WORLD SUICIDE DATA

Description of Project

Problem Statement

The problem is to study and visualize the suicide data of 101 countries over 30 years(1985-2015) using various factors namely country ,year,sex, age, suicides_no, population, suicides/100k pop, country-year, HDI for year, gdp_for_year, gdp_per_capita, generation.

Problem Analysis

The fundamental Computational issue for this problem is the development of an algorithm and see in which countries people commit the highest no of suicides and which generation or age group has highest suicidal tendency?

Program Design

Programming requirements

The essential requirement of the program is THE DATASET. Other requirement is Anoconda Python with Jupyter notebook. Python libraries namely seaborn ,matplotlib,numpy and pandas

Data Input/Output Description

Our aim is to make general analysis of suicide rates and we will explain these rates in detail. Dataset Feature List:-> country, year, sex, </br> age, </br> suicides_no, </br> population, </br> suicides/100k pop, </br> country-year, </br> HDI for year, </br> gdp_for_year, </br> gdp_per_capita, </br> generation. </br>

Programming Steps

STEP 1 Import the DataSet(csv file) to the jupyter notebook.

STEP 2 Analyse the DataSet.

STEP 3 Gather the relevant information from the DataSet.

STEP 4 Make the Queries from the information gathered.

STEP 5 Find the solutions of the queries and visualize the result.

Implementation of the Queries & its output

In [1]:

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

Q.1 Read master.csv as a dataframe.

```
df=pd.read_csv("master.csv")
df
```

	country	year	sex	age	suicides_no	population	suicides/100k pop	country-year	HDI for year	gdp_for_year ($)	gdp_p
0	Albania	1987	male	15-24 years	21	312900	6.71	Albania1987	NaN	2,156,624,900	
1	Albania	1987	male	35-54 years	16	308000	5.19	Albania1987	NaN	2,156,624,900	
2	Albania	1987	female	15-24 years	14	289700	4.83	Albania1987	NaN	2,156,624,900	
3	Albania	1987	male	75+ years	1	21800	4.59	Albania1987	NaN	2,156,624,900	
4	Albania	1987	male	25-34 years	9	274300	3.28	Albania1987	NaN	2,156,624,900	
5	Albania	1987	female	75+ years	1	35600	2.81	Albania1987	NaN	2,156,624,900	
6	Albania	1987	female	35-54 years	6	278800	2.15	Albania1987	NaN	2,156,624,900	
7	Albania	1987	female	25-34 years	4	257200	1.56	Albania1987	NaN	2,156,624,900	
8	Albania	1987	male	55-74 years	1	137500	0.73	Albania1987	NaN	2,156,624,900	
9	Albania	1987	female	5-14 years	0	311000	0.00	Albania1987	NaN	2,156,624,900	
10	Albania	1987	female	55-74 years	0	144600	0.00	Albania1987	NaN	2,156,624,900	
11	Albania	1987	male	5-14 years	0	338200	0.00	Albania1987	NaN	2,156,624,900	
12	Albania	1988	female	75+ years	2	36400	5.49	Albania1988	NaN	2,126,000,000	
13	Albania	1988	male	15-24 years	17	319200	5.33	Albania1988	NaN	2,126,000,000	
14	Albania	1988	male	75+ years	1	22300	4.48	Albania1988	NaN	2,126,000,000	
15	Albania	1988	male	35-54 years	14	314100	4.46	Albania1988	NaN	2,126,000,000	
16	Albania	1988	male	55-74 years	4	140200	2.85	Albania1988	NaN	2,126,000,000	
17	Albania	1988	female	15-24 years	8	295600	2.71	Albania1988	NaN	2,126,000,000	
18	Albania	1988	female	55-74 years	3	147500	2.03	Albania1988	NaN	2,126,000,000	
19	Albania	1988	female	25-34 years	5	262400	1.91	Albania1988	NaN	2,126,000,000	
20	Albania	1988	male	25-34 years	5	279900	1.79	Albania1988	NaN	2,126,000,000	
21	Albania	1988	female	35-54 years	4	284500	1.41	Albania1988	NaN	2,126,000,000	
22	Albania	1988	female	5-14 years	0	317200	0.00	Albania1988	NaN	2,126,000,000	
23	Albania	1988	male	5-14 years	0	345000	0.00	Albania1988	NaN	2,126,000,000	

	country	year	sex	age	suicides_no	population	suicides/100k pop	country-year	HDI for year	gdp_for_year ($)	gdp_p
24	Albania	1989	male	75+ years	3	32500	8.89	Albania1989	NaN	2,335,124,988	
25	Albania	1989	male	25-34 years	18	283600	6.35	Albania1989	NaN	2,335,124,988	
26	Albania	1989	male	35-54 years	15	318400	4.71	Albania1989	NaN	2,335,124,988	
27	Albania	1989	male	55-74 years	6	142100	4.22	Albania1989	NaN	2,335,124,988	
28	Albania	1989	male	15-24 years	12	323500	3.71	Albania1989	NaN	2,335,124,988	
29	Albania	1989	female	35-54 years	7	288600	2.43	Albania1989	NaN	2,335,124,988	
...	...	...	...	...	...	...	...	...	...	...	
27790	Uzbekistan	2012	female	25-34 years	148	2556673	5.79	Uzbekistan2012	0.668	51,821,573,338	
27791	Uzbekistan	2012	female	35-54 years	89	3474788	2.56	Uzbekistan2012	0.668	51,821,573,338	
27792	Uzbekistan	2012	male	5-14 years	67	2701361	2.48	Uzbekistan2012	0.668	51,821,573,338	
27793	Uzbekistan	2012	female	55-74 years	25	1283060	1.95	Uzbekistan2012	0.668	51,821,573,338	
27794	Uzbekistan	2012	female	75+ years	4	338557	1.18	Uzbekistan2012	0.668	51,821,573,338	
27795	Uzbekistan	2012	female	5-14 years	16	2578408	0.62	Uzbekistan2012	0.668	51,821,573,338	
27796	Uzbekistan	2013	male	35-54 years	481	3346411	14.37	Uzbekistan2013	0.672	57,690,453,461	
27797	Uzbekistan	2013	male	25-34 years	328	2644648	12.40	Uzbekistan2013	0.672	57,690,453,461	
27798	Uzbekistan	2013	female	15-24 years	323	3039740	10.63	Uzbekistan2013	0.672	57,690,453,461	
27799	Uzbekistan	2013	male	15-24 years	320	3171202	10.09	Uzbekistan2013	0.672	57,690,453,461	
27800	Uzbekistan	2013	male	55-74 years	119	1202790	9.89	Uzbekistan2013	0.672	57,690,453,461	
27801	Uzbekistan	2013	male	75+ years	13	221002	5.88	Uzbekistan2013	0.672	57,690,453,461	
27802	Uzbekistan	2013	female	25-34 years	146	2647820	5.51	Uzbekistan2013	0.672	57,690,453,461	
27803	Uzbekistan	2013	female	35-54 years	99	3547895	2.79	Uzbekistan2013	0.672	57,690,453,461	
27804	Uzbekistan	2013	female	75+ years	8	345180	2.32	Uzbekistan2013	0.672	57,690,453,461	
27805	Uzbekistan	2013	male	5-14 years	61	2720938	2.24	Uzbekistan2013	0.672	57,690,453,461	
27806	Uzbekistan	2013	female	55-74 years	21	1356298	1.55	Uzbekistan2013	0.672	57,690,453,461	
27807	Uzbekistan	2013	female	5-14 years	31	2595000	1.19	Uzbekistan2013	0.672	57,690,453,461	
27808	Uzbekistan	2014	male	35-54 years	519	3421300	15.17	Uzbekistan2014	0.675	63,067,077,179	
27809	Uzbekistan	2014	male	25-34 years	318	2739150	11.61	Uzbekistan2014	0.675	63,067,077,179	
27810	Uzbekistan	2014	female	15-24 years	347	2992817	11.59	Uzbekistan2014	0.675	63,067,077,179	
27811	Uzbekistan	2014	male	55-74 years	144	1271111	11.33	Uzbekistan2014	0.675	63,067,077,179	

