In [1]:
```
import pandas as pd
df = pd.read_csv('SYB66_246_202310_Population Growth.csv', encoding = 'latin1', header =
df
```

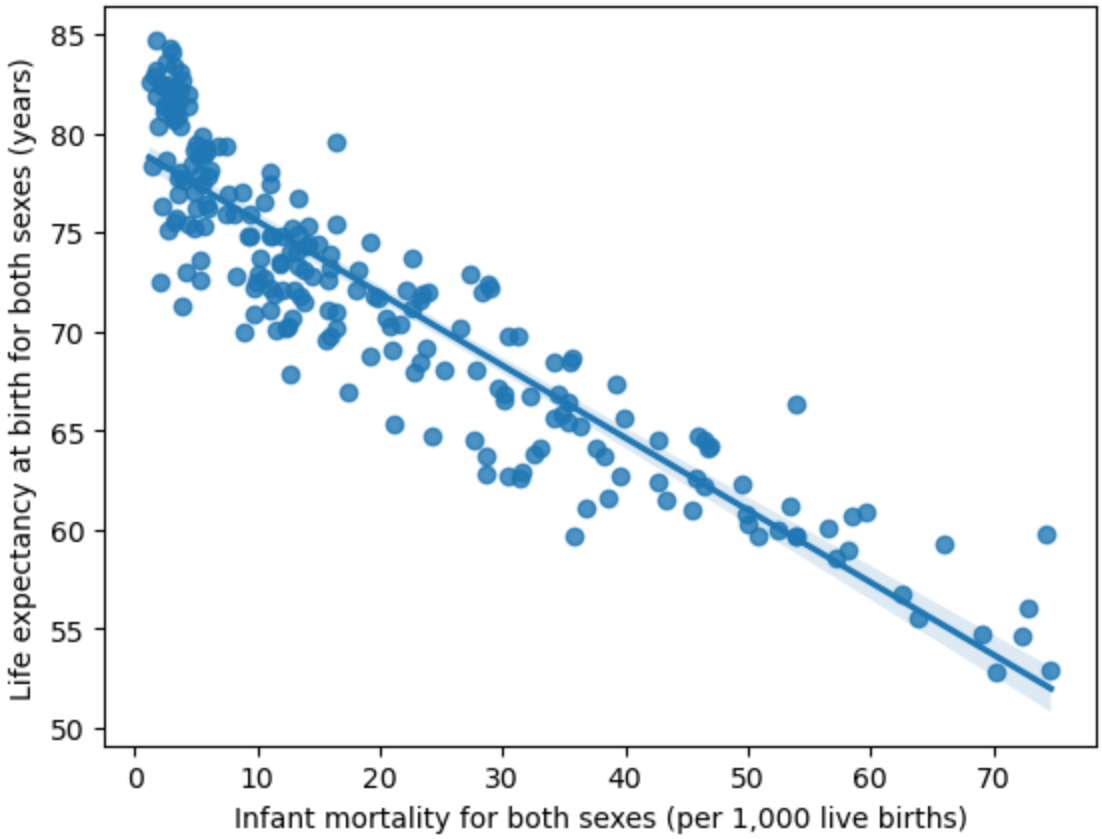
Out[1]:

	Region/Country/Area	Unnamed: 1	Year	Series	Value	Footnotes	Source
0	1	Total, all countries or areas	2010	Population annual rate of increase (percent)	1.3	NaN	United Nations Population Division, New York, ...
1	1	Total, all countries or areas	2010	Total fertility rate (children per women)	2.6	NaN	United Nations Population Division, New York, ...
2	1	Total, all countries or areas	2010	Infant mortality for both sexes (per 1,000 liv...	37.1	NaN	United Nations Statistics Division, New York, ...
3	1	Total, all countries or areas	2010	Maternal mortality ratio (deaths per 100,000 p...	254	NaN	World Health Organization (WHO), the United Na...
4	1	Total, all countries or areas	2010	Life expectancy at birth for both sexes (years)	70.1	NaN	United Nations Population Division, New York, ...
...	...	...	...	...	...	...	...
6751	722	SIDS	2022	Total fertility rate (children per women)	2.3	Projected estimate (medium fertility variant).	United Nations Population Division, New York, ...
6752	722	SIDS	2022	Infant mortality for both sexes (per 1,000 liv...	27.3	Projected estimate (medium fertility variant).	United Nations Statistics Division, New York, ...
6753	722	SIDS	2022	Life expectancy at birth for both sexes (years)	72.5	Projected estimate (medium fertility variant).	United Nations Population Division, New York, ...
6754	722	SIDS	2022	Life expectancy at birth for males (years)	69.6	Projected estimate (medium fertility variant).	United Nations Population Division, New York, ...
6755	722	SIDS	2022	Life expectancy at birth for females (years)	75.5	Projected estimate (medium fertility variant).	United Nations Population Division, New York, ...

