

Getting Started with SciServer

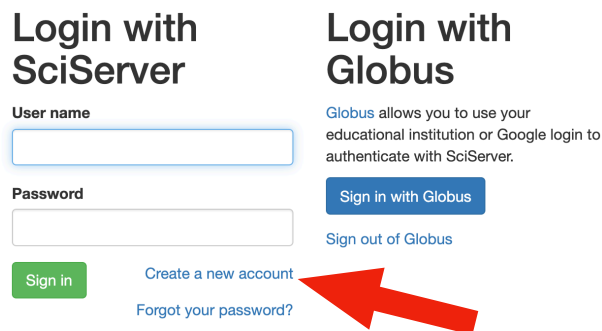
The included exercises are designed to be run using SciServer (<http://www.sciserver.org/>). SciServer is a free, cloud-based research platform, which allows users to access and manipulate large datasets without the need to download any software or data onto a local computer. With SciServer, all you need to access and explore the full dataset from the Sloan Digital Sky Survey is a web-browser!

To setup a new account on SciServer:

1. Navigate to <http://www.sciserver.org/>, and click on “**Login to SciServer**”.

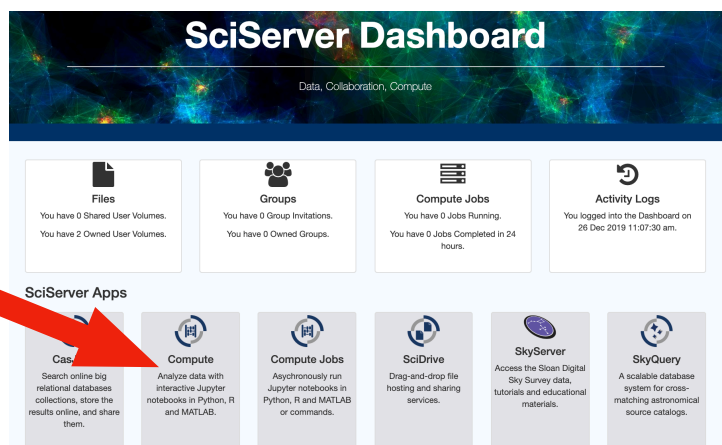


2. Click on “**Create a new account**”, on the left hand side, and fill in your details. Press submit.

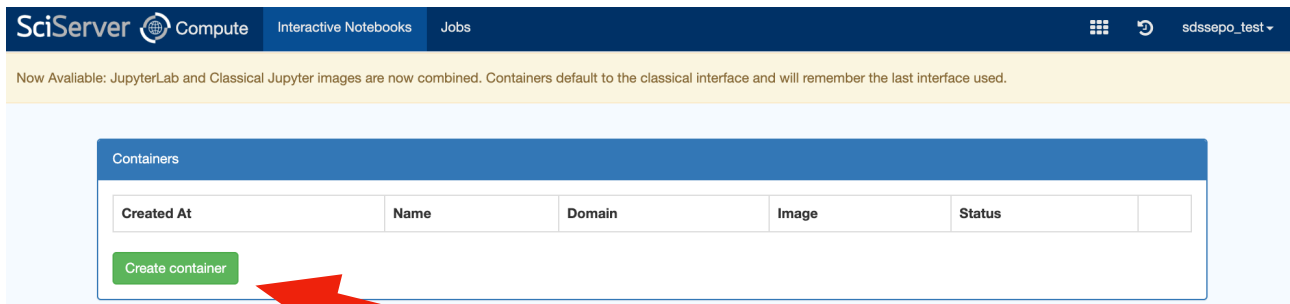


3. Once your account is activated you might need to log in with your details, which will lead you to the SciServer Dashboard panel.

Click on “**Compute**”.



4. You'll now be at your list of "containers" - essentially workspaces. You won't have any, so click "Create container".



5. Give your container a sensible name, and select the following options:

Domain: "Interactive Docker Compute Domain"

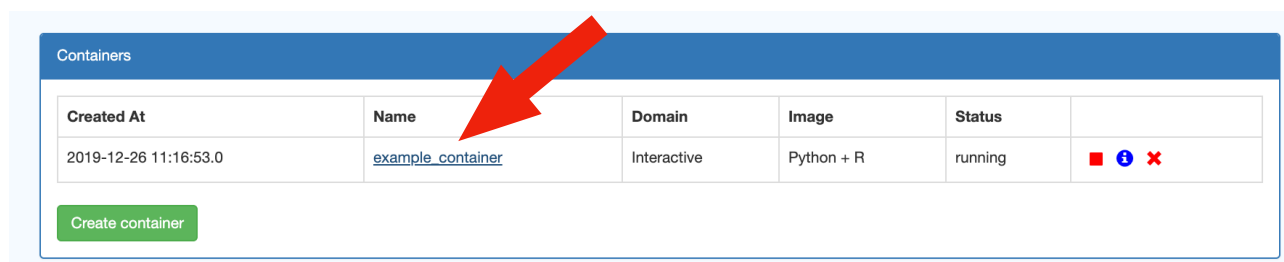
Compute Image: "Python + R"

