A statistical analysis on factors that contributed/slowed down the spread of COVID-19

Project for the exam: Machine learning, statistical learning, deep learning and artificial intelligence - Unsupervised Learning

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Overview

FINAL GOAL: Survey the statistical correlations between the COVID-19 cases/deaths and a selected set of attributes for different clusters via the principal component analysis

Cluster features

Provices (IT)

- Unemployment '19
- Private Transport '12
- Air Quality '19
- Public Transport '12
- Density '19
- Mean income '19

Regions (IT)

- Mortality
- Pop. for GP
- Mean Income '19
- Number of Visits for Pop. '17
- Public Transport
- Density '19
- Mean income '19
- Tests
- LEA '17
- Number of visit '17
- Public structures

Countries

- PM₂₅ '16
- Traffic Mortality '16
- Pollution Mortality '16
- GDP pro-capita '19
- Health expenditure '17
- UHC '17

Datasets features

TEMPORAL INTERVAL: Provinces up to 24/08/2020; Regions up to 24/08/2020; Countries up to 27/08/2020

SOURCES: Protezione Civile, Istituto Italiano di Statistica, Ministro delle Finanze, Ministro della Salute, World Health Organization and World Bank