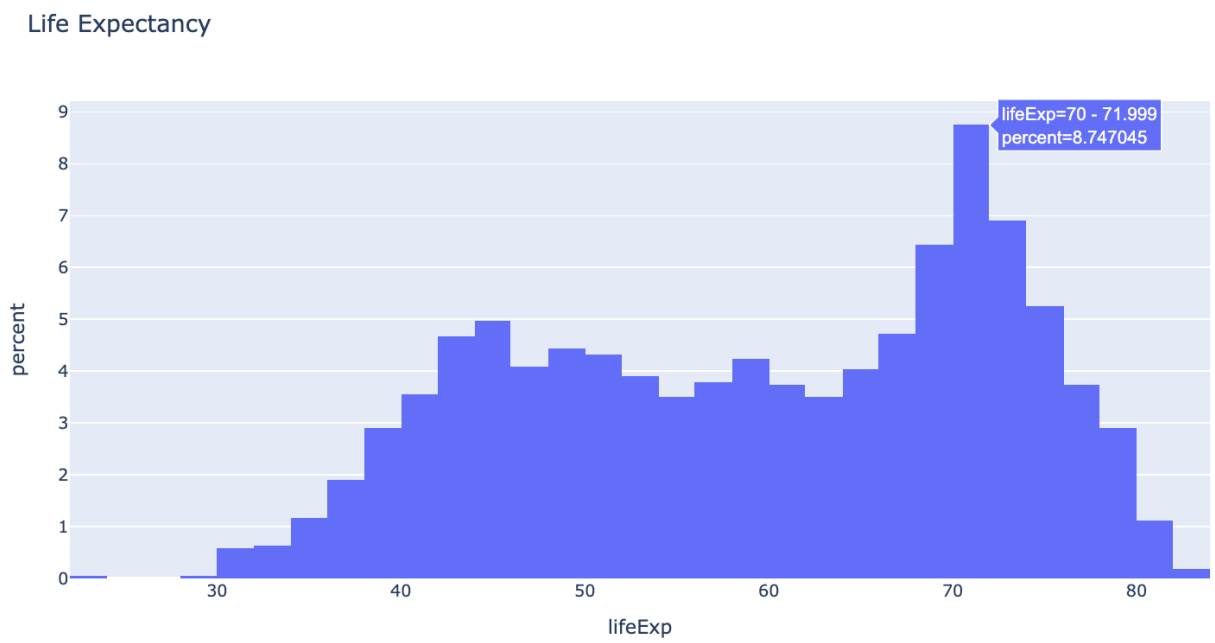
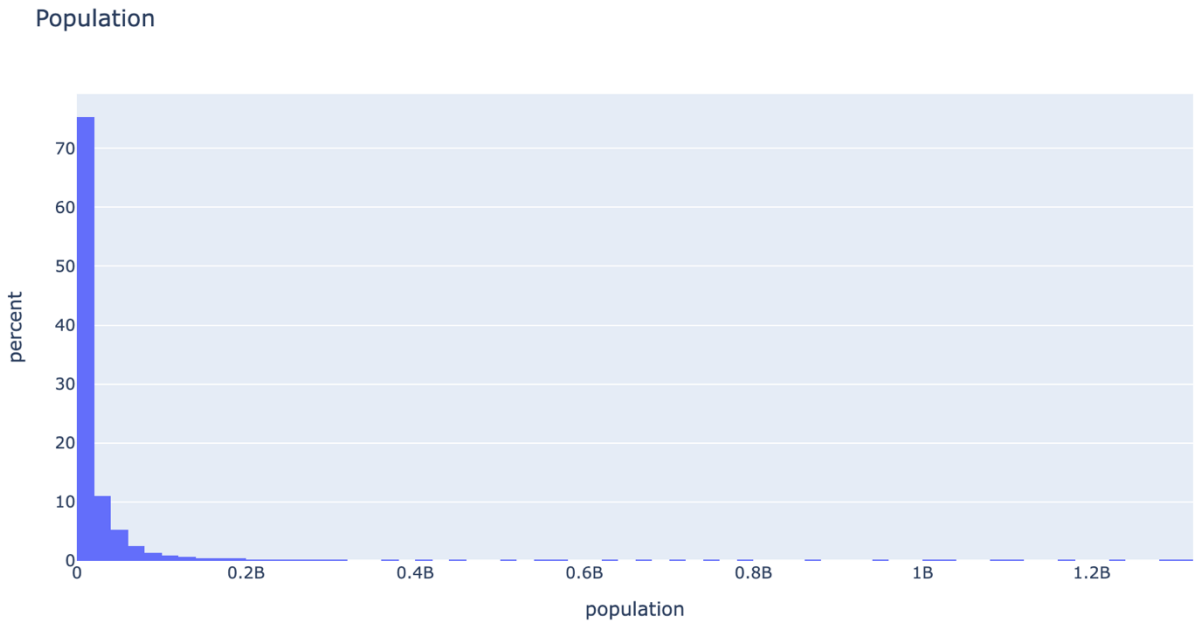
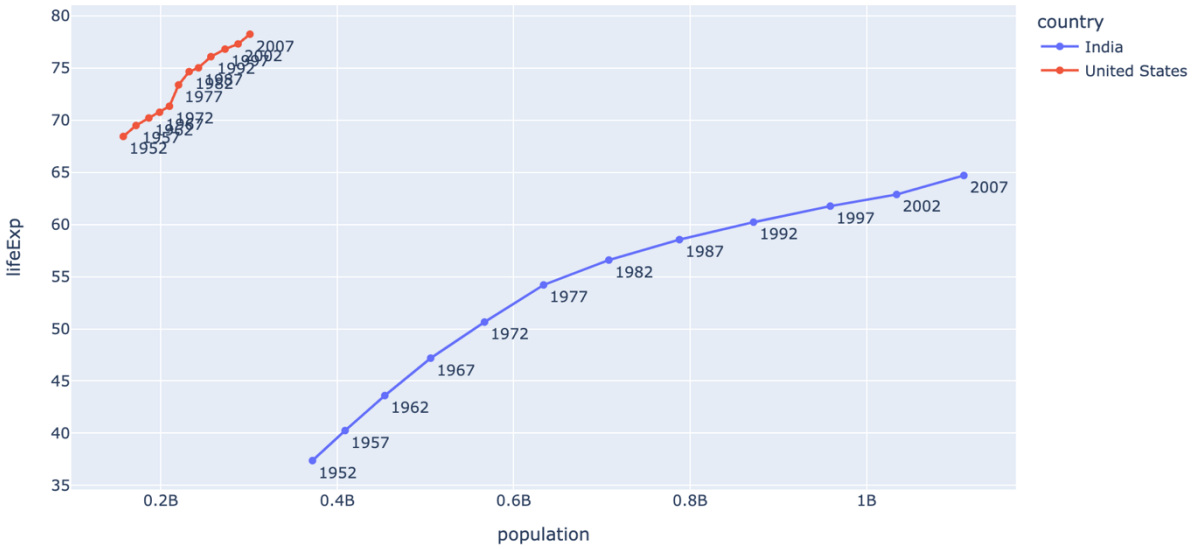
DAV Homework 4



