

APRIL 17, 2021

**GTU Department of Computer Engineering  
MATH118 - Spring 2021  
Homework 1 Report**

**Akif Kartal  
171044098**

# 1 Problem Definition

The problem is to make some operation on covid19 data by using python programming language.

## 2 System Requirements

In order to run program you need to install followings;

- ▶ Python
- ▶ openpyxl library for python.
- ▶ any other library if needed.
- ▶ **owid-covid-data.xlsx** file in same directory.

After running wait a few minute program to finish, then **output.csv** file will be created.

## 3 Question 19

About this question my observations are following;

**Note:** These observations was made with April 16 data.

1. First observation is of course number of cases will affect number of death directly.
2. If the median age is low in a country, then deaths is low.
3. Economic performance will affect number of vaccinations are administered in each country.
4. Death rates due to heart disease will **not** affect total deaths.
5. Handwashing facilities will **not** affect total cases.
  - ▶ For example Serbia has 97,719 handwashing facilities and Senegal has 20,859 but even tough serbia has two times more population than senegal it has 16 times more cases than senegal.
6. Hospital beds per thousand people will **not** affect total deaths.
  - ▶ For example Japan has 13,05 hospital beds per thousand people and Banglades has 0,8 but total deaths number are almost same. Japan has 9506 total death and banglades has 10081.
7. Number of smokers will affect both total cases and deaths.
  - ▶ For example Serbia has 37,7 female smokers and 40,2 male smoker and Oman has 0,5 female smokers and 15,6 male smoker even though their population is close serbia has 3 times more death and cases than oman.