	country	year	sex	age	suicides_no	population	suicides/100k pop	country-year	HDI for year	gdp_for_year	gdp_pe
27812	Uzbekistan	2014	male	15-24 years	347	3126905	11.10	Uzbekistan2014	0.675	63,067,077,179	
27813	Uzbekistan	2014	male	75+ years	17	224995	7.56	Uzbekistan2014	0.675	63,067,077,179	
27814	Uzbekistan	2014	female	25-34 years	162	2735238	5.92	Uzbekistan2014	0.675	63,067,077,179	
27815	Uzbekistan	2014	female	35-54 years	107	3620833	2.96	Uzbekistan2014	0.675	63,067,077,179	
27816	Uzbekistan	2014	female	75+ years	9	348465	2.58	Uzbekistan2014	0.675	63,067,077,179	
27817	Uzbekistan	2014	male	5-14 years	60	2762158	2.17	Uzbekistan2014	0.675	63,067,077,179	
27818	Uzbekistan	2014	female	5-14 years	44	2631600	1.67	Uzbekistan2014	0.675	63,067,077,179	
27819	Uzbekistan	2014	female	55-74 years	21	1438935	1.46	Uzbekistan2014	0.675	63,067,077,179	

27820 rows × 12 columns

Q.2 Check the head of the DataFrame.

In [3]:

```
df.head()
```

Out[3]:

	country	year	sex	age	suicides_no	population	suicides/100k pop	country-year	HDI for year	gdp_for_year ($)	gdp_per_capita ($)	ger
0	Albania	1987	male	15-24 years	21	312900	6.71	Albania1987	NaN	2,156,624,900	796	Ger
1	Albania	1987	male	35-54 years	16	308000	5.19	Albania1987	NaN	2,156,624,900	796	
2	Albania	1987	female	15-24 years	14	289700	4.83	Albania1987	NaN	2,156,624,900	796	Ger
3	Albania	1987	male	75+ years	1	21800	4.59	Albania1987	NaN	2,156,624,900	796	Ger
4	Albania	1987	male	25-34 years	9	274300	3.28	Albania1987	NaN	2,156,624,900	796	B

Q.3 Display the rows and columns of the dataset.

In [4]:

```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 27820 entries, 0 to 27819
Data columns (total 12 columns):
country              27820 non-null object
year                 27820 non-null int64
sex                  27820 non-null object
age                  27820 non-null object
suicides_no          27820 non-null int64
population           27820 non-null int64
suicides/100k pop    27820 non-null float64
country-year         27820 non-null object
HDI for year         8364 non-null float64
 gdp_for_year ($)    27820 non-null object
```

```
gdp_per_capita ($)       27820 non-null int64
generation              27820 non-null object
dtypes: float64(2), int64(4), object(6)
memory usage: 2.5+ MB
```

In [5]:

```python
df.describe()
```

Out[5]:

	year	suicides_no	population	suicides/100k pop	HDI for year	gdp_per_capita ($)
count	27820.000000	27820.000000	2.782000e+04	27820.000000	8364.000000	27820.000000
mean	2001.258375	242.574407	1.844794e+06	12.816097	0.776601	16866.464414
std	8.469055	902.047917	3.911779e+06	18.961511	0.093367	18887.576472
min	1985.000000	0.000000	2.780000e+02	0.000000	0.483000	251.000000
25%	1995.000000	3.000000	9.749850e+04	0.920000	0.713000	3447.000000
50%	2002.000000	25.000000	4.301500e+05	5.990000	0.779000	9372.000000
75%	2008.000000	131.000000	1.486143e+06	16.620000	0.855000	24874.000000
max	2016.000000	22338.000000	4.380521e+07	224.970000	0.944000	126352.000000

Q.4 Check for null value and delete them.

In [6]:

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

Out[6]:

```
country                   0
year                      0
sex                       0
age                       0
suicides_no               0
population                0
suicides/100k pop         0
country-year              0
HDI for year          19456
 gdp_for_year ($)         0
gdp_per_capita ($)        0
generation                0
dtype: int64
```

In [7]:

```python
df.drop(['HDI for year','country-year'],axis=1,inplace=True)
```

In [8]:

```python
df.columns
```

Out[8]:

```
Index(['country', 'year', 'sex', 'age', 'suicides_no', 'population',
       'suicides/100k pop', ' gdp_for_year ($) ', 'gdp_per_capita ($)',
       'generation'],
      dtype='object')
```

Q.5 Which country has maximum number of suicides and in which years ?

In [9]:

```python
df[df['suicides_no']==df['suicides_no'].max()][['country','year']]
```

Out[9]:

	country	year
20996	Russian Federation	1994

Q.6 Which country has minimum number of suicides ?