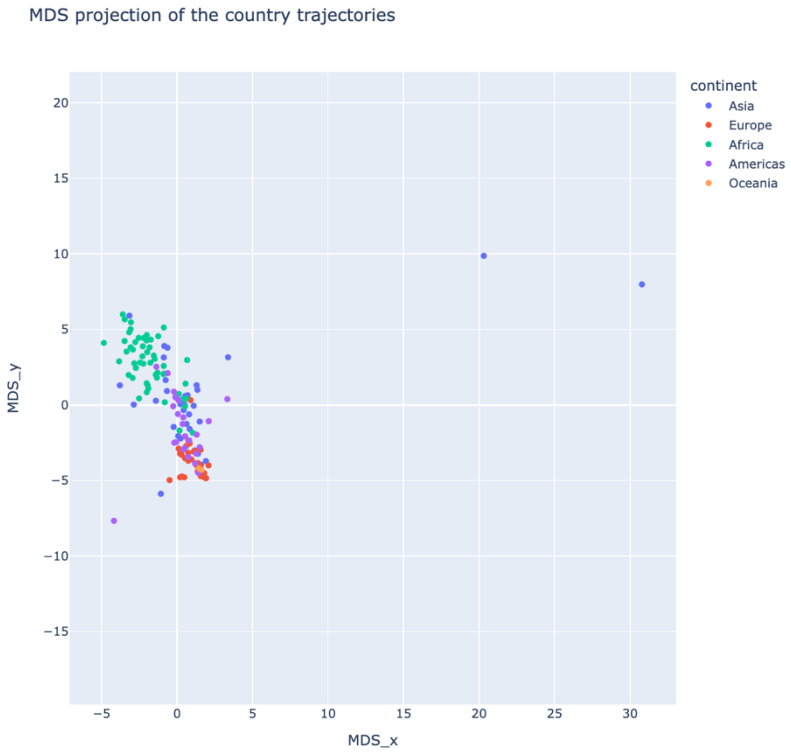
Inference: This implies 8.75 % of the population will live for 70-71.99 years on an average

