PURDUE UNIVERSITY | Rosen Center for Advanced Computing

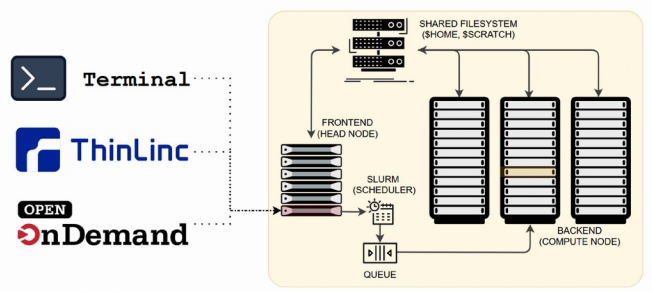
OPEN OnDemand

What is Open OnDemand?

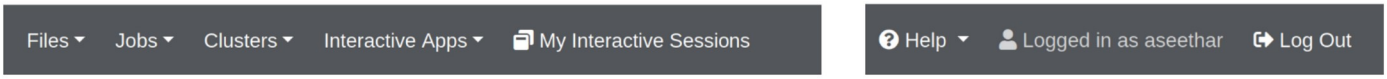
Open OnDemand (OOD) provides browser-based access to HPC resources without requiring deep Linux knowledge. Use it for:

- Graphical applications (Jupyter, RStudio, MATLAB, etc.)
- File management (view, edit, upload, download)
- Job submission and monitoring
- Terminal access

Gateway URL: https://gateway.<CLUSTERNAME>.rcac.purdue.edu



Navigation Overview



Files tab
Browse home/depot/scratch directory
Upload/download via drag-and-drop
Edit text files inline
Create/delete directories

Jobs tab
Your Jobs: Active job table (ID, time, resources, status)
Real-time monitoring
Job composer

Clusters tab
Direct shell access
Full terminal functionality
Same environment as SSH login
Quick and easy!

Interactive Apps tab
Pre-configured applications (RStudio, Jupyter Notebook, etc)
Submit jobs with GUI forms
Specify resources (cores, memory, time)

My Interactive Sessions tab
Monitor running sessions
View logs
Access past session history
Useful for documenting/reproducibility

Help tab
Restarting Web server
General Help
Link to documentation
Support

Logging In

1. Open your browser and navigate to https://gateway.***<cluster>***.rcac.purdue.edu
2. Enter your Purdue credentials, and DFA (Duo) authentication.

Accessing the Shell

1. Connect to Open OnDemand: https://gateway.scholar.rcac.purdue.edu
2. From the navigation bar on the top of the page, click *Clusters*.
3. In the drop-down that appears, click *>_ Scholar Shell Access*.
4. The shell will open in a new window or tab.

Invoking an Interactive Desktop

1. Connect to Open OnDemand: https://gateway.scholar.rcac.purdue.edu
2. From the navigation bar on the top of the page, click *Interactive Apps*.
3. Select 🖥️ *Desktop* from the drop-down menu.

4. Fill out the resource form.
5. Select the Slurm Account/partition that you want to use for your job.
6. Click "Launch"
7. When your interactive job has started, click *Launch Desktop*.
8. From here, you can run graphical applications (fastqc, Jupyter, RStudio, etc.) or access the shell.

Running other Interactive Apps

We are always adding and updating apps on our Open OnDemand service. To run an interactive app, use the following procedure:

1. Connect to Open OnDemand: https://gateway.scholar.rcac.purdue.edu
2. From the navigation bar on the top of the page, click *interactive Apps*.
3. Select your desired app from the drop-down menu.
4. Fill out the resource form.
5. Select the Slurm Account/partition that you want to use for your job.
6. Click "Launch" to queue your job.
7. When your interactive job has started, click *Launch*.

Best Practices

- **Be a good cluster citizen:** Request only the resources (CPUs, memory, time) you truly need. Over-requesting slows your queue time and limits availability for others.
- **Close your sessions:** End interactive sessions properly from **My Interactive Sessions → Delete**. Closing the browser tab does *not* stop the job.
- **Use login nodes wisely:** The **Clusters → Scholar Shell Access** terminal is for file navigation and job submission only. Never run heavy computations on login nodes.
- **Match the tool to the task:**
  - 🧬 **Batch jobs:** For large computations (e.g., genome assembly, RNA-seq alignment).
  - 📊 **Interactive apps:** For exploratory or visualization tasks (e.g., RStudio, Jupyter).
  - 💻 **Shell access:** For quick edits, navigation, or job submission.
- **Check job logs:** If an interactive app fails, open **My Interactive Sessions → Logs** to see error details (e.g., out-of-memory or invalid module).