Windows setup sequence to run a301 Jupyter notebooks.

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Follow the steps in column 1 exactly as written. This sequence assumes you are running a laptop or computer that uses the Windows 10/11 operating system. NOTE: Commands must be typed EXACTLY as written: copy and pasting doesn’t work.

**Table 1: One-time setup instructions**

|  |  |  |
| --- | --- | --- |
|  | **Do this …** | **… to accomplish this.** |
| 1 | * Download miniconda from <https://docs.conda.io/en/latest/miniconda.html>; choose the *Miniconda3 Windows 64-bit* version. * Run the downloaded executable file, agreeing to the licenses and accepting all defaults. * You should install for “just me”. | Install “miniconda”, software that both manages packages you will fetch later, and includes basic components of Python. |
| 2 | - Tap the Windows key, type “Anaconda Powershell”, press Enter.  You should get the command line window showing something like:  (miniconda3) Users/your-name> | Run “Anaconda  Powershell prompt  (miniconda3)” |
| 3 | Make a new folder by typing the following at a new terminal prompt  mkdir -p ~/repos/a301  where “~” means “my home folder” and corresponds to the path you see when you type  echo $HOME  at the prompt  Change to this directory by typing  cd ~/repos/a301  Then type pwd    This should show your a301 folder as your current working folder.  This is called a “path”, copy and paste it into whatever you use for keeping notes as you will use it anytime you want to use jupyter notebook in future. | Use a few basic command line instructions, see where you are (which folder), what’s there. |
|  | **Do this …** | **… to accomplish this.** |
| 4 | Download the file named “environment.yml” from the following Dropbox link:  [environment.yml](https://www.dropbox.com/scl/fi/79tn8us8w7qy7w4tbyr5s/environment.yml?rlkey=9tyn28ldricha8f0d97t48l9u&st=ncd3dx9j&dl=0)  At a prompt type start . (the word start followed by a period) to start Explorer in this folder.  Use Explorer to move your environment.yml file from your Downloads folder to your a301 folder. You should see the filename listed when you type ls at the command prompt | Download the specifications for your conda environment.    For more info: see the explanation of “why environments” in Resources below |
| 5 | In the folder ~/repos/a301  Set conda-forge as your preferred source of python packages. Note that “--add” is two short dashes followed by add  conda config --add channels conda-forge  followed by (again, type two short dashes followed by set)  conda config --set channel\_priority strict  create the a301 environment by typing (again, dashes are doubled)  conda env create –-name a301 –-file environment.yml   * mamba will begin downloading and installing packages. * Type conda env list You should see a list of two environments: "base" and "a301" | Starting from the default base environment, build a new environment required for running Python and Jupyter notebooks for this course. |
| 7 | - Activate the a301 environment by typing:  conda activate a301 | Switch to the a301 environment. |

**Table 2: To use jupyter notebook any time**

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| --- | --- | --- |
| 1. | Tap the Windows key, type “Anaconda Powershell”, press Enter.  You should get the command line window showing something like:  (miniconda3) Users/your-name> |  |
| 2. | Change into your a301 folder by typing    cd ~/repos/a301 |  |
| 3. | - Type conda activate a301 | Makes the packages specified by the “a301” environment available to Jupyter. |
| 4. | * Type: jupyter lab. * You should see your browser open a new window with the Jupyter Notebook interface. If not, get help from the instructor / TA. | Test Jupyter Notebooks. |

Resources

Using the command line and “shells” :

* <https://eoas-ubc.github.io/tut-commandline.html?highlight=commandline> .

Explanation of “why environments”:

* <https://www.freecodecamp.org/news/why-you-need-python-environments-and-how-to-manage-them-with-conda-85f155f4353c/> .

Jupyter documentation:

* Jupyter lab -- <https://jupyterlab.readthedocs.io/en/stable/>