In [10]:

```python
df[df['suicides_no']==df['suicides_no'].min()]['country']
```

Out[10]:

```
9                     Albania
10                    Albania
11                    Albania
22                    Albania
23                    Albania
33                    Albania
34                    Albania
35                    Albania
44                    Albania
45                    Albania
46                    Albania
47                    Albania
59                    Albania
71                    Albania
107                   Albania
119                   Albania
131                   Albania
142                   Albania
143                   Albania
179                   Albania
192                   Albania
193                   Albania
194                   Albania
195                   Albania
196                   Albania
197                   Albania
198                   Albania
199                   Albania
200                   Albania
201                   Albania
                      ...
26427     United Arab Emirates
26436     United Arab Emirates
26437     United Arab Emirates
26438     United Arab Emirates
26439     United Arab Emirates
26447     United Arab Emirates
26448     United Arab Emirates
26449     United Arab Emirates
26450     United Arab Emirates
26451     United Arab Emirates
26460     United Arab Emirates
26461     United Arab Emirates
26462     United Arab Emirates
26463     United Arab Emirates
26473     United Arab Emirates
26474     United Arab Emirates
26475     United Arab Emirates
26547           United Kingdom
26571           United Kingdom
26619           United Kingdom
27243                  Uruguay
27267                  Uruguay
27279                  Uruguay
27315                  Uruguay
27327                  Uruguay
27363                  Uruguay
27459                  Uruguay
27471                  Uruguay
```

```
27495                Uruguay
27543                Uruguay
Name: country, Length: 4281, dtype: object
```

In [11]:

```
country=df[df['suicides_no']==df['suicides_no'].min()]['country']
country.unique()
```

Out[11]:

```
array(['Albania', 'Antigua and Barbuda', 'Armenia', 'Aruba', 'Australia',
       'Austria', 'Azerbaijan', 'Bahamas', 'Bahrain', 'Barbados',
       'Belgium', 'Belize', 'Bosnia and Herzegovina', 'Bulgaria',
       'Cabo Verde', 'Chile', 'Colombia', 'Costa Rica', 'Croatia', 'Cuba',
       'Cyprus', 'Czech Republic', 'Denmark', 'Dominica', 'El Salvador',
       'Estonia', 'Fiji', 'Finland', 'Georgia', 'Greece', 'Grenada',
       'Guatemala', 'Guyana', 'Hungary', 'Iceland', 'Ireland', 'Israel',
       'Italy', 'Jamaica', 'Kiribati', 'Kuwait', 'Kyrgyzstan', 'Latvia',
       'Lithuania', 'Luxembourg', 'Macau', 'Maldives', 'Malta',
       'Mauritius', 'Montenegro', 'Netherlands', 'New Zealand',
       'Nicaragua', 'Norway', 'Oman', 'Panama', 'Paraguay', 'Philippines',
       'Portugal', 'Puerto Rico', 'Qatar', 'Romania',
       'Saint Kitts and Nevis', 'Saint Lucia',
       'Saint Vincent and Grenadines', 'San Marino', 'Serbia',
       'Seychelles', 'Singapore', 'Slovakia', 'Slovenia', 'South Africa',
       'Spain', 'Suriname', 'Sweden', 'Switzerland', 'Thailand',
       'Trinidad and Tobago', 'Turkmenistan', 'United Arab Emirates',
       'United Kingdom', 'Uruguay'], dtype=object)
```

In [12]:

```
country.nunique()
```

Out[12]:

```
82
```

In [13]:

```
df['suicides_no'].min()
```

Out[13]:

```
0
```

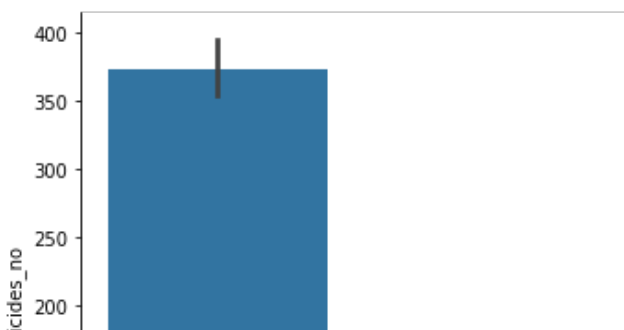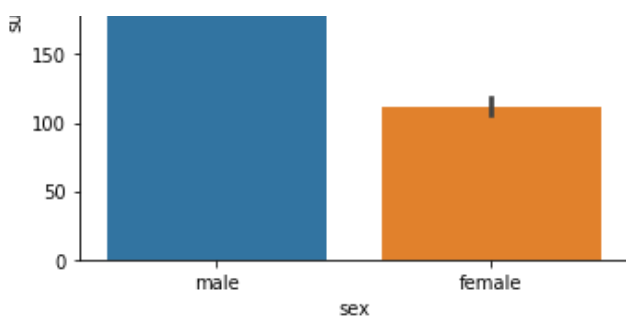**Q.7 Number of male and female suicides ?**

In [14]:

```
sns.factorplot(x='sex',y='suicides_no',data=df,kind='bar')
```

```
C:\Users\ritik\Anaconda3\lib\site-packages\seaborn\categorical.py:3666: UserWarning: The
`factorplot` function has been renamed to `catplot`. The original name will be removed in
a future release. Please update your code. Note that the default `kind` in `factorplot` (
`'point'`) has changed `'strip'` in `catplot`.
  warnings.warn(msg)
```

Out[14]:

```
<seaborn.axisgrid.FacetGrid at 0x1e6e66da438>
```

```
df[df['sex']=='female']['suicides_no'].max()
```

Out[15]:

4053

In [16]:

```
df[df['sex']=='female']['suicides_no'].count()
```

Out[16]:

13910

Q. Total number of suicides in different age groups?

In [17]:

```
df.groupby('age')['suicides_no'].count()
```

Out[17]:

```
age
15-24 years     4642
25-34 years     4642
35-54 years     4642
5-14 years      4610
55-74 years     4642
75+ years       4642
Name: suicides_no, dtype: int64
```
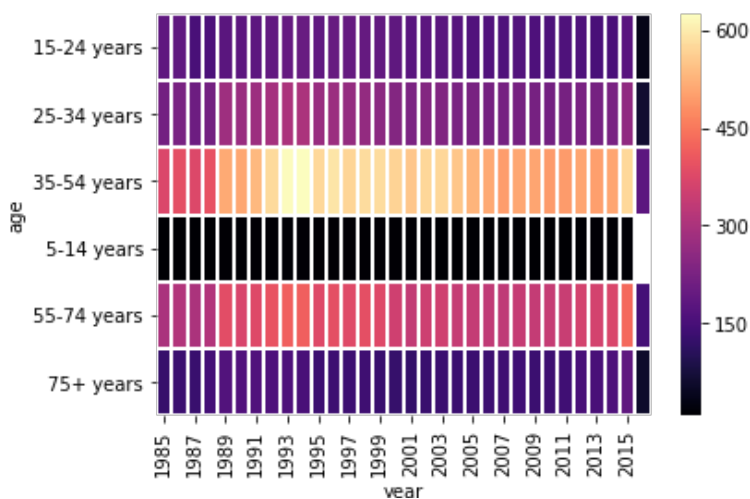
Q.8 Which age groups has most suicide tendency ?

