


SDG Africa Partnership

Workshop with Ellen and Charles, two scientists from Makerere University Kampala, Uganda, together with Clein and Rolf from HSRW 

2023-11-07

- Download and install of QGIS
- Download and install anaconda
- conda environment creation
- installation of libraries according to https://github.com/rolfbecker/EE_3.07_Geodata_WS2022/tree/main/gdms0020_Course_Preparation
- Correction of packages: jupyterlab pandas geopandas shapely fiona pyproj rasterio sqlalchemy psycopg2 ipython-sql bs4
- <https://cs231n.github.io/python-numpy-tutorial/> up to numpy

Extra material:

- pandas tutorial (comprehensive): https://github.com/ageron/handson-ml3/blob/main/tools_pandas.ipynb

2023-11-08

- * Finished the numpy tutorial from cs231. Skipped the image processing for now
- * Followed partially the hands-on-ml3 tutorial (tools_pandas.ipynb). Material covered:
- * import pandas and alias
- * Series: create from list, give index, give name, create from dictionary. slicing, alignment, plotting
- * Handle time with pd.date_range()
- * Creating a Dataframe: by dictionary.
- * selecting columns, accessing values, filtering, transposing. **skipped multi-indexing, stacking and unstacking,**
- * dataframe read: read_csv and read_excel. And dataframe write

Homework: explore the real data:

https://firebasestorage.googleapis.com/v0/b/fao-aquastat.appspot.com/o/Excel%2FAfrica-dams_eng.xlsx?alt=media&token=b621f090-60cf-46f1-8472-9003ce314066

2023-11-09

- * first notebook gnb0101_DWD_

To correct:

- 1) Explain what the grabfile function is doing with doc string
- 2) Show them what the problem of the file is by uploading in QGIS
- 3) Let them import the file by themselves, So they see the problem again
- 4) Notice that station ID is being read as integer. So correct that by a dtype dictionary
- 5) Update the administrative boundaries links

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