

Case Study 1 (a warm up with available sources)

[SCImago](#) Journal Rank (SJR indicator) is a metric of the scientific impact of journals. This metric accounts for both the importance or prestige of the journals and the number of citations received by a journal where such citations come from.

SCImago has a website that maintains thorough information on journal and country rankings. Unlike other similar sites, it further offers some visualization tools for information visualization graphs on the structure of various sciences, in addition to real time and bubble chart maps built upon a range of indicators such as [Total Document, H Index, Citations, Citable Documents, Citations per Document and Countries and Self-Citations](#).

- In this case study, you are to use Scimago's database for creating useful visualizations (similar to the ones they produce, alongside analyzing the trends that these visualizations shall unfold. Start by reading csv data file that is available online [here](#).
- You need to get yourself familiar with [some terms and indices like H index, SJR, citations per document, self-citations, total documents, referencing documents, citations per document, and quartiles](#).
- [You will have to write a code that allows you to list and rank journals based on subject area, country, and associated indices \(including total number of citations\), by year.](#)
- [Moreover, you should be able to compare countries with each other, in a similar way when we said you need to compare journals with each other.](#)
- [You will have to be able to fetch some information about each journal \(this will serve as a basic for later requirements\), like its latest impact factor.](#)
- [Your code should devise a way to compare visually and provide conclusions, based on the previous requirements.](#)
- [Your code will have to compute all basic tallies, quartiles and quintiles, percentiles, draw all necessary visuals \(in addition to box, stripplot and violin plots\).](#)
- [Your code will have to be able to get the information about journals in each region \(Asia, Africa,...\) and compare the distributions of these data in a proper way to tell about existing differences.](#)

Notes:

- This is NOT a group assignment! Work individually!
- You might use whatever code (starter ones) but I will be discussing you with your work, so make you understand every bit in it or you will get a zero for that part, no matter what your answer is!
- If you have to upload any big files (whatever reason it is), then you can use free online sharing tools

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CIS 711 – Case Study 1

Deadline: December 10, 2020, midnight
