Additional Software Installation Instructions

If you are not able to install Anaconda, you will need to install Python and Jupyter Lab and Jupyter Notebooks separately

Python

Python is a popular language for research computing, and great for general-purpose programming as well. Installing all of its research packages individually can be a bit difficult, so we recommend Anaconda, an all-in-one installer. Please make sure you install Python version 3.x (e.g., 3.6 is fine).

Jupyter Notebook

We will be using Python in the Jupyter Notebook, a programming environment that runs in a web browser (Jupyter Notebook will be installed by Anaconda). If you have not downloaded Anaconda, you may wish to install just Jupyter Notebook from using the instructions here.

JupyterLab

If you have not downloaded Anaconda, you may wish to install just JupyterLab which can be installed using conda, mamba, pip, pipenv or docker using the online instructions.

Unix shell

For MacOS and Linux users, there is no need to install anything.
For windows users, you can install Git Bash or Cygwin. The instructions for Git bash is as follows:

1. Download the Git for Windows installer.
2. Run the installer and follow the steps below:
    a. Click on "Next" four times (two times if you've previously installed Git). You don't need to change anything in the Information, location, components, and start menu screens.
    b. **From the dropdown menu select "Use the Nano editor by default" (NOTE: you will need to scroll up to find it) and click on "Next".**

c. On the page that says "Adjusting the name of the initial branch in new repositories", ensure that "Let Git decide" is selected. This will ensure the highest level of compatibility for our lessons.
d. Ensure that "Git from the command line and also from 3rd-party software" is selected and click on "Next". (If you don't do this Git Bash will not work properly, requiring you to remove the Git Bash installation, re-run the installer and to select the "Git from the command line and also from 3rd-party software" option.)
e. Ensure that "Use the native Windows Secure Channel Library" is selected and click on "Next".
f. Ensure that "Checkout Windows-style, commit Unix-style line endings" is selected and click on "Next".
g. **Ensure that "Use Windows' default console window" is selected and click on "Next".**
h. Ensure that "Default (fast-forward or merge) is selected and click "Next"
i. Ensure that "Git Credential Manager **Core**" is selected and click on "Next".
j. Ensure that "Enable file system caching" is selected and click on "Next".
k. Click on "Install".
l. Click on "Finish" or "Next".

3. If your "HOME" environment variable is not set (or you don't know what this is):
    a. Open command prompt (Open Start Menu then type `cmd` and press `Enter`)
    b. Type the following line into the command prompt window exactly as shown:
    `setx HOME "%USERPROFILE%"`
    c. Press Enter, you should see `SUCCESS: Specified value was saved.`
    d. Quit command prompt by typing `exit` then pressing `Enter`

Git

The Jupyter Notebooks are published on GitHub. You can download the notebooks as a zip file and so will not need to install git.

If you want to install git and/or GitHub, you can use the 'git clone' command and/or fork the repository in GitHub.
Further information

- Git
- GitHub

Visual Studio Code (VS Code)

https://code.visualstudio.com/

You can work with Jupyter notebooks in Visual Studio Code as well. You must activate an Anaconda environment in Visual Studio Code, or another Python environment in which you have installed the Jupyter package. More information on how to do this is available.