In [18]:

```
pv = df.pivot_table(values='suicides_no',index='age',columns='year')

sns.heatmap(pv,cmap='magma',linecolor='white',linewidths=1)
```

Out[18]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x1e6e91c91d0>
```
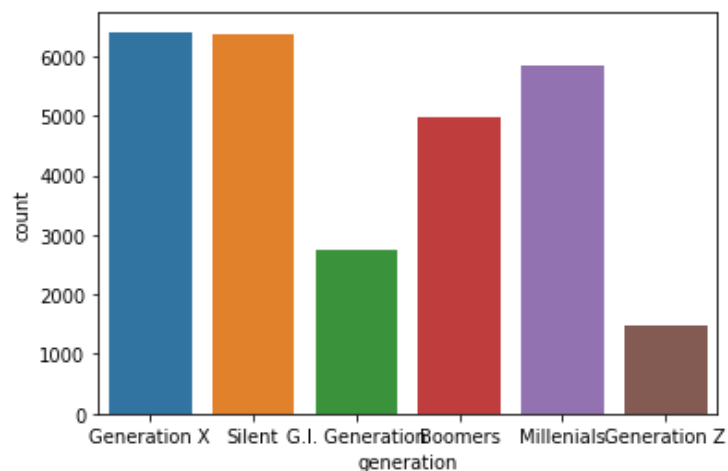
Q. Which generation has most suicide tendency ?

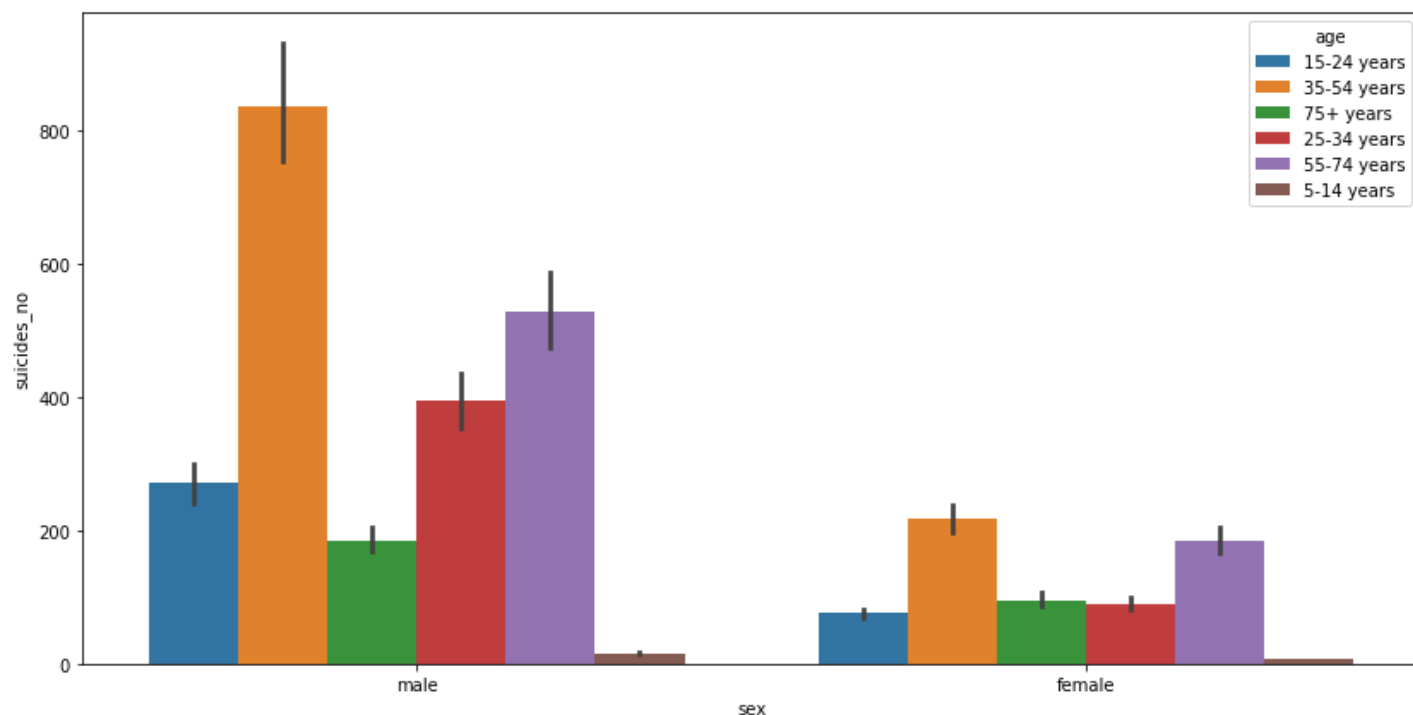In [19]:

```python
sns.countplot(df.generation)
plt.show()
```


In [20]:

```python
plt.figure(figsize=(14,7))
sns.barplot(x = 'sex', y = 'suicides_no', hue = 'age',data = df)
```

Out[20]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x1e6e8829908>
```
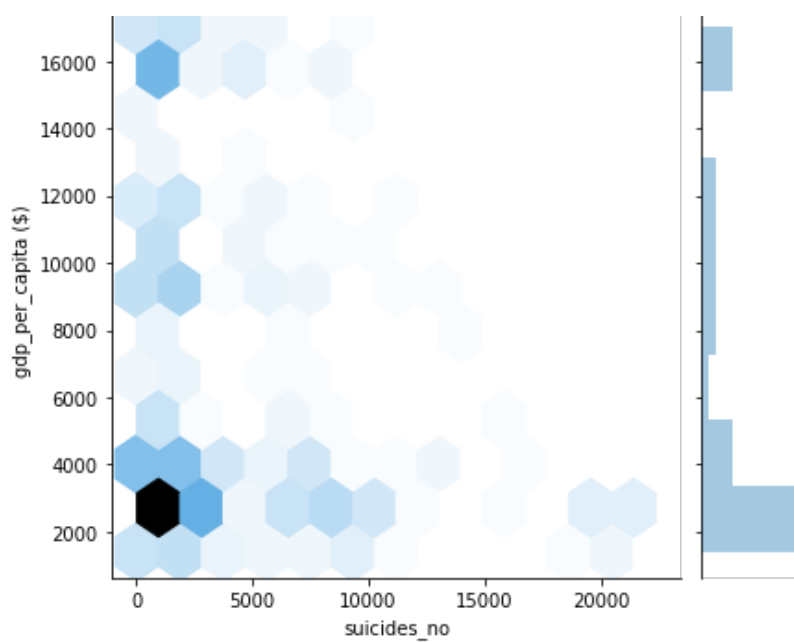

Q.Number of suicides affecting gdp in country with maximum suicides ?

