In [32]:
```
import pandas as pd
```

In [33]:
```
DataFrame = pd.read_csv("C:/Users/Luffy/Downloads/Data.csv")
```

In [34]:
```
DataFrame
```

Out[34]:

	Country Name	1960	1961	1962	1963	1964	1965	1966	1967	
0	Aruba	54208	55434	56234	56699	57029	57357	57702	58044	
1	Afghanistan	8996967	9169406	9351442	9543200	9744772	9956318	10174840	10399936	1
2	Angola	5454938	5531451	5608499	5679409	5734995	5770573	5781305	5774440	
3	Albania	1608800	1659800	1711319	1762621	1814135	1864791	1914573	1965598	
4	Andorra	13410	14378	15379	16407	17466	18542	19646	20760	
...	...	...	...	...	...	...	...	...	...	...
209	Kosovo	947000	966000	994000	1022000	1050000	1078000	1106000	1135000	
210	Yemen, Rep.	5315351	5393034	5473671	5556767	5641598	5727745	5816241	5907873	
211	South Africa	17099836	17524533	17965733	18423157	18896303	19384838	19888259	20406863	2
212	Zambia	3070780	3164330	3260645	3360099	3463211	3570466	3681953	3797877	
213	Zimbabwe	3776679	3905038	4039209	4178726	4322854	4471178	4623340	4779825	

214 rows × 62 columns

In [35]:
```
DataFrame["Country Name"]
```

Out[35]:
```
0            Aruba
1      Afghanistan
2           Angola
3          Albania
4          Andorra
          ...
209         Kosovo
210    Yemen, Rep.
211   South Africa
212         Zambia
213       Zimbabwe
Name: Country Name, Length: 214, dtype: object
```

In [36]:
```
UserInputYear=input("Enter the Year to find Countries with Min and Max Population : ");
DataFrame[UserInputYear]
```

```
Enter the Year to find Countries with Min and Max Population : 1965
0        57357
```

Out[36]:
```
1       9956318
2       5770573
3       1864791
4         18542
         ...
209     1078000
210     5727745
211    19384838
212     3570466
213     4471178
Name: 1965, Length: 214, dtype: int64
```

In [37]:
```
DataFrame["Country Name"].loc[DataFrame[UserInputYear].idxmin()]
```

Out[37]:
```
'Sint Maarten (Dutch part)'
```

In [38]:
```
DataFrame["Country Name"].loc[DataFrame[UserInputYear].idxmax()]
```

Out[38]:
```
'Middle income'
```

In [39]:
```
max((DataFrame["2020"] - DataFrame["1960"])/DataFrame["1960"])*100
```

Out[39]:
```
10601.92713461809
```

In [40]:
```
DataFrame["Growth%"] = ((DataFrame["2020"] - DataFrame["1960"])/DataFrame["1960"])*100
```

In [85]:
```
DataFrame
```

Out[85]:

1960	1961	1962	1963	1964	1965	1966	1967	1968	...	2
54208	55434	56234	56699	57029	57357	57702	58044	58377	...	1025
8996967	9169406	9351442	9543200	9744772	9956318	10174840	10399936	10637064	...	311613
5454938	5531451	5608499	5679409	5734995	5770573	5781305	5774440	5771973	...	251079
1608800	1659800	1711319	1762621	1814135	1864791	1914573	1965598	2022272	...	29004
13410	14378	15379	16407	17466	18542	19646	20760	21886	...	824
...	...	...	...	...	...	...	...	...	...	
947000	966000	994000	1022000	1050000	1078000	1106000	1135000	1163000	...	18071
5315351	5393034	5473671	5556767	5641598	5727745	5816241	5907873	6001858	...	244731
17099836	17524533	17965733	18423157	18896303	19384838	19888259	20406863	20942147	...	528326
3070780	3164330	3260645	3360099	3463211	3570466	3681953	3797877	3918872	...	144651
3776679	3905038	4039209	4178726	4322854	4471178	4623340	4779825	4941901	...	131151

mns

In [41]:
```
DataFrame["Country Name"].loc[DataFrame["Growth%"].idxmin()]
```

Out[41]:
```
'Bulgaria'
```

In [42]:
```
DataFrame["Country Name"].loc[DataFrame["Growth%"].idxmax()]
```

Out[42]:
```
'United Arab Emirates'
```

In [43]:
```
DataFrame.loc[DataFrame["Growth%"].idxmax()]
```

Out[43]:
```
Country Name    United Arab Emirates
1960                           92417
1961                          100801
1962                          112112
1963                          125130
                             ...
2017                        9487206.0
2018                        9630966.0
2019                        9770526.0
2020                        9890400.0
Growth%                   10601.927135
Name: 5, Length: 63, dtype: object
```

In [44]:
```
UserInputStartYear = input("Enter Start year : ")
UserInputEndYear = input("Enter End Year : ")
DataFrame["Country Name"].loc[(((DataFrame[UserInputEndYear]-DataFrame[UserInputStartYe
```

Out[44]:
```
Enter Start year : 1960
Enter End Year : 1968
'St. Kitts and Nevis'
```

In [45]:
```
UserInputCountryName = input("Enter the country name : ")
UserInputFutureYear = input("Enter the future year to guess population count : ")
print("Taking 10 years of data to estimate average growth : ")
ChosenCountry = DataFrame.loc[(DataFrame["Country Name"] == UserInputCountryName)]
ChosenCountry
```

```
Enter the country name : St. Kitts and Nevis
Enter the future year to guess population count : 2023
Taking 10 years of data to estimate average growth :
```

Out[45]:

	Country Name	1960	1961	1962	1963	1964	1965	1966	1967	1968	...	2012	2013	
103	St. Kitts and Nevis	51199	51196	50961	50529	49928	49209	48351	47388	46399	...	49881.0	50328.0	

1 rows × 63 columns

In [46]:
```
AvgGrowthPerYear = (((ChosenCountry["2020"]-ChosenCountry["2010"])/ChosenCountry["2010"]
```

In [47]:
```
AvgGrowthPerYear
```

Out[47]:
```
103    0.853074
dtype: float64
```

In [48]:
```
Sum1 = ChosenCountry["2020"];

Sum2=AvgGrowthPerYear/100

Sum2*Sum1
```

Out[48]:
```
103    453.767016
dtype: float64
```

In [ ]:

In [ ]: