```
Q1
      Rank CCA3 ... Growth Rate World Population Percentage
0
       36
           AFG
                          1.0257
                 ...
       138
                           0.9957
1
            ALB
                                                          0.04
                 ...
2
                          1.0164
       34
           DZA
                                                          0.56
                 ...
3
       213
           ASM
                          0.9831
                                                          0.00
                 . . .
                          1.0100
4
            AND
                                                          0.00
       203
                 ...
5
       42
            AGO
                          1.0315
                                                          0.45
                 ...
                                                          0.00
6
       224
                          1.0066
           AIA
                 . . .
7
       201
           ATG
                          1.0058
                                                          0.00
                 ...
                          1.0052
8
       33
            ARG
                                                          0.57
                 ...
9
       140
            ARM
                          0.9962
                                                          0.03
                 ...
       198
10
           ABW
                          0.9991
                                                          0.00
                 ...
11
       55
           AUS
                          1.0099
                                                          0.33
                 ...
       99
           AUT
                          1.0020
                                                          0.11
12
                 ...
13
       91
            AZE
                          1.0044
                                                          0.13
                 . . .
14
       176
           BHS
                          1.0051
                                                          0.01
                 ...
15
       154
            BHR
                          1.0061
                                                          0.02
                 ...
        8
            BGD
                          1.0108
16
                                                          2.15
                 ...
17
       186
            BRB
                          1.0015
                                                          0.00
                 ...
18
       96
           BLR
                          0.9955
                                                          0.12
                 ...
                          1.0038
       81
19
            BEL
                                                          0.15
                 ...
20
       177
           BLZ
                          1.0131
                                                          0.01
                 ...
21
       77
            BEN
                 ...
                          1.0274
                                                          0.17
22
       206
           BMU
                          1.0000
                                                          0.00
                 . . .
23
       165
           BTN
                          1.0064
                                                          0.01
                 ...
24
       80
           BOL
                          1.0120
                                                          0.15
                 ...
25
       137
                          0.9886
            BIH
                                                          0.04
                 ...
                          1.0162
26
       144
            BWA
                                                          0.03
                 ...
27
            BRA
                          1.0046
        - 7
                                                          2.70
                 . . .
28
       221
            VGB
                          1.0059
                                                          0.00
                 ...
       175
29
           BRN
                          1.0081
                 ...
                                                          0.01
30
                          0.9849
       108
           BGR
                                                          0.09
                 . . .
HIghest 5
                      Country 2020 Population 1970 Population Increase%
                      Djibouti
                                        1090156
                                                           144379
                                                                       655.07
215
     Turks and Caicos Islands
                                          44276
                                                              5665
                                                                       681.57
                                          305587
                                                             35383
130
                                                                       763.65
                       Mayotte
                                        2760385
167
                         Qatar
                                                           118007
                                                                      2239.17
219
         United Arab Emirates
                                        9287289
                                                           298084
                                                                      3015.66
Lowest 5
          Country 2020 Population 1970 Population Increase%
                                                          -62.55
150
             Niue
                               1942
                                                5185
                               4500
       Montserrat
                                                          -60.53
137
                                                11402
226
     Vatican City
                                520
                                                  752
                                                          -30.85
                            3765912
                                                          -21.55
                                              4800426
73
          Georgia
                                              2397414
111
           Latvia
                            1897052
                                                          -20.87
Highest 5
                      Country 2020 Population 2010 Population Increase%
                       Kuwait
                                4360444
                                                          2943356
                                                                       48.15
215
     Turks and Caicos Islands
                                          44276
                                                            29726
                                                                       48.95
                                        4543399
                                                          2881914
                                                                       57.65
155
                         Oman
                       Jordan
                                       10928721
                                                          6931258
104
                                                                       57.67
167
                                        2760385
                                                          1713504
                        Qatar
                                                                       61.10
Lowest 5
                    Country 2020 Population 2010 Population Increase%
                              43413
126
           Marshall Islands
                                                        53416
                                                                  -18.73
                                      3084847
                    Moldova
                                                                   -16.13
133
                                                        3678186
             American Samoa
                                        46189
                                                         54849
                                                                   -15.79
                                     3318407
                                                        3811088
25
    Bosnia and Herzegovina
                                                                    -12.93
               Vatican City
                                          520
                                                          596
                                                                   -12.75
Not totally the same. Just Turks and Caicos Islands, Qatar and Vatican City appea
r twice
```

```
Q4
     Rank CCA3
                ... Growth Rate World Population Percentage
41
            CHN
                          1.0000
        1
                                                          17.88
                . . .
                           1.0068
        2
            IND
                                                          17.77
92
                . . .