In [21]:

```python
fig=sns.jointplot(y='gdp_per_capita ($)',x='suicides_no',kind='hex',data=df[df['country']
=='Russian Federation'])
plt.show()
```
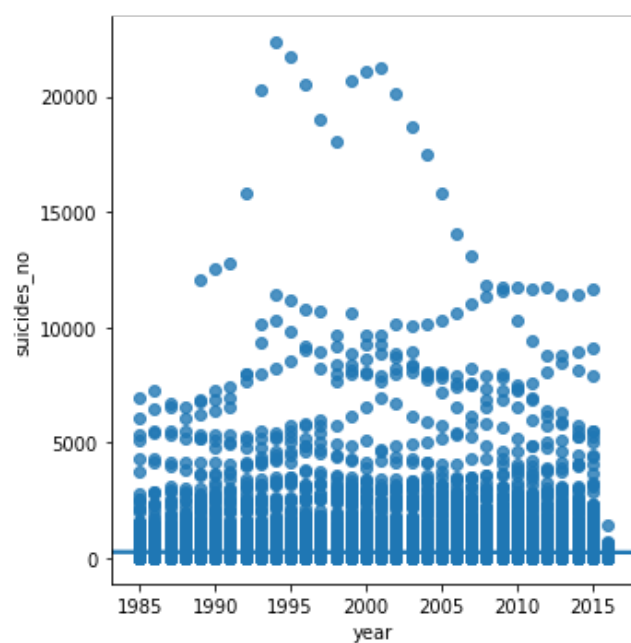
Q.No of suicides per year ?

In [22]:

```python
sns.lmplot(x='year',y='suicides_no',data=df)
```

Out[22]:

```
<seaborn.axisgrid.FacetGrid at 0x1e6e8e6e080>
```
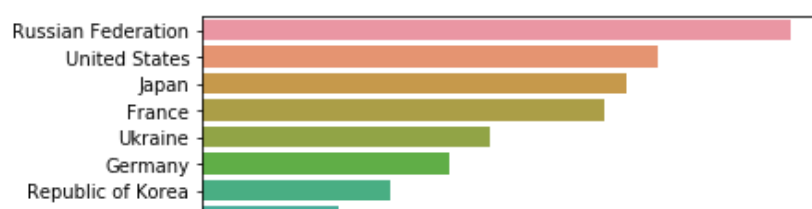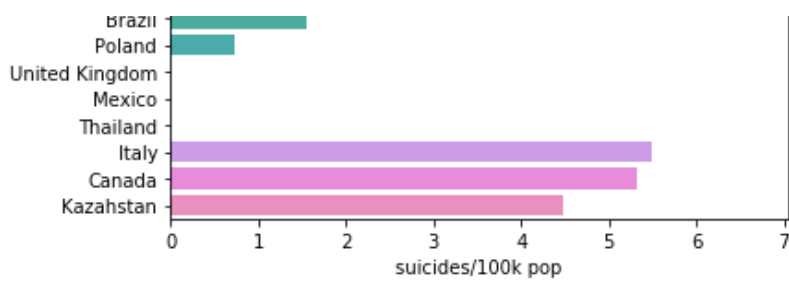

Q. Which country has maximum suicidies per 100k population?

In [23]:

```python
country=['Russian Federation','United States','Japan','France','Ukraine','Germany','Repub
lic of Korea','Brazil','Poland','United Kingdom','Mexico','Thailand','Italy','Canada','Ka
zahstan','Albania']
suicide=df['suicides/100k pop']
sns.barplot(y=country[:15],x=suicide[:15])
plt.show()
```
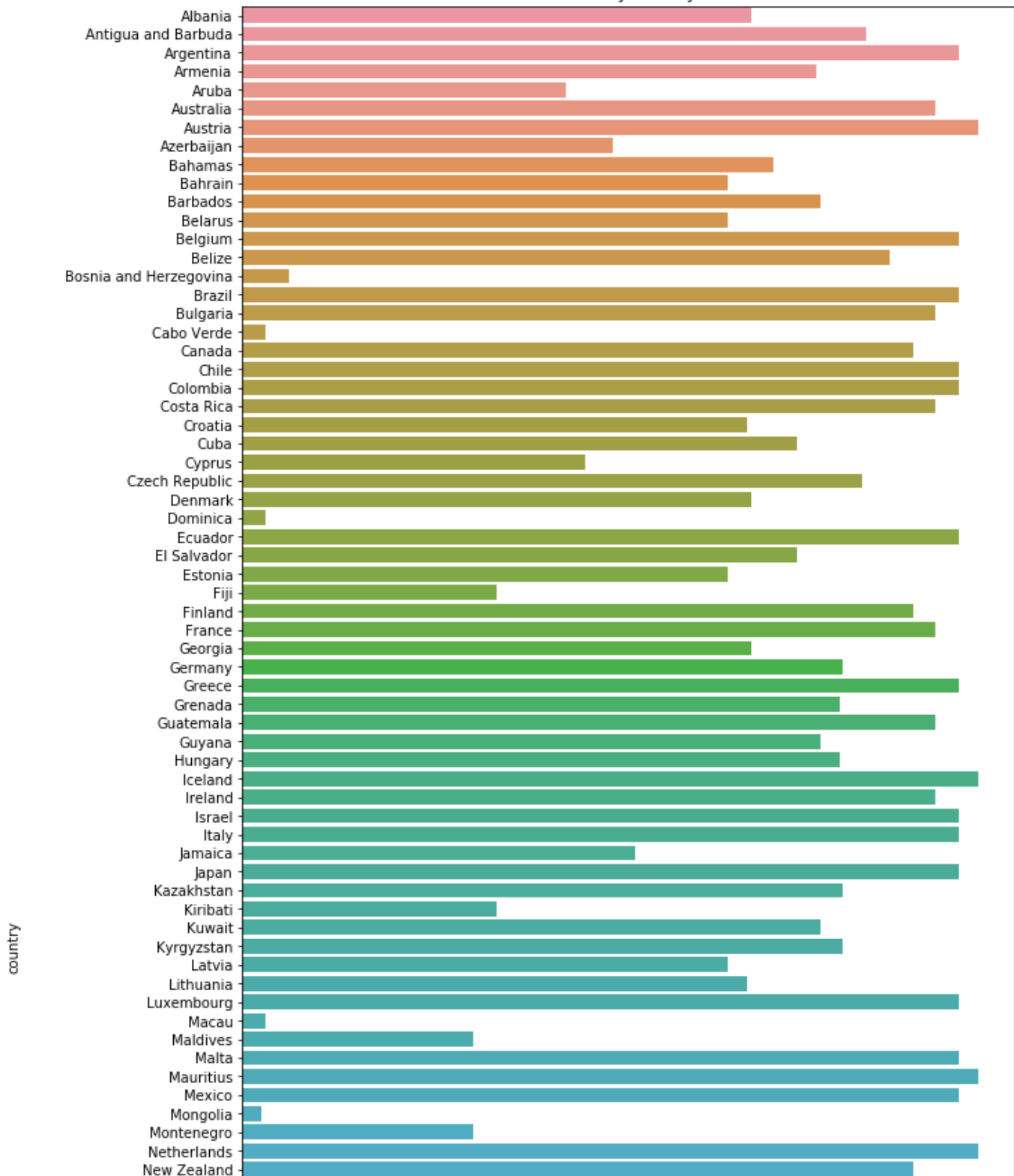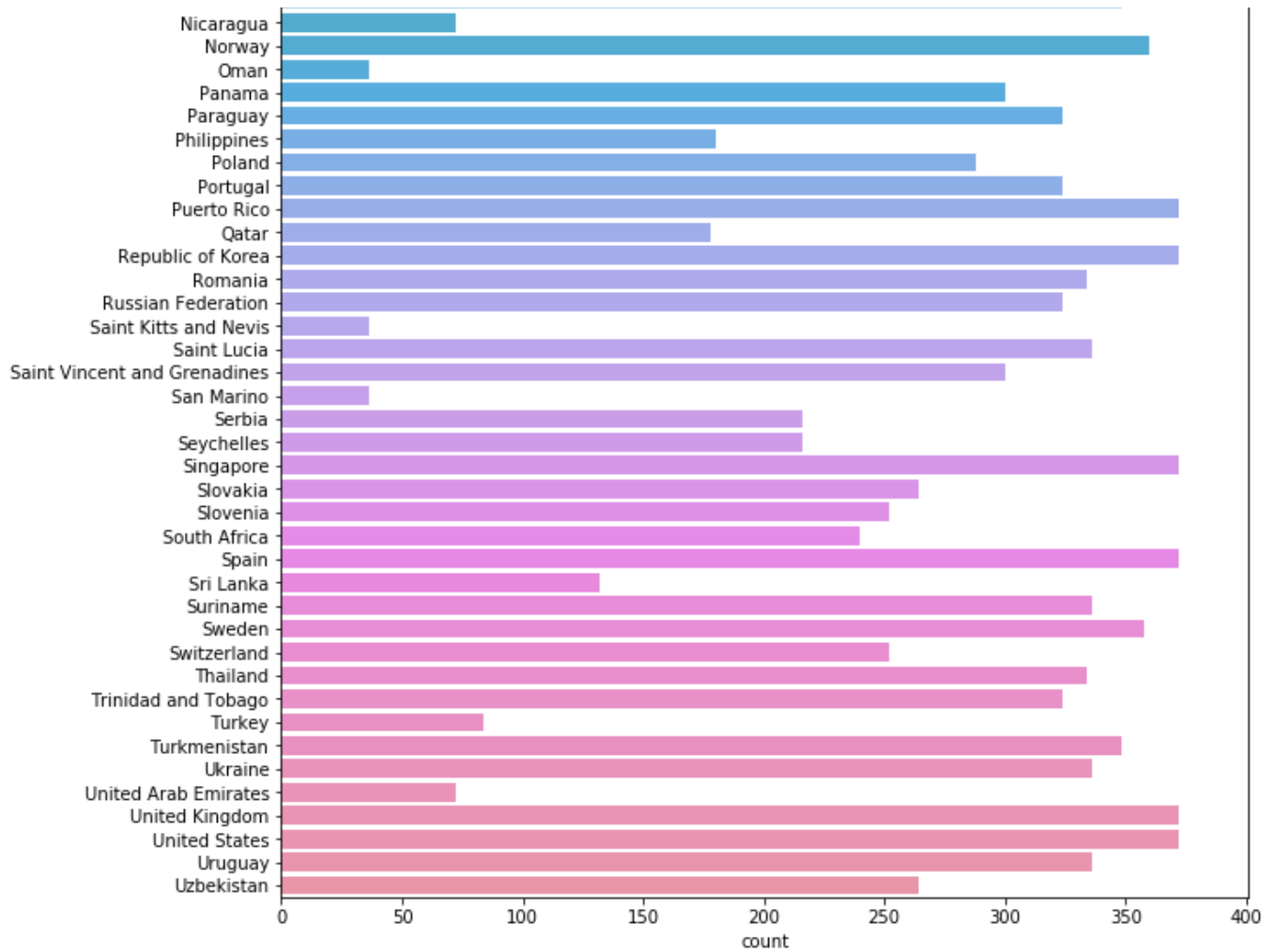
Q. Per country data

In [24]:

```python
plt.figure(figsize=(10,25))
sns.countplot(y='country', data=df)
plt.title('Data by country')
plt.show()
```

Q.GDP per capita of most and least affected countries??

