## **Instructions**

Answer the questions in full for the maximum points (10 points). Write your answer in a  $\underline{Python\ 3}$  source code file, which has the .py file extension and submit the file into the return-box in Moodle.

## Question(s)

Write a program that can be used to examine world population growth using the file for population projections (indicator\_total\_population\_with\_projections.txt).

- 1. Write a function that goes through all numeric values in the data file to ensure that they legal integers/floats. Decide how to handle missing data: Should you leave them empty, replace them with zeros, or with some special values?
- 2. Change absolut values into percentual changes and save them in a new data file.
- 3. Find the minimum and maximum percentual year-to-year changes. You can focus on those years for which there exists information about practically all countries (1950->).

## **Deadline**

The deadline for the assignment is 12.12.2017.