

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

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Last update: **2023/11/08 18:09**

