

ASSIGNMENT 2 - MAS291

Part 1

Let $a < b$ be the largest digits in your student ID.

Visit the website <https://www.gapminder.org/data/> to download the data file for GDP/employee (US\$, inflation-adjusted). This file contains the GDP per each employee for all countries from 1991.

Rename the file in the format: **name_ID**. For instance, *NguyenVanA_QE17000*.

Your task is to perform descriptive statistics on this file to obtain useful information. It means that you are asked to do the following steps:

1. Create a new column named '**Average GDP**' to store the average GDP of each country in the last 10 years.
2. Use excel functions in Excel to perform descriptive statistics on the column '**Average GDP**':
 - Find the mean, standard deviation, min, max, range, quartiles, IQR and the whiskers of the boxplot.
 - Construct a histogram with b bins.
 - Construct a Pareto chart for the $a + b$ countries with the highest average GDP.
3. Use time-series to plot the **rate of growth** of GDP per employee in the last 20 years of the country whose position in the file is the last two digits of your student ID.