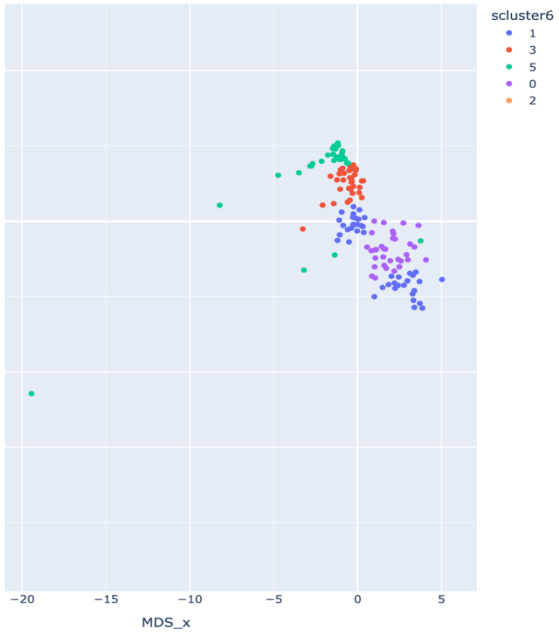


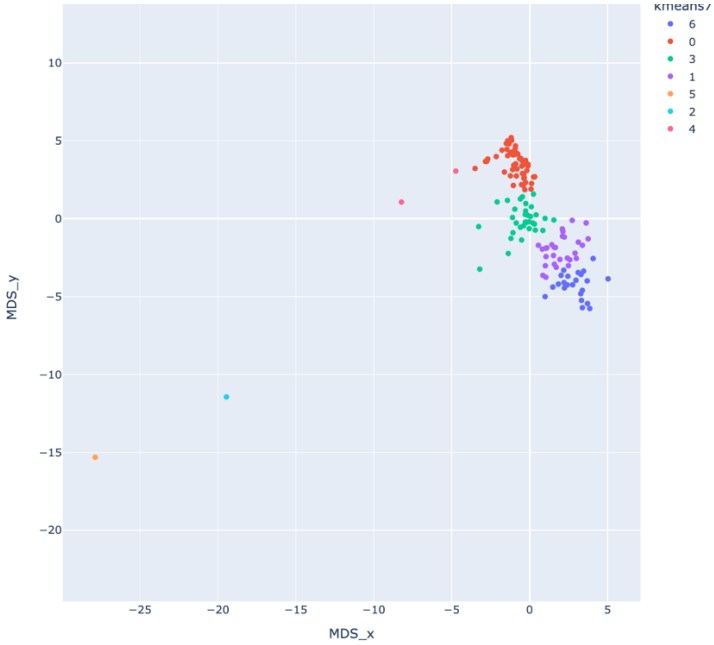
Inference: Most of the countries were having populations of significantly less than a 0.2Billion.



