configuring jupyter

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Note

These steps are **optional**, as in *most* cases you will be able to use **jupyter** with the default settings.

generating a config file

In order to change the settings used by **jupyter** on launch, you first have to generate a configuration ("config") file.

To do this, open the **Command Prompt** from **Anaconda Navigator** (making sure that your egm722 environment is active). At the **Command Prompt**, enter the following command:

jupyter lab --generate-config

This should create a new folder, [.jupyter], in your [home] directory, along with a python script in that directory: jupyter_lab_config.py



Note

Be sure to check/note the location that the command prints out - it may be slightly different from what I have on my computer.

changing the default launch directory

By default, Jupyter Lab will open in your home directory (on Windows, this is most likely [C:\Users\<your_username> whatever directory you launch it from.

For security reasons, jupyter will not allow you to navigate to the parent directory of the launch location, so if you have cloned the repository to a different location (e.g., C:\egm722\) or an external drive such as D:\) and you launch from your home directory, you will need to change the default opening folder to wherever you have cloned your repository.

At the command prompt, with your egm722 environment activated, enter the following command:

jupyter --paths

This will show you the path to the version of **jupyter** used by your [egm722] environment:

```
C:\Windows\system32\cmd.exe
                                                                                                                 licrosoft Windows [Version 10.0.19043.1586]
(c) Microsoft Corporation. All rights reserved.
(egm722) C:\Users\e16006469>jupyter notebook --generate-config
writing default config to: C:\Users\e16006469\.jupyter\jupyter notebook config.py
(egm722) C:\Users\e16006469>jupyter --paths
config:
   C:\Users\e16006469\.jupyter
   C:\Users\e16006469\Anaconda3\envs\egm722\etc\jupyter
   C:\ProgramData\jupyter
data:
   C:\Users\e16006469\AppData\Roaming\jupyter
   C:\Users\e16006469\Anaconda3\envs\egm722\share\jupyter
   C:\ProgramData\jupyter
untime:
   C:\Users\e16006469\AppData\Roaming\jupyter\runtime
(egm722) C:\Users\e16006469>_
```

In the example above, it's:

C:\Users\e16006469\Anaconda3\envs\egm722\etc\jupyter

Now, copy the script <code>jupyter_lab_config.py</code> into that folder (you may need to create a new folder, <code>jupyter</code>, in <code>C:\Users\<your_username>\Anaconda3\envs\etc</code>).

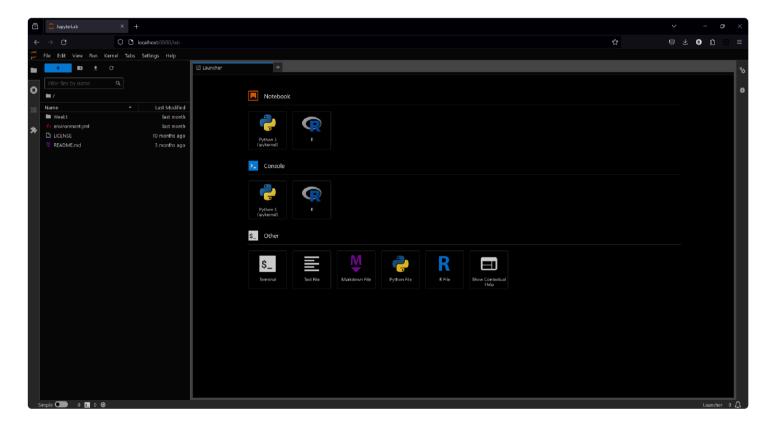
Open this newly-copied script in your IDE of choice (or a text editor such as **Notepad++** or **Notepad**) and search for [c.ServerApp.root_dir] - for me, it's at line 1018:

1016 ## The directory to use for notebooks and kernels.

Uncomment this line (remove the # and the space from the start), and add the path to your repository here (remember to add an $\lceil r \rceil$ before the first quotation mark):

```
1016 ## The directory to use for notebooks and kernels.
1017 # Default: ''
1018 c.ServerApp.root_dir = r'C:\Users\e16006469\egm722'
```

Now, save the file, and launch **Jupyter Lab**, making sure that your egm722 environment is still enabled. You should see that it opens in your repository folder by default:





Note

This has only set the default "root" directory for this version of **jupyter**.

If you create another conda environment, you will need to repeat the steps of copying the config file to the <path-to-conda>\envs\<new environment>\etc\jupyter | directory, then editing the | c.ServerApp.root_dir | setting to point to the desired directory.

configuring the jupyterlab terminal

This step will enable you to use the **Terminal** in JupyterLab with a conda environment pre-loaded.



Note

This step should only be necessary on a Windows computer. To check whether you need to complete this step, launch Jupyter Lab, then open a Terminal.

If you see a prompt that looks like the following:

(egm722) C:\Users\bob\egm722>

Then you have already changed the terminal from the default **PowerShell** to the **Command Prompt**, and you can move on to installing PyCharm.

If you are using Windows, we need to change the **Terminal** from the default (**PowerShell**) to the **Command Prompt**



Warning

If you have not already done so, please complete the steps in the section generating a config file above.