6756 rows × 7 columns

In [2]:
```
#Relacion entre Mortalidad infantil y esperanza de vida
df2 = df[df['Year'] == 2020]
df2 = df2[df2['Series'].isin(['Infant mortality for both sexes (per 1,000 live births)',
df2 = df2.astype({'Value' : 'float64', 'Series' : 'object'})
pt = pd.pivot_table(df2, values = 'Value', index = ['Year', 'Unnamed: 1'], columns = ['S
pt2 = pt.reset_index()
import seaborn as sns
sns.regplot(x = 'Infant mortality for both sexes (per 1,000 live births)', y = 'Life exp
```

Out[2]:
```
<AxesSubplot:xlabel='Infant mortality for both sexes (per 1,000 live births)', ylabel='L
ife expectancy at birth for both sexes (years)'>
```



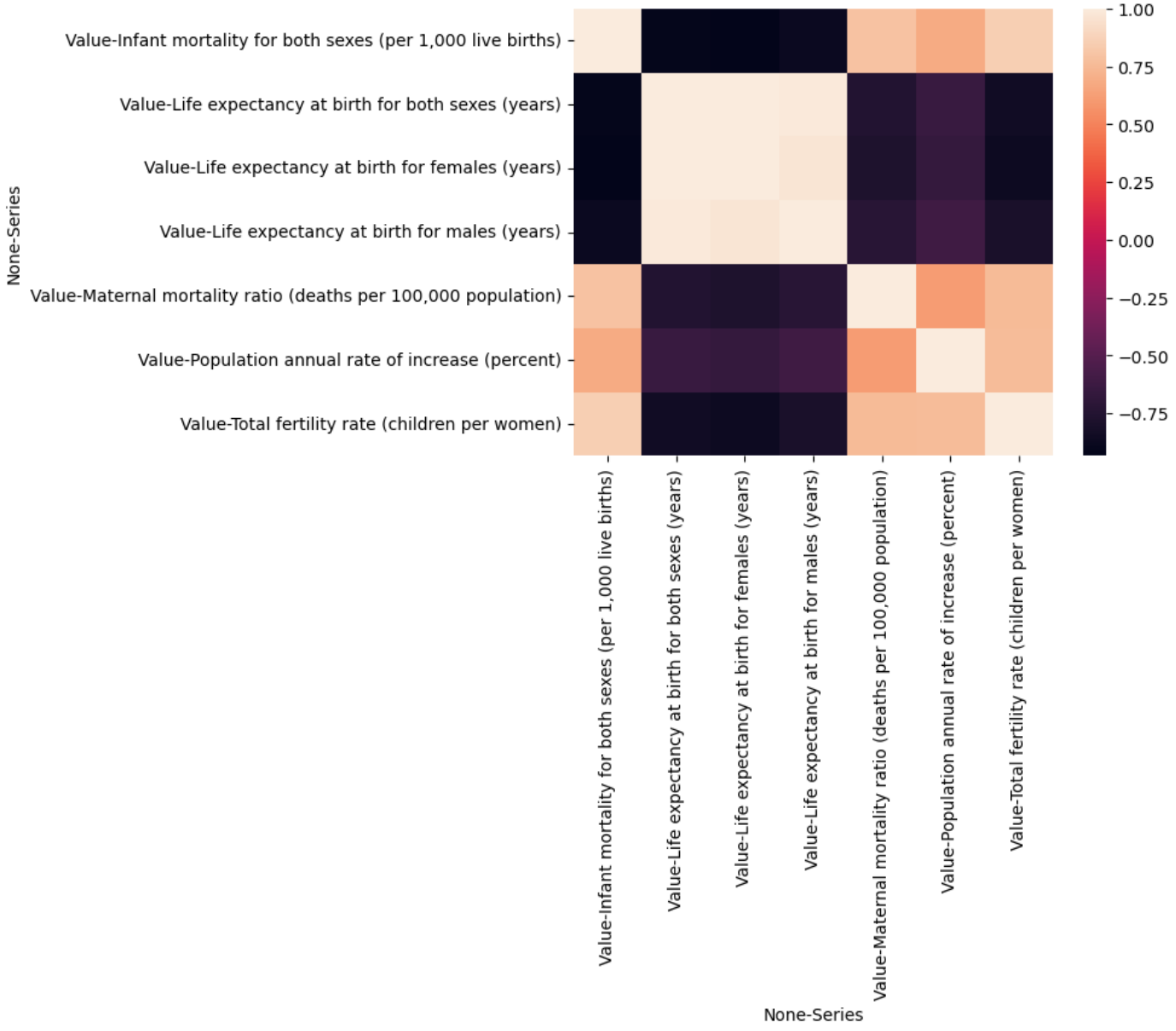
In [ ]:
```
#Podemos determinar que tenemos una concentracion significativa en donde vemos la relaci
#esperanza de vida por encima de los 70 años con una mortalidad infantil por debajo de l
```

In [37]:
```
#Relacion entre Mortalidad infantil y esperanza de vida
import numpy as np
df3 = df[df['Year'] == 2020]
df3['Value'] = df3['Value'].str.replace(',','.')
#df3 = df3['Value'].astype(float)
table = pd.pivot_table(df3, index = ['Unnamed: 1'], columns = ['Series'], values = ['Val
table1 = table.reset_index()
table1.fillna(0)
sns.heatmap(table1.corr())
```

```
C:\Users\Lenovo\AppData\Local\Temp\ipykernel_3988\2365539681.py:4: SettingWithCopyWarnin
g:
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_
guide/indexing.html#returning-a-view-versus-a-copy
  df3['Value'] = df3['Value'].str.replace(',','.')
```

Out[37]:
```
<AxesSubplot:xlabel='None-Series', ylabel='None-Series'>
```



In [ ]:
```
#Podemos obersar que estan mayormente correlacionados el Population annual rate of incre
#asi como tambien el infant mortality for both sexes
```