User volumes: "persistent" and "scratch"

Data Volumes: "Getting Started", "SDSS DAS", and "Manga"

The screenshot shows the 'Create a new container' form. It has a blue header with the title and a close button. The form contains several sections: 'Container name' with a text input field containing 'example_container'; 'Domain' with a dropdown menu set to 'Interactive Docker Compute Domain' and a note about system limitations; 'Compute Image' with a dropdown menu set to 'Python + R' and a note about the image contents; 'User volumes' with two checked checkboxes, 'persistent' and 'scratch', each preceded by a red arrow; 'Data volumes' with four checkboxes, 'Getting Started', 'Manga', 'Ocean Circulation', and 'Recount', with the first three checked and each preceded by a red arrow; and 'SDSS DAS' which is also checked and preceded by a red arrow. At the bottom right is a green 'Create' button.

6. Once created, navigate into your container.



7. If you're familiar with Jupyter, you're now in familiar territory. You always want to work on the "Storage" directory, so navigate onto it.



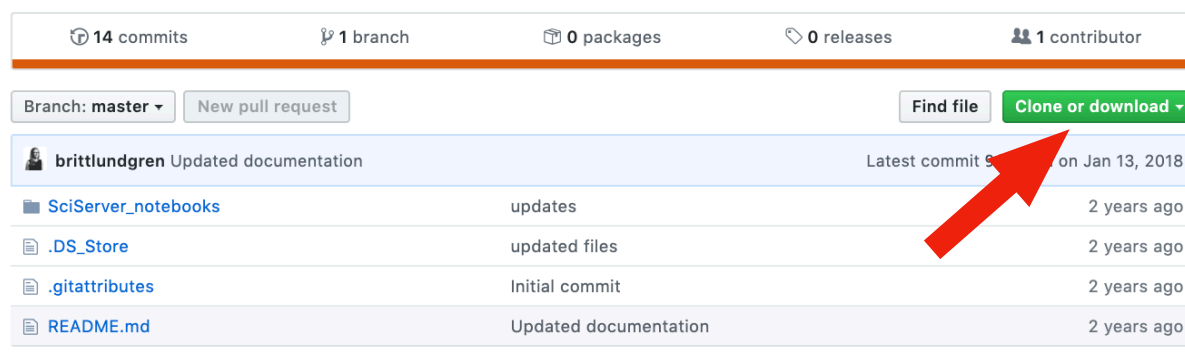
7. Locate the example SDSS/SciServer Python notebooks on GitHub:

Intro-level university exercises: <https://github.com/ritatojeiro/SDSSEPO>

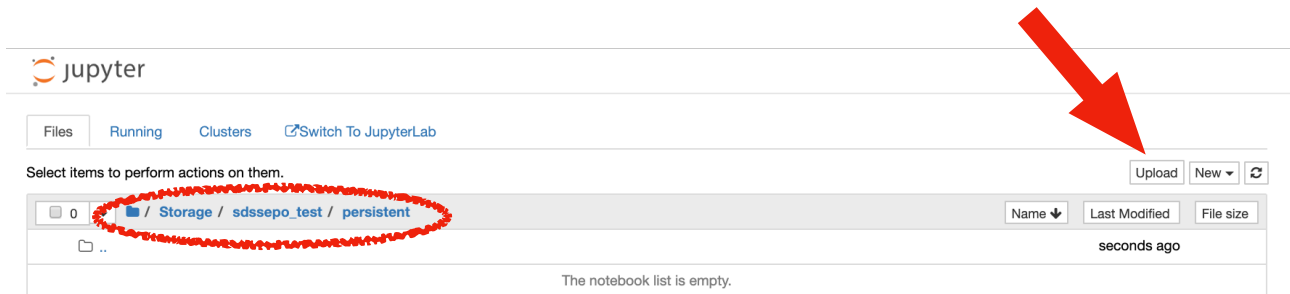
Upper-level university exercises: <https://github.com/brittlundgren/SDSS-EPO>

8. Download them to your local computer. It is recommended that you download the repository as a "zip" file, and extract/unzip the repository before attempting to load the files in SciServer.

Educational materials using the Sloan Digital Sky Survey



9. In SciServer Compute, navigate to your “**persistent**” directory, and use the “**Upload**” button to upload them to your persistent directory.



9. In some cases, the uploaded filenames will end in an unwanted extension. If the filename appears as notebook.ipynb.json or notebook.ipynb.txt, tick the box immediately to the left of the filename. Then click the “Rename” button and delete the extension, making sure the filename ends in .ipynb. Click OK.