Estimating Countries with Similar Maternal Mortality Rate

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Problem:

In day today life the one of the most important problem to be solved is to bring the maternal mortality rate to 0% by improving hospital facilities, by practising good food habits, improving healthy habits and so on.
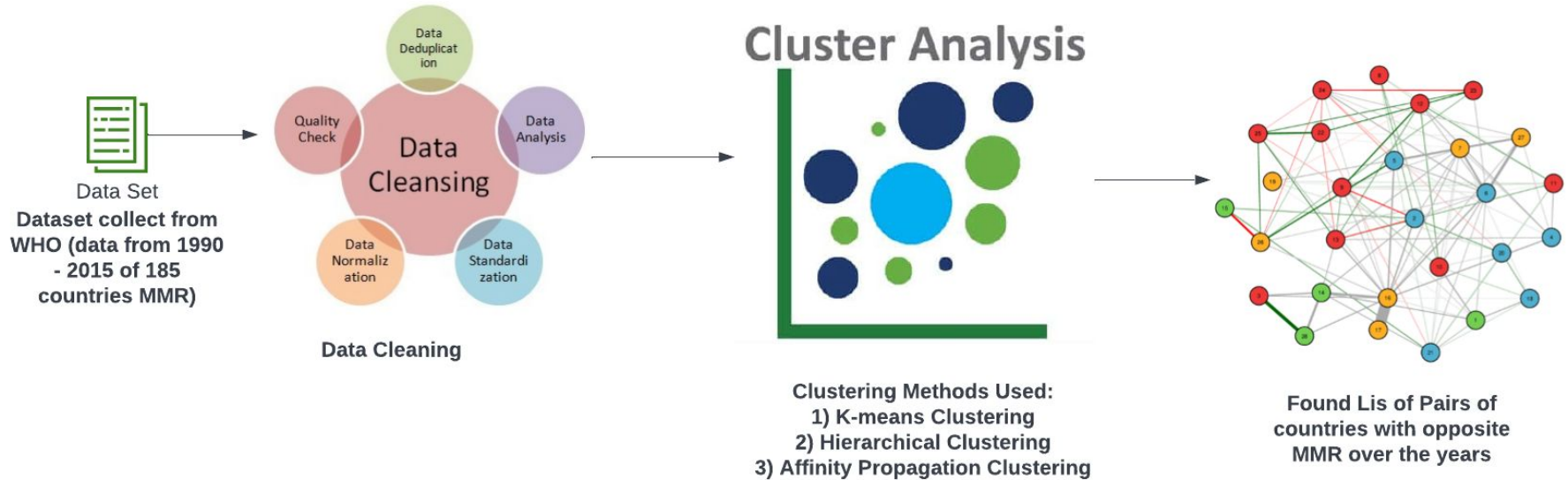
Solution Overview:

Collected dataset from WHO from 1990 - 2015 of 185 countries maternal mortality rate and analysed them using Unsupervised Machine Learning - Cluster Analysis.

Clusters were formed from the list of countries based on the MMR (Maternal Mortality Rate)

From this each cluster I found pairs of countries that has opposite maternal mortality rate i.e., many pair of countries in which of that has high maternal mortality rate and other has less.

Process of the Project:

Data Set
Dataset collect from WHO (data from 1990 - 2015 of 185 countries MMR)

Data Cleaning

Quality Check · Data Deduplication · Data Analysis · Data Normalization · Data Standardization · **Data Cleansing**

Cluster Analysis

Clustering Methods Used:
1) K-means Clustering
2) Hierarchical Clustering
3) Affinity Propagation Clustering

Found Lis of Pairs of countries with opposite MMR over the years

Tech Stack

- Pandas

- Numpy

- Sklearn Libraries

- Matplotlib

- Unsupervised ML (Cluster Analysis)

- TSNE - py