

1 Setup Python 3.8 with Miniconda

This section will focus on installing Python 3.8. There are many ways to setup python. Here, we will use *Miniconda* since that is a painless way to do it.

1.1 Linux

- Download the Miniconda Linux installer for Python 3.8: <https://docs.conda.io/en/latest/miniconda.html> Usually the 64-bit version is correct. Use `wget` [link] to download a file in the terminal.
- Open the terminal and `cd` into the folder containing *Miniconda3-latest-Linux-x86_64.sh*.
- Run `bash Miniconda3-latest-Linux-x86_64.sh`. Install and remember to select the correct installation directory when working with computers in the PC pool as described above. When asked by the installer to initialize Miniconda3, answer yes. This way, your `/.bashrc` file will be modified so you have conda available at startup.
- Close and reopen your terminal window to make sure the changes take effect.
- Test your installation by running `conda --version` to see the its version.

1.2 Windows 10

- Download miniconda: <https://docs.conda.io/en/latest/miniconda.html> for Python 3.8 and install it. Usually the 64-bit version is correct.
- Open the *Anaconda Prompt (miniconda3)* you just installed.
- Run the command `python -V`. It should output Python 3.8.3 or similar.

1.3 macOS

There are two ways to install Miniconda in macOS.

- Download Miniconda3 MacOSX 64-bit pkg for Python 3.8: <https://docs.conda.io/en/latest/miniconda.html>
- Open *Miniconda3-latest-MacOSX-x86_64.pkg* in the Finder and follow the instructions on screen.
- When installation is complete, test it by opening a terminal and running `conda --version` to see its version.

OR

- Download Miniconda3 MacOSX 64-bit bash for Python 3.8: <https://docs.conda.io/en/latest/miniconda.html>
- Open the terminal and `cd` into the folder containing *Miniconda3-latest-MacOSX-x86_64.bash*.
- Run `bash Miniconda3-latest-MacOSX-x86_64.bash`. Accept the default settings.
- Close and reopen your terminal window to make sure the changes take effect.
- Test your installation by running `conda --version` to see the its version.

2 Set up your conda environment

Next we will set up conda with a new environment named `mysprenv` which uses Python 3.8. Run the following commands in your Miniconda prompt (Windows) or terminal (macOS, Linux):

```
conda --version
conda update conda -y
conda create --name mysprenv python=3.8 -y
conda activate mysprenv
conda env list
```

The last command should show you all installed environments (including `base` and the activated `mysprenv` environment). This way, you have a separate environment to install everything for this course and avoid possible interference with/from other python projects.

Note: Whenever you start the miniconda prompt/terminal for this course, run `conda activate mysprenv` to switch to the correct environment.

3 Install and run jupyter notebooks

- Download or clone the exercise repository.
- Open the Miniconda prompt (Windows) or terminal (macOS, Linux).
- Activate the environment you created in the section above.
- `cd` into the folder of the exercise repository.
- Run `pip install -r requirements.txt` to install the required packages.
- Run `jupyter notebook` to open a browser window with the jupyter notebook interface.
- Navigate into `templates` and open `basics.ipynb`