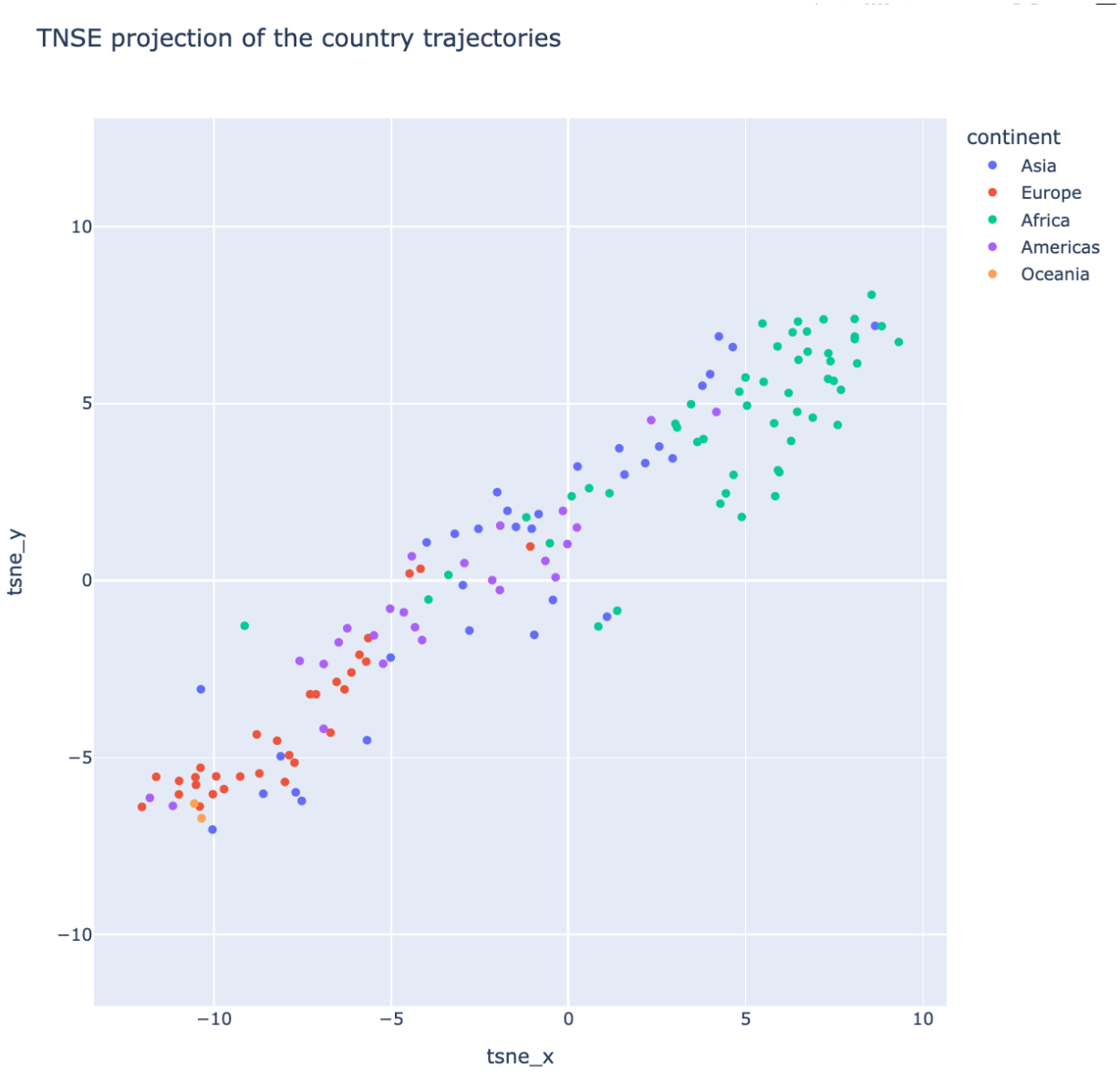
Inference: Considering the population and life expectancy of the United States and India, we see that from 1952 to 2007, the population of India rose from 372Million to 1.1 Billion (~295times), and life expectancy of 37.37 to 64.69 while for the USA, the population grew from 157Million 301.13 Million(~2 times) and life expectancy rose from 68.44 to 78.24