In [25]:

```
df[df['suicides_no']==df['suicides_no'].max()][['country','year','gdp_per_capita ($)']]
```

Out[25]:

	country	year	gdp_per_capita ($)
20996	Russian Federation	1994	2853

In [26]:

```
gk=df[df['suicides_no']==df['suicides_no'].min()][['country','year','gdp_per_capita ($)'
]]
gk=gk.groupby(['country'])
gk=gk.first()
gk.head()
```

Out[26]:

	year	gdp_per_capita ($)
country		
Albania	1987	796
Antigua and Barbuda	1985	3850
Armenia	1990	756
Aruba	1995	17949
Australia	1990	19665

In [27]:

```
gk.tail()
```

Out[27]:

country	year	gdp_per_capita ($)
Trinidad and Tobago	1985	7317
Turkmenistan	1990	1036
United Arab Emirates	2005	42196
United Kingdom	1990	20411
Uruguay	1986	2132

DATA FOR THE YEAR 2016

In [33]:

```
data=df[df['year']==df['year'].max()]
```

In [54]:

```
data
```

Out[54]:

	country	year	sex	age	suicides_no	population	suicides/100k pop	gdp_for_year ($)	gdp_per_capita ($)	generation
1248	Armenia	2016	male	75+ years	12	61956	19.37	10,546,135,160	3788	Silent
1249	Armenia	2016	male	55-74 years	16	237813	6.73	10,546,135,160	3788	Boomers
1250	Armenia	2016	male	35-54 years	16	350633	4.56	10,546,135,160	3788	Generation X
1251	Armenia	2016	male	15-24 years	5	202220	2.47	10,546,135,160	3788	Millenials
1252	Armenia	2016	female	75+ years	2	102414	1.95	10,546,135,160	3788	Silent
1253	Armenia	2016	female	55-74 years	6	308349	1.95	10,546,135,160	3788	Boomers
1254	Armenia	2016	male	25-34 years	4	255665	1.56	10,546,135,160	3788	Millenials
1255	Armenia	2016	female	35-54 years	3	408109	0.74	10,546,135,160	3788	Generation X
1256	Armenia	2016	female	25-34 years	2	277452	0.72	10,546,135,160	3788	Millenials
1257	Armenia	2016	female	15-24 years	1	195422	0.51	10,546,135,160	3788	Millenials
2158	Austria	2016	male	75+ years	212	307692	68.90	390,799,991,147	46976	Silent
2159	Austria	2016	male	55-74 years	290	928992	31.22	390,799,991,147	46976	Boomers
2160	Austria	2016	male	35-54 years	260	1281202	20.29	390,799,991,147	46976	Generation X
2161	Austria	2016	male	25-34 years	86	605922	14.19	390,799,991,147	46976	Millenials
2162	Austria	2016	female	75+ years	61	478267	12.75	390,799,991,147	46976	Silent
2163	Austria	2016	male	15-24 years	58	525977	11.03	390,799,991,147	46976	Millenials

	country	year	sex	age	suicides_no	population	suicides/100k pop	gdp_for_year ($)	gdp_per_capita ($)	generation
2164	Austria	2016	female	55-74 years	99	1009403	9.81	390,799,991,147	46976	Boomers
2165	Austria	2016	female	35-54 years	95	1273241	7.46	390,799,991,147	46976	Generation X
2166	Austria	2016	female	15-24 years	22	488020	4.51	390,799,991,147	46976	Millenials
2167	Austria	2016	female	25-34 years	18	585913	3.07	390,799,991,147	46976	Millenials
6620	Croatia	2016	male	75+ years	104	134519	77.31	51,338,524,831	12905	Silent
6621	Croatia	2016	male	55-74 years	187	480263	38.94	51,338,524,831	12905	Boomers
6622	Croatia	2016	male	35-54 years	146	571003	25.57	51,338,524,831	12905	Generation X
6623	Croatia	2016	male	25-34 years	48	274466	17.49	51,338,524,831	12905	Millenials
6624	Croatia	2016	female	75+ years	40	246002	16.26	51,338,524,831	12905	Silent
6625	Croatia	2016	female	55-74 years	69	551758	12.51	51,338,524,831	12905	Boomers
6626	Croatia	2016	male	15-24 years	30	242287	12.38	51,338,524,831	12905	Millenials
6627	Croatia	2016	female	35-54 years	47	570380	8.24	51,338,524,831	12905	Generation X
6628	Croatia	2016	female	15-24 years	6	231038	2.60	51,338,524,831	12905	Millenials
6629	Croatia	2016	female	25-34 years	6	265327	2.26	51,338,524,831	12905	Millenials
...	...	...	...	...	...	...	...	...	...	...
20926	Romania	2016	male	55-74 years	615	2068747	29.73	187,805,922,349	10020	Boomers
20927	Romania	2016	male	75+ years	171	579838	29.49	187,805,922,349	10020	Silent
20928	Romania	2016	male	35-54 years	632	2945568	21.46	187,805,922,349	10020	Generation X
20929	Romania	2016	male	25-34 years	134	1359178	9.86	187,805,922,349	10020	Millenials
20930	Romania	2016	male	15-24 years	91	1101638	8.26	187,805,922,349	10020	Millenials
20931	Romania	2016	female	75+ years	61	997868	6.11	187,805,922,349	10020	Silent
20932	Romania	2016	female	55-74 years	112	2462909	4.55	187,805,922,349	10020	Boomers
20933	Romania	2016	female	35-54 years	96	2823207	3.40	187,805,922,349	10020	Generation X
20934	Romania	2016	female	25-34 years	27	1264645	2.13	187,805,922,349	10020	Millenials
20935	Romania	2016	female	15-24 years	14	1041307	1.34	187,805,922,349	10020	Millenials
24716	Sweden	2016	male	75+ years	100	359481	27.82	514,459,972,806	55594	Silent
24717	Sweden	2016	male	55-74 years	232	1106411	20.97	514,459,972,806	55594	Boomers
24718	Sweden	2016	male	35-54 years	266	1299990	20.46	514,459,972,806	55594	Generation X
				25-34						

	country	year	sex	age	suicides_no	population	suicides/100k pop	gdp_for_year ($)	gdp_per_capita ($)	generation
24719	Sweden	2016	male	15-24 years	114	670158	17.01	514,459,972,806	55594	Millenials
24720	Sweden	2016	male	15-24 years	70	605396	11.56	514,459,972,806	55594	Millenials
24721	Sweden	2016	female	35-54 years	119	1257582	9.46	514,459,972,806	55594	Generation X
24722	Sweden	2016	female	55-74 years	104	1120938	9.28	514,459,972,806	55594	Boomers
24723	Sweden	2016	female	75+ years	45	493341	9.12	514,459,972,806	55594	Silent
24724	Sweden	2016	female	25-34 years	44	641572	6.86	514,459,972,806	55594	Millenials
24725	Sweden	2016	female	15-24 years	36	570983	6.30	514,459,972,806	55594	Millenials
25302	Thailand	2016	male	55-74 years	734	5203957	14.10	411,755,164,833	6713	Boomers
25303	Thailand	2016	male	35-54 years	1421	10084647	14.09	411,755,164,833	6713	Generation X
25304	Thailand	2016	male	75+ years	152	1124052	13.52	411,755,164,833	6713	Silent
25305	Thailand	2016	male	25-34 years	646	4796355	13.47	411,755,164,833	6713	Millenials
25306	Thailand	2016	male	15-24 years	322	4736305	6.80	411,755,164,833	6713	Millenials
25307	Thailand	2016	female	75+ years	69	1589015	4.34	411,755,164,833	6713	Silent
25308	Thailand	2016	female	55-74 years	222	6049756	3.67	411,755,164,833	6713	Boomers
25309	Thailand	2016	female	35-54 years	375	10629684	3.53	411,755,164,833	6713	Generation X
25310	Thailand	2016	female	25-34 years	116	4702656	2.47	411,755,164,833	6713	Millenials
25311	Thailand	2016	female	15-24 years	60	4525574	1.33	411,755,164,833	6713	Millenials

