	Palestinian Fatality Rate	Israeli Fatality Rate
2000	2731.750000	70.750000	10.250000	0.261786	0.018881
2001	587.333333	39.166667	16.000000	0.079316	0.034477
2002	486.083333	86.000000	34.916667	0.168572	0.069055
2003	313.750000	49.000000	15.416667	0.153719	0.049717
2004	408.250000	65.500000	8.666667	0.163074	0.023705
2005	176.583333	15.833333	4.250000	0.084600	0.021419
2006	355.083333	55.416667	1.666667	0.143492	0.005107
2007	1345.416667	32.083333	1.000000	0.130732	0.004812
2008	77.083333	73.833333	3.250000	0.845548	0.154452
2009	626.333333	86.333333	0.750000	0.074554	0.002008
2010	150.500000	6.833333	0.750000	0.050325	0.007751
2011	196.750000	9.750000	0.833333	0.051855	0.003882
2012	458.416667	21.250000	0.583333	0.035463	0.000518
2013	346.583333	3.166667	0.500000	0.014054	0.001962
2014	1852.636364	189.916667	7.083333	0.026243	0.002840
2015	1332.750000	15.666667	2.000000	0.020623	0.002590
2016	310.583333	9.583333	1.000000	0.033059	0.003724
2017	759.181818	8.000000	1.583333	0.033434	0.012858
2018	25.333333	24.166667	1.166667	0.940998	0.059002
2019	13.333333	12.416667	0.916667	0.931109	0.068891
2020	3.083333	2.833333	0.250000	0.934722	0.065278
2021	7.800000	7.200000	0.600000	0.979310	0.020690

In [50]:
```
monthly_summary = df.groupby('Month')[['Total Incidents', 'Palestinians Killed', 'Israe
```

In [51]:
```
monthly_summary
```

Out[51]:

Month	Total Incidents	Palestinians Killed	Israelis Killed	Palestinian Fatality Rate	Israeli Fatality Rate
APRIL	266.095238	28.809524	4.000000	0.285901	0.011376
AUGUST	1010.550000	49.500000	5.150000	0.200155	0.086265
DECEMBER	1194.952381	45.000000	4.095238	0.234496	0.032523
FEBRUARY	250.333333	20.714286	3.619048	0.276699	0.020387
JANUARY	493.190476	64.857143	4.333333	0.291435	0.022612
JULY	291.526316	99.450000	6.000000	0.233914	0.041279
JUNE	230.100000	19.500000	6.850000	0.254669	0.021041
MARCH	319.571429	34.238095	9.190476	0.273422	0.025384
MAY	335.888889	29.222222	4.944444	0.217345	0.021899
MAY	21.000000	18.500000	2.500000	0.845946	0.154054
MAY & JUNE	NaN	6.000000	0.000000	NaN	NaN
NOVEMBER	682.333333	37.238095	5.380952	0.267773	0.015414
OCTOBER	838.380952	36.142857	5.095238	0.262823	0.024661
SEPTEMBER	232.047619	21.666667	3.380952	0.284830	0.021888

In [52]:
```
fig = go.Figure()
fig.add_trace(go.Scatter(x=df['Year'], y=df['Palestinian Fatality Rate'], mode='lines',
fig.add_trace(go.Scatter(x=df['Year'], y=df['Israeli Fatality Rate'], mode='lines', nam
fig.update_layout(title='Fatality Rates Over Time', xaxis_title='Year', yaxis_title='Fa
fig.show()
```

In [53]:
```
total_incidents = df['Total Incidents'].sum()
total_palestinian_incidents = df[df['Group'] == 'Palestinian']['Total Incidents'].sum()
total_israeli_incidents = df[df['Group'] == 'Israeli']['Total Incidents'].sum()
palestinian_proportion = total_palestinian_incidents / total_incidents
israeli_proportion = total_israeli_incidents / total_incidents
```

In [54]:
```
print('Total Incidents:', total_incidents)
print('Total Palestinian Incidents:', total_palestinian_incidents)
print('Total Israeli Incidents:', total_israeli_incidents)
print('Proportion of Palestinian Incidents:', palestinian_proportion)
print('Proportion of Israeli Incidents:', israeli_proportion)
```

```
Total Incidents: 126255.0
Total Palestinian Incidents: 126255.0
Total Israeli Incidents: 0.0
Proportion of Palestinian Incidents: 1.0
Proportion of Israeli Incidents: 0.0
```

Thanks !!!

In [ ]: