Python for UBS

Requirements

Computer hardware

Minimum requirements: 10 GB free hard drive space, 4 GB RAM
Recommended requirements: 15 GB free hard drive space, 8 GB RAM

Packages management - Anaconda

Training will be based on Anaconda packages distribution system.
https://www.anaconda.com/distribution/

Currently, the latest version available for Win 10 is 2019.10:
https://repo.anaconda.com/archive/Anaconda3-2019.10-Windows-x86_64.exe

After installing Anaconda the next step is to create new environment according to the following documentation using **`environment.yml`** contents given below.

Tutorial:
https://docs.conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html#creating-an-environment-from-an-environment-yml-file
(Section: *"Creating an environment from an environment.yml file"*)

In short, this can be done either through 'Anaconda Prompt' command line:

```
conda env create -f environment.yml
```

or using graphical user interface version of Anaconda (section **Environments**, button **Import**)

Contents of `environment.yml` file (for pasting into new `environment.yml` file):

```
name: isapython
channels:
  - https://nexus-tp.ubs.net/repository/public-conda/main
dependencies:
  - python=3.7
  - numpy
```

- pandas
- bokeh
- beautifulsoup4
- flask
- datashader
- matplotlib
- numba
- dask
- scikit-learn
- jupyterlab
- openpyxl
- pandas-profiling

Prework (with Jupyter)

To startup prework notebook, unpack provided **000-isapython_prework_2.zip** file and enter '000-isapython_prework' folder within 'Anaconda prompt' (available through 'Start menu' on Windows). After that, execute the following commands.

Changing Anaconda environment to the one we created above:
conda activate isapython

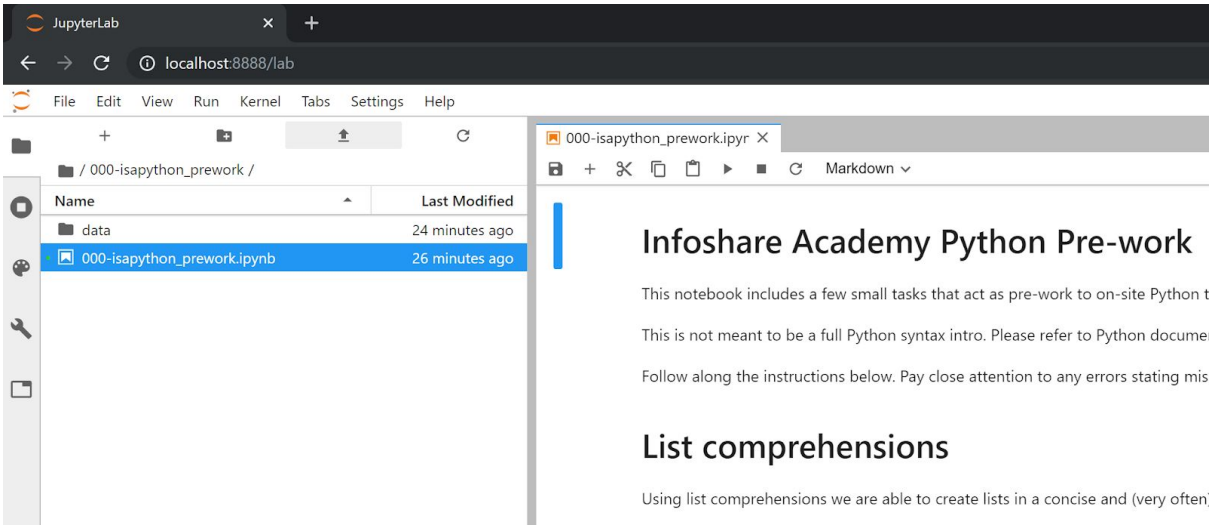
Starting up JupyterLab:
jupyter lab

The resulting output should include link that you can paste into the browser and open **000-isapython_prework.ipynb** file.

Link within command line:

```
Or copy and paste one of these URLs:
    http://localhost:8888/?token=c28c974e28cc1662327c3dbf6746da476fa5fd4c
 or http://127.0.0.1:8888/?token=c28c974e28cc1662327c3dbf6746da476fa5fd4c
```

Jupyter Lab after opening **000-isapython_prework.ipynb** file:



Follow the instructions within the document: execute code cells and enter missing code.

For more information on Jupyter Notebook document structure and description of different cell types, see official documentation: https://jupyter-notebook.readthedocs.io/en/stable/notebook.html#notebook-user-interface

Prework (without Jupyter)

In case you are not able to run included Jupyter Notebook, archive **`000-isapython_prework_2.zip`** includes **'html'** directory with Notebook already executed. Follow through by copying and pasting the code from cells and implementing missing parts. Seek for 'TODO' string within the document.