# Practice №1

Goal:

Install python. Set up the environment for work and learn how to work with the environment.

Installation of the main elements

1. Install python <https://www.python.org/downloads/>
2. Install miniconda <https://docs.anaconda.com/miniconda/>
3. Install vscode <https://code.visualstudio.com/>

Work with venv

Create folder my\_first\_proj

Create environment

The documentation is available at the link:

<https://packaging.python.org/en/latest/guides/installing-using-pip-and-virtual-environments/>

Important commands

py -m venv .venv

.venv\Scripts\activate

Pip install <’необходимые пакеты’>

python -m pip freeze > requirements.txt

python -m pip install -r requirements.txt

Work with conda environments

Create environment with conda

The documentation is available at the link:

https://conda.io/projects/conda/en/latest/user-guide/tasks/manage-environments.html

Краткий листинг

conda create --name <my-env>

conda activate myenv

conda install -n myenv scipy (если не активно)

conda env export > environment.yml

conda env create -f environment.yml

# Home work

Task №1

Create your own environment using conda with the name "my\_\*your last name\*"

* + Conda create -p “C:\Users\Kello JULIEN\DevBox\Projects\.mozart” “.mozart”
* Install the package [geopandas](https://github.com/geopandas/geopandas)
* Install the package seaborn
* Install the package nltk
  + conda activate “C:\Users\Kello JULIEN\DevBox\Projects\.mozart”
  + conda install -n geopandas seaboran nltk
* Install the Nightly build <https://github.com/dmlc/xgboost?tab=readme-ov-file>

Use the link https://s3-us-west-2.amazonaws.com/xgboost-nightly-builds/list.html

* + step 1: download the latest wheel file «xgboost-2.2.0.dev0+bba6aa74fbb0eb67b1a2f8f5b0fe3868d33b9df0-py3-none-win\_amd64.whl» into the following directory
    - C:\Users\Kello JULIEN\Downloads\
  + step 2: go to the directory where the wheel file is located
    - cd C:\Users\Kello JULIEN\Downloads\
  + step 3: execute the command below
    - pip install "C:\Users\Kello JULIEN\Downloads\xgboost-2.2.0.dev0+bba6aa74fbb0eb67b1a2f8f5b0fe3868d33b9df0-py3-none-win\_amd64.whl"
* Create the environment.yml
  + #conda env create -f environment.yml
  + conda env export > "c"\users\kello julien\DevBox\Projects\.mozart\.environment.yml'
* Output the versions of installed packages in the CLI, some packages may not be installed.
  + conda list > "c:\users\kello julien\DevBox\Projects\.mozart\.task1\_installed\_packages”
* Some packages may not be installed immediately, you can not install them, but write why they did not install
  + Some required dependencies were not met during the installation process. As a result, these dependencies needed to be downloaded and installed before proceeding with the installation of the key packages.
* Save the environment.yml and listing with the name task1.txt
  + conda env export > "c:\users\kello julien\DevBox\Projects\.mozart\.environment.yml'
* but **Commit the yml file, git clone the repo onto the target OS, and create a conda environment from it as follows:**
  + go to the directory of the exercise
  + cd C:\Users\Kello JULIEN\Documents\My Documents\Msc Studies\MIPT\Modern State of AI\Python\Homeworks
  + execute the following commands
    - git init
    - git status
    - git add .environment.yml
    - git commit -m “add the environment file into master branch of the git repository.”

# Git Commands

git init #creat git empty repo  
git add file\_names # add file to git  
git commit -m " some text " #create save point  
git checkout "sha1" #load save point  
git log --all --graph --decorate #show tree git  
  
  
git remote add origin git@github.com:girafe-ai-edu/python.git #your link  
git branch -M main  
git push -u origin main  
  
  
  
git remote add origin https://github.com/girafe-ai-edu/practice-1-and-2-BitByteBolt

Task №2

* Create your own environment using venv with flag -–prompt « my\_\*ваша фамилия\*»
  + py -m venv “*C:\Users\Kello JULIEN\DevBox\Projects\.chopin”*  --prompt .chopin
  + *To activate the environment exectute the following commands*
  + cd “C:\Users\Kello JULIEN\DevBox\Projects\.chopin\Scripts>*”*
  + activate

pip

* Install the package [geopandas](https://github.com/geopandas/geopandas)
  + pip install geopandas
* Install the package seaborn
  + pip install seaborn
* Install the package nltk
  + pip install nltk
* Install the Nightly build <https://github.com/dmlc/xgboost?tab=readme-ov-file>

Use the link <https://s3-us-west-2.amazonaws.com/xgboost-nightly-builds/list.html>

* + pip install --pre --upgrade xgboost --extra-index-url <https://s3-us-west-2.amazonaws.com/xgboost-nightly-builds/>
* Create the environment.yml
  + conda env export > environment.yml
* Output the versions of installed packages in the CLI, some packages may not be installed.
  + py -m pip freeze > "C:\Users\Kello JULIEN\DevBox\Projects\.chopin\task2\_installed\_packages"
* Some packages may not be installed immediately, you can not install them, but write why they did not install
  + Some required dependencies were not met during the installation process. As a result, these dependencies needed to be downloaded and installed before proceeding with the installation of the key packages.
* Save the environment.yml and listing with the name task1.txt
  + conda env export > environment.yml
* Save the requirements.txt and listing with the name task2.txt
  + py -m pip freeze > "C:\Users\Kello JULIEN\DevBox\Project
  + s\.chopin\task2\_requierments.txt"

python -m pip freeze > requirements.txt

python -m pip install -r requirements.txt