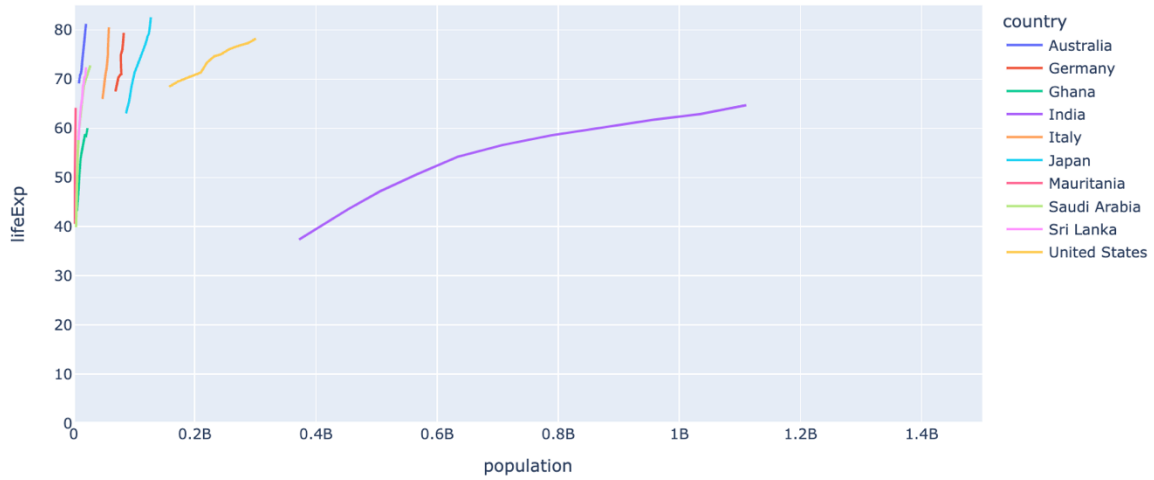




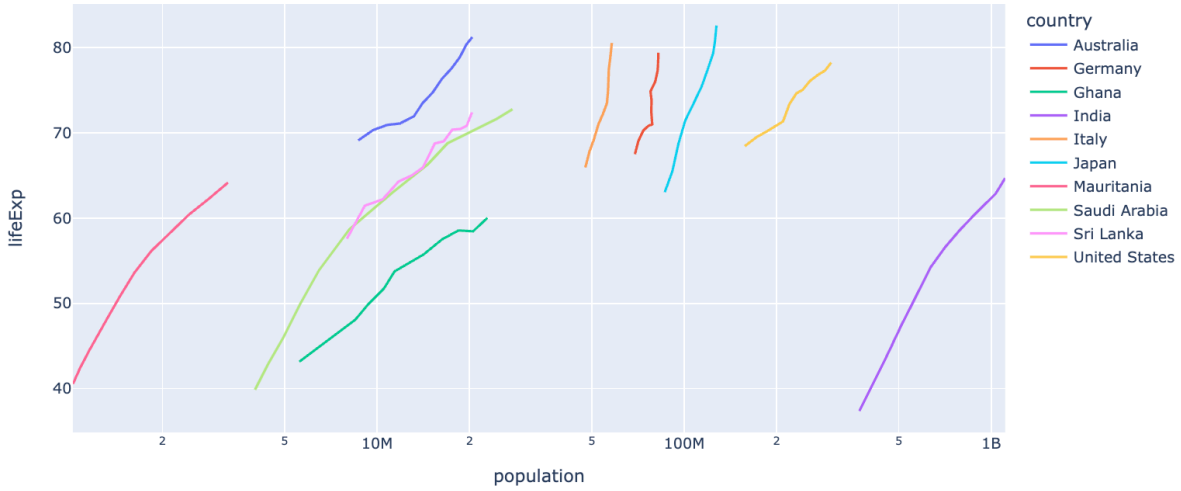
In these graphs we see, that most of the African countries have a similar population and life expectancy, however they seem to very different from the European countries. Almost all the countries in Oceania are similar to European countries in terms of the population and life expectancy as they can be seen very close to one another. We do see India, China, and the United states as outliers which could be due to their high populations.


TNSE projection of the country trajectories
continent
Asia
Europe
Africa
Americas
Oceania
tsne_y
tsne_x
10
5
0
−5
−10
−10
−5
0
5
10

selected country trajctories from different portions of the MDS and TSNE charts



country trajectories using a logaritmic x axis



For India, we see a very high increase in terms of population and Life expectancy as compared to the other selected countries which are almost similar. We see Saudi Arabia and Sri Lanka are very similar.

Cluster Trajectories. Each line represents the population and life expectancy by year