221
        3
            USA
                           1.0038
                                                           4.24
                 ...
93
                                                           3.45
         4
            IDN
                           1.0064
                 ....
156
        5
           PAK
                           1.0191
                                                           2.96
                . . .
[5 rows x 17 columns]
     Rank CCA3 ... Growth Rate World Population Percentage
137
      230
           MSR
                           0.9939
                . . .
      231
                           1.0043
                                                            0.0
64
           FLK
                . . .
      232
150
            NIU
                ...
                           0.9985
                                                            0.0
      233
209
                           1.0119
                                                            0.0
            TKL
                 ...
226
      234
           VAT
                           0.9980
                                                            0.0
                . . .
Q5
1970
Highest
                ... Growth Rate World Population Percentage
     Rank CCA3
                           1.0000
41
            CHN
                ...
                                                          17.88
        1
92
        2
            IND
                           1.0068
                                                          17.77
                 ...
221
        3
                           1.0038
                                                           4.24
            USA
                . . .
171
        9
            RUS
                           0.9973
                                                           1.81
                 . . .
93
           IDN
                           1.0064
         4
                                                           3.45
[5 rows x 17 columns]
Lowest
                ... Growth Rate World Population Percentage
     Rank CCA3
           NIU
                           0.9985
150
      232
                . . . .
                           1.0098
173
      228
           BLM
                                                            0.0
                ...
      231
64
           FLK
                . . .
                           1.0043
                                                            0.0
209
      233
           TKL
                           1.0119
                                                            0.0
                 . . .
                           0.9980
226
      234
           VAT
                                                            0.0
[5 rows x 17 columns]
2022
Highest
                ... Growth Rate World Population Percentage
     Rank CCA3
                           1.0000
41
            CHN
                                                          17.88
        1
                . . .
92
        2
            IND
                           1.0068
                                                          17.77
                ....
221
        3
                           1.0038
                                                           4.24
            USA
                 . . .
93
        4
            IDN
                           1.0064
                                                           3.45
                 . . .
156
                                                           2.96
        5
           PAK
                           1.0191
[5 rows x 17 columns]
Lowest
     Rank CCA3
                 ... Growth Rate World Population Percentage
137
      230
           MSR
                           0.9939
                . . . .
                           1.0043
64
      231
           FLK
                                                            0.0
                ...
150
      232
            NIU
                . . .
                           0.9985
                                                            0.0
209
      233
                           1.0119
                                                            0.0
            TKL
                 ...
      234
                           0.9980
                                                            0.0
226
           VAT
                ...
[5 rows x 17 columns]
Highest 5 remain: CHN, IND, USA, IDN
Lowest 5 remain: FLK, VAT, NIU, TKL
```

```
The mean of 2020 population is 33501070.952991452
The Q1,Q2,Q3 of 2020 population are
0.25
       415284.5
0.50
       5493074.5
0.75
      21447979.5
Name: 2020 Population, dtype: float64
Three countries around the mean are: Yemen, Malaysia and Ghana
Three countries around the Q1 are: Belize, Bahamas, Buadeloupe
Three countries around the M are: Norway, Lebanon, finland
Three countries caround the Q3 are: Sri Lanka, Syria and Mali
The Q1,Q3 of 2020 population are 0.25 415284.5
0.25
      21447979.5
0.75
Name: 2020 Population, dtype: float64
The Q1,Q3 of 2010 population are
0.25
       393149.0
      19159567.5
0.75
Name: 2010 Population, dtype: float64
The Q1,Q3 of 2000 population are
0.25
        327242.0
      15762301.0
0.75
Name: 2000 Population, dtype: float64
The Q1,Q3 of 1990 population are 0.25 264115.75
0.75
      11869231.00
Name: 1990 Population, dtype: float64
The Q1,Q3 of 1980 population are
0.25
      229614.25
      9826053.75
0.75
Name: 1980 Population, dtype: float64
Picture in pdf file
```

They look very similar

The rank	of density is			
		Density	(per km2)	Rank
78	Greenland	-71151715155	0.0261	1.0
64	Falkland Islands		0.3105	2.0
230	Western Sahara		2.1654	3.0
135	Mongolia		2.1727	4.0
141	Namibia		3.1092	5.0
11	Australia		3.4032	6.0
91	Iceland		3.6204	7.0
69	French Guiana		3.6459	8.0
86	Guyana		3.7621	9.0
199	Suriname		3.7727	10.0
35	Canada		3.8513	11.0
115	Libya		3.8717	12.0
26	Botswana		4.5194	13.0
128	Mauritania		4.5951	14.0
105	Kazakhstan		7.1188	15.0
150	Niue		7.4385	16.0
171	Russia		8.4636	17.0
71	Gabon		8.9252	18.0
38	Central African Republic		8.9555	19.0
24	Bolivia		11.1272	20.0
214	Turkmenistan		13.1751	21.0
39	Chad		13.8032	22.0
155	Oman		14.7861	23.0
145	New Caledonia		15.6097	24.0
8	Argentina		16.3683	25.0
67	Finland		16.3722	26.0
161	Paraguay		16.6705	27.0
154	Norway		16.7828	28.0
182	Saudi Arabia		16.9368	29.0
168	Republic of the Congo		17.4574	30.0
195	South Sudan		17.6091	31.0
20	Belize		17.6466	32.0
124	Mali		18.2178	33.0
2	Algeria		18.8531	34.0
223	Uruguay		18.9069	35.0
146	New Zealand		19.1716	36.0
23	Bhutan		20.3796	37.0
148	Niger		20.6851	38.0
160	Papua New Guinea		21.9139	39.0
200	Sweden		23.4276	40.0
177	Saint Pierre and Miguelon		24. 2231	41.0

```
[234 rows x 4 columns]
Top 5 largest positive change
                  Country 1970 Population ... 2020 Rank Change
219 United Arab Emirates
                                    298084 ...
