DTI Jupyter Quickstart Guide

If you've just been awarded a grant from the DTI and need to get started using C3 resources for your project, this guide shows the fastest method to get started with a Jupyter notebook. If any of these steps don't work for you, please send us an email at help@c3dti.ai and we'll either make the instructions clearer, or work with you to resolve your issue.

This notebook is configured with a set of packages scientists might find useful, but likely won't satisfy all of your needs. Contact the DTI team to have us configure the environment you need, or we can point you to the right resources.

1. **Look at our DTI Readiness Checklist to check that all accounts you need are in order.**
2. **Request a tag through help@c3dti.ai or check your emails for a tag the DTI has already sent you.**
   a. Find your `<vanity_url>` which is a url you will use to access your tag's facilities.
3. **Launch the Jupyter Service**
   a. Access your tag's static console:
      i. `<vanity_url>/static/console`
   b. Open your browser's devtools and go to the Javascript console
      i. On many browsers this is the 'Ctrl+Shift+I' keyboard shortcut; here is an article with directions on how to do this for different browsers on Windows and MacOS.
   c. Check whether a Jupyter is already running
      i. Execute the following command in the browser javascript console
      ii. `Jupyter.inst().state()`
      iii. Returns 'RUNNING' if running, 'STOPPED' if not, 'STARTING' if launching
   d. Launch the Jupyter service
      i. `Jupyter.inst().start()`
      ii. Wait until you the call returns in the browser console. You should get an 'undefined' as the function doesn't return any output.
   e. Navigate to the Jupyter service
      i. `<vanity_url>/jupyter`
4. **Install the python environment**
   a. Open a new Jupyter notebook (we need to get to the Kernel management menu)
   b. Select the "Kernel" menu
   c. Select "Manage Kernels"
   d. Browse the list and select 'install' on the 'py-dataanalysis' kernel. (this is the special kernel signed for this course)
   e. Wait until either there's a timeout, or the spin icon stops and it says 'uninstall'
   f. Refresh the Jupyter notebook
   g. Select the 'Kernel' menu
   h. Select 'Change Kernel'
   i. Select the 'py-dataanalysis' kernel.
5. **Test your code**
   a. Go back to the Jupyter tree page
   b. Upload your notebooks, or open a new notebook
   c. Make sure to select the 'py-dataanalysis' kernel.
   d. Try some code
6. **Shutdown your Jupyter Service**
   a. Remember when you're finished to shutdown your Jupyter resources as leftover running services can impact performance for other users.
   b. You can click the 'Shutdown Service' button on your Jupyter tree page `<vanity_url>/tree`
   c. You can also execute the command `Jupyter.inst().stop()` from your static console page.