160 rows × 10 columns

Q. Country with maximum suicides in year 2016?

In [50]:

```
data[data['suicides_no']==data['suicides_no'].max()][['country','age','sex','suicides_no']]
```

Out[50]:

	country	age	sex	suicides_no
25303	Thailand	35-54 years	male	1421

Q.Country with maximum suicides in year 2016?

In [53]:

```
minimum=data[data['suicides_no']==data['suicides_no'].min()][['country','age','sex','suicides_no']]
minimum=minimum.groupby('country')
minimum.first()
```

Out[53]:

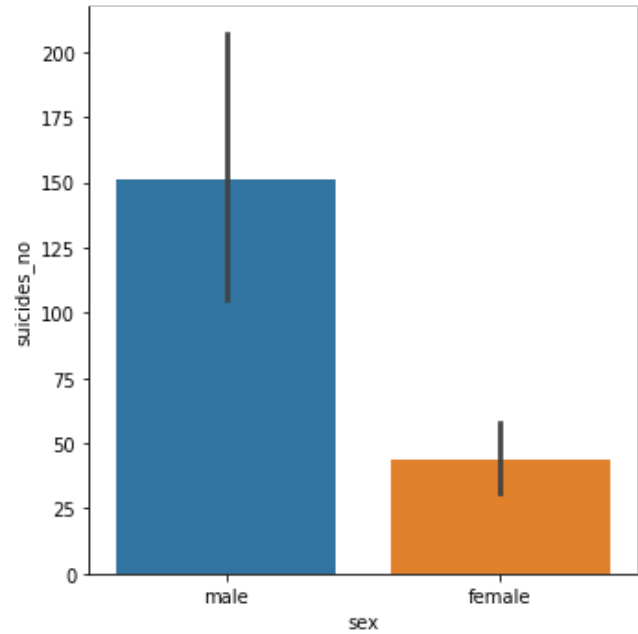|	age	sex	suicides_no
country			
Cyprus	15-24 years	female	0
Grenada	15-24 years	female	0
Iceland	15-24 years	female	0
Mauritius	75+ years	female	0
Qatar	15-24 years	female	0

Q.Comparison of male and female suicide in year 2016?

In [38]:

```
sns.factorplot(x='sex',y='suicides_no',data=data,kind='bar')
```

Out[38]:

```
<seaborn.axisgrid.FacetGrid at 0x1e6e87f0d68>
```
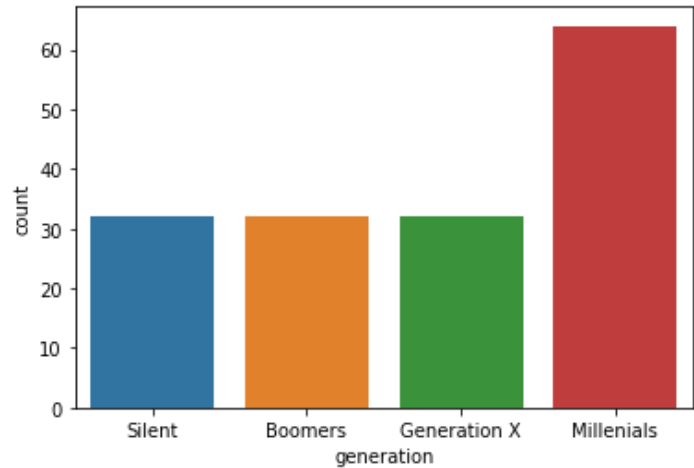

Q.Generation having maximum suicidal tendency in year 2016?

In [39]:

```
sns.countplot(data.generation)
plt.show()
```


Q. Age wise comparison of no . of suicides committed by both sex??
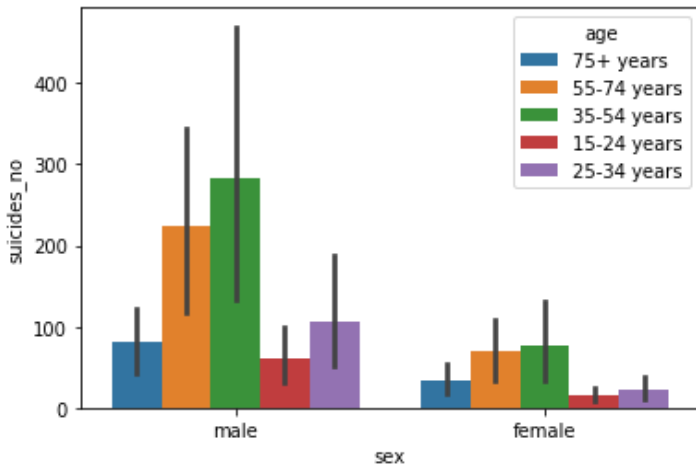
```
sns.barplot(x = 'sex', y = 'suicides_no', hue = 'age',data = data)
```

Out[42]:

```
<matplotlib.axes._subplots.AxesSubplot at 0x1e6ea87f860>
```


Q.GDP per capita of most and least affected countries in year 2016??

In [43]:

```
data[data['suicides_no']==data['suicides_no'].max()][['country','year','gdp_per_capita ($
)']]
```

Out[43]:

	country	year	gdp_per_capita ($)
25303	Thailand	2016	6713

In [48]:

```
minimum=data[data['suicides_no']==data['suicides_no'].min()][['country','year','gdp_per_c
apita ($)']]
minimum=minimum.groupby('country')
minimum.first()
```

Out[48]:

	year	gdp_per_capita ($)
country		
Cyprus	2016	25098
Grenada	2016	10838
Iceland	2016	64708
Mauritius	2016	10570
Qatar	2016	62484

Thank you