Open the original config file in **Notepad++** or a similar text editor (it should be located at

%HOME%\.jupyter\jupyter lab config.py), and search for c.ServerApp.terminado settings (for me, this is at line 1062):

```
C:\Users\e16006469\.jupyter\jupyter lab_config.py - Notepad++
                                                                                                                      <u>File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?</u>
                                                                                                                        + ▼ ×
 ] 🔒 🖴 🖺 🥫 🖟 👍 🖟 🖍 🖍 🖒 🕽 C 🌣 🛬 🤏 🤏 🖫 🖼 🖺 🖫 🥦 🧗 👂 💌 🗈 🕩 🕩 🖼
iupyter_lab_config.py
 1057 # Default: []
 1058 # c.ServerApp.static_immutable_cache = []
## Supply overrides for terminado. Currently only supports "shell_command".

1061 # Default: {}
1062 # c.ServerApp.terminado settings = {}
1063
1064 ## Set to False to disable terminals.
1065 #
1066 #
                   This does *not* make the server more secure by itself.
Anything the user can in a terminal, they can also do in a notebook.
                   Terminals may also be automatically disabled if the terminado package
                   is not available.
1074 ## DEPRECATED. Use IdentityProvider.token
1075 # Default: '<DEPRECATED>'
1076 # c.ServerApp.token = '<DEPRECATED>'
                                                                                             Windows (CR LF) UTF-8
Python file
                                 length: 39,640 lines: 1,132
                                                            Ln: 1,062 Col: 3 Pos: 36,699
```

Inside of the curly brackets, add the following text:

```
'shell command': [r'C:\WINDOWS\System32\cmd.exe']
```

```
C:\Users\e16006469\.jupyter\jupyter_lab_config.py - Notepad++
                                                                                                                      File Edit Search View Encoding Language Settings Tools Macro Run Plugins Window ?
                                                                                                                       + ▼ ×
 iupyter_lab_config.py
        # Default: []
        # c.ServerApp.static immutable cache = []
1060 ## Supply overrides for terminado. Currently only supports "shell_command".
1062 d.ServerApp.terminado_settings = {
1063 'shell_command': [r'C:\WINDOWS\.
            'shell command': [r'C:\WINDOWS\System32\cmd.exe']
1064
1066 ## Set to False to disable terminals.
1067 #
1068 #
                    This does *not* make the server more secure by itself.
1069 #
                   Anything the user can in a terminal, they can also do in a notebook.
1070 #
Terminals may also be automatically disabled if the terminado package
                    is not available.
1074 # c.ServerApp.terminals enabled = False
        ## DEPRECATED. Use IdentityProvider.token
        # Default: '<DEPRECATED>'
Python file
                                 length: 39,695 lines: 1,134
                                                                                             Windows (CR LF) UTF-8
                                                                                                                          INS
                                                            Ln: 1.062 Col: 2 Pos: 36.698
```

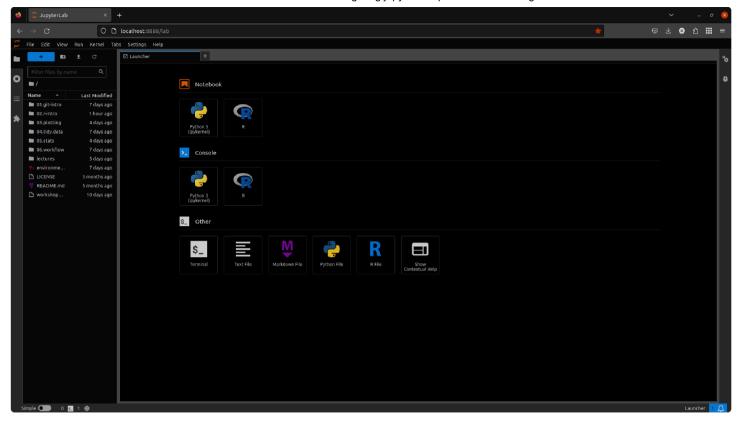
Note

CMD.exe is, by default, located at [%windir%\system32\cmd.exe]. To double-check that your [%windir%] location is, in fact, [C:\WINDOWS], you can type [echo %windir%] at the command prompt, and use the location printed out from that command.

Once you have changed the file, save the changes, then close it. Now, launch **JupyterLab** from the command prompt (again, making sure that your egm722 environment is active):

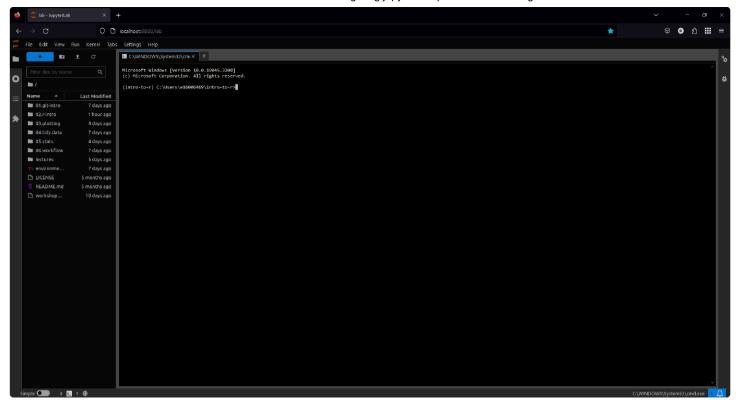
jupyter lab

You should see a browser window like this open up:



If you don't see this exactly, don't worry. Click the blue + button in the upper left-hand corner of the window to open the **Launcher**.

Next, click on **Terminal** under **Other** to launch a terminal window. You should see something like this:



If you don't see a **Command Prompt** session with your egm722 environment activated, please let me know and I will do my best to help troubleshoot.

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setting up a conda environment