                                                     138.0
                                                              70.0
                   Jordan
                                   1557374
                                                     150.0
                                                              49.0
104
                                            ...
                    Qatar
                                                              40.0
167
                                    118007
                                            . . .
                                                      93.0
182
             Saudi Arabia
                                   6106191
                                                     194.0
                                                              34.0
                                            ...
                                   6029700 ...
                                                     192.0
                                                              33.0
                   Angola
[5 rows x 6 columns]
Top 5 largest negative change
    Country 1970 Population 2020 Population 1970 Rank 2020 Rank Change
     Georgia
                                       3765912
                      4800426
                                                    151.0
                                                               104.0
                                                                       -47.0
   Bulgaria
                      8582950
                                       6979175
                                                    174.0
                                                               129.0
                                                                       -45.0
30
90
                     10315366
                                       9750573
                                                    184.0
                                                               142.0
                                                                       -42.0
     Hungary
                                                                       -39.0
                                                               105.0
46
     Croatia
                      4492638
                                       4096868
                                                    144.0
                                                                       -38.0
18
     Belarus
                      9170786
                                       9633740
                                                    178.0
                                                               140.0
Digit 1 has 30.34 %
Digit 2 has 14.96 %
Digit 3 has 14.53 %
Digit 4 has 9.4 %
Digit 5 has 11.11 %
Digit 6 has 7.69 %
Digit 7 has 3.42 %
Digit 8 has 4.27 %
Digit 9 has 4.27 %
All answer round 2 decimal
The rank of 1970
                          Country ... 1970 Rank
Afghanistan ... 186.0
0
1
                               Albania ...
                                                 111.0
2
                               Algeria ...
                                                 198.0
3
                       American Samoa ...
Andorra ...
                                                  26.0
4 5
                                                  20.0
                                Angola ...
                                                 159.0
                              Anguilla ...
6
                                                  11.0
7
                  Antigua and Barbuda ...
                                                  40.0
8
                                                 207.0
                            Argentina ...
9
                               Armenia ...
                                                 117.0
                                Aruba ...
10
                                                  38.0
                                                 194.0
                             Australia ...
11
12
                              Austria ...
                                                 170.0
13
                            Azerbaijan ...
                                                 155.0
                               Bahamas ...
Bahrain ...
14
                                                  61.0
15
                                                  63.0
                            Bangladesh ...
16
                                                 226.0
                              Barbados ...
17
                                                  64.0
                              Belarus ...
Belgium ...
18
                                                 178.0
19
                                                 179.0
20
                               Belize ...
                                                  54.0
21
                                Benin ...
                                                 128.0
22
                               Bermuda ...
                                                  32.0
                               Bhutan ...
23
                                                  69.0
24
                               Bolivia ...
                                                 146.0
               Bosnia and Herzegovina ...
25
                                                 136.0
                             Botswana ...
Brazil ...
26
                                                  83.0
27
                                                 228.0
28
               British Virgin Islands ...
                                                  14.0
                             Brunei ...
Bulgaria ...
29
                                                  56.0
30
                                                 174.0
                         Burkina Faso ...
31
                                                 158.0
32
                               Burundi ...
                                                 131.0
                              Cambodia ...
33
                                                 167.0
                                                 165.0
34
                             Cameroon
                                       ...
35
                                Canada ...
                                                 205.0
```