

Jupyterhub lets you have your own Python environment where you can work on lab notebooks and homework assignments. You will also need to collect and submit assignments on Jupyterhub.

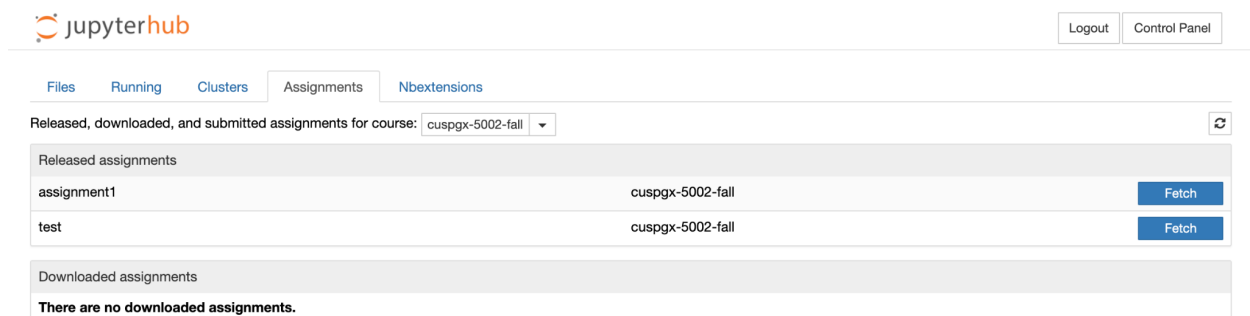
Following are some basic functionalities:

1. After logging in for the first time, the environment will have some directories by default. The lab materials shared by the instructor/TAs are available in the “shared” folder.



The screenshot shows the Jupyterhub interface with the 'Files' tab selected. The top navigation bar includes 'Logout' and 'Control Panel'. Below the navigation bar, there are tabs for 'Files', 'Running', 'Clusters', 'Assignments', and 'Nbextensions'. A message says 'Select items to perform actions on them.' with 'Upload' and 'New' buttons. The file browser shows a directory structure with a root folder '/' containing three items: 'lost+found' (9 days ago), 'shared' (8 days ago), and 'nbgrader\_config.py' (8 days ago, 110 B).

2. The homework notebooks are available in the “Assignments” tab after they are released. To get an assignment in your environment, you need to click “Fetch”.



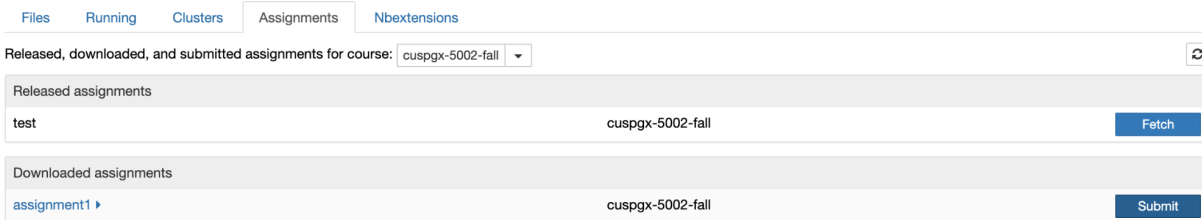
The screenshot shows the Jupyterhub interface with the 'Assignments' tab selected. The top navigation bar includes 'Logout' and 'Control Panel'. Below the navigation bar, there are tabs for 'Files', 'Running', 'Clusters', 'Assignments', and 'Nbextensions'. A message says 'Released, downloaded, and submitted assignments for course: cuspgx-5002-fall'. Below this, there are two sections: 'Released assignments' and 'Downloaded assignments'. The 'Released assignments' section shows a table with two rows: 'assignment1' and 'test', both for the course 'cuspgx-5002-fall'. Each row has a 'Fetch' button. The 'Downloaded assignments' section shows a message: 'There are no downloaded assignments.'

3. When you fetch an assignment, a corresponding directory will appear in the “Files” menu. You can access and run the homework notebooks there.



The screenshot shows the Jupyterhub interface with the 'Files' tab selected. The top navigation bar includes 'Logout' and 'Control Panel'. Below the navigation bar, there are tabs for 'Files', 'Running', 'Clusters', 'Assignments', and 'Nbextensions'. A message says 'Select items to perform actions on them.' with 'Upload' and 'New' buttons. The file browser shows a directory structure with a root folder '/' containing three items: 'assignment1' (seconds ago), 'LAB1\_HW1.ipynb' (5 days ago, 22.9 kB), and 'README.md' (5 days ago, 11 B).

- To submit an assignment, go to the “Assignments” tab and click “Submit” from the downloaded assignments. Make sure to save the assignment file before submitting it. You can submit unlimited times before the deadline.



The screenshot shows the JupyterHub interface with the 'Assignments' tab selected. At the top, there are tabs for 'Files', 'Running', 'Clusters', 'Assignments', and 'Nbextensions'. Below the tabs, a dropdown menu shows 'cuspgx-5002-fall'. The main content area is divided into two sections: 'Released assignments' and 'Downloaded assignments'. In the 'Released assignments' section, there is a table with one row: 'test' for 'cuspgx-5002-fall', with a 'Fetch' button. In the 'Downloaded assignments' section, there is a table with one row: 'assignment1' for 'cuspgx-5002-fall', with a 'Submit' button.

- After the assignment is graded by the TA, a “feedback” folder will be created in a assignment’s directory which will have your solution notebook with the grade and feedback.



The screenshot shows the JupyterHub interface with the 'Files' tab selected. At the top, there are tabs for 'Files', 'Running', 'Clusters', 'Assignments', and 'Nbextensions'. Below the tabs, there is a 'Select items to perform actions on them.' section with 'Upload' and 'New' buttons. The main content area shows a file browser view of the 'assignment1' directory. It contains a table with columns 'Name', 'Last Modified', and 'File size'. The table lists three items: '..' (parent directory), 'feedback' (a folder), and 'LAB1\_HW1.ipynb' (a notebook file). The 'feedback' folder was last modified '4 days ago'. The 'LAB1\_HW1.ipynb' file was last modified 'a day ago' and has a size of '875 kB'.

- To install new python packages in the environment, you need to open the terminal by clicking the “New” option and selecting “Terminal”. Here, you can write the commands for installation.



The screenshot shows the JupyterHub interface with the 'Terminal' window open. The terminal prompt is 'jovyan@jupyter-dk3596:~\$'. The terminal area is currently empty, showing only the prompt and a cursor.