SaaS Computing Service
DiCOSApp

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Interactive Jobs - SaaS Computing Service

- Kubernetes and Openstack
  - High extensible and reliable virtual environment
- Customized Application Deployment
- Images Repository
  - JupyterLab and various scientific applications
  - Built by user's requirements
- Software-on-demand Web UI
  - No installation and easy to adopt
- Working Space
  - Ceph Filesystem

System Spec

- Node Spec：NVIDIA GPU A100、RTX3090、RTX4090
- Service Web Portal：
  - dicos.grid.sinica.edu.tw
- Mount Space：
  - User Space：/dicos_ui_home/{user}
  - Group Space：/ceph/work/{group}
  - Backup Space：/ceph/project/{group} will be available in 2025

SaaS for Virtualized Computing Service

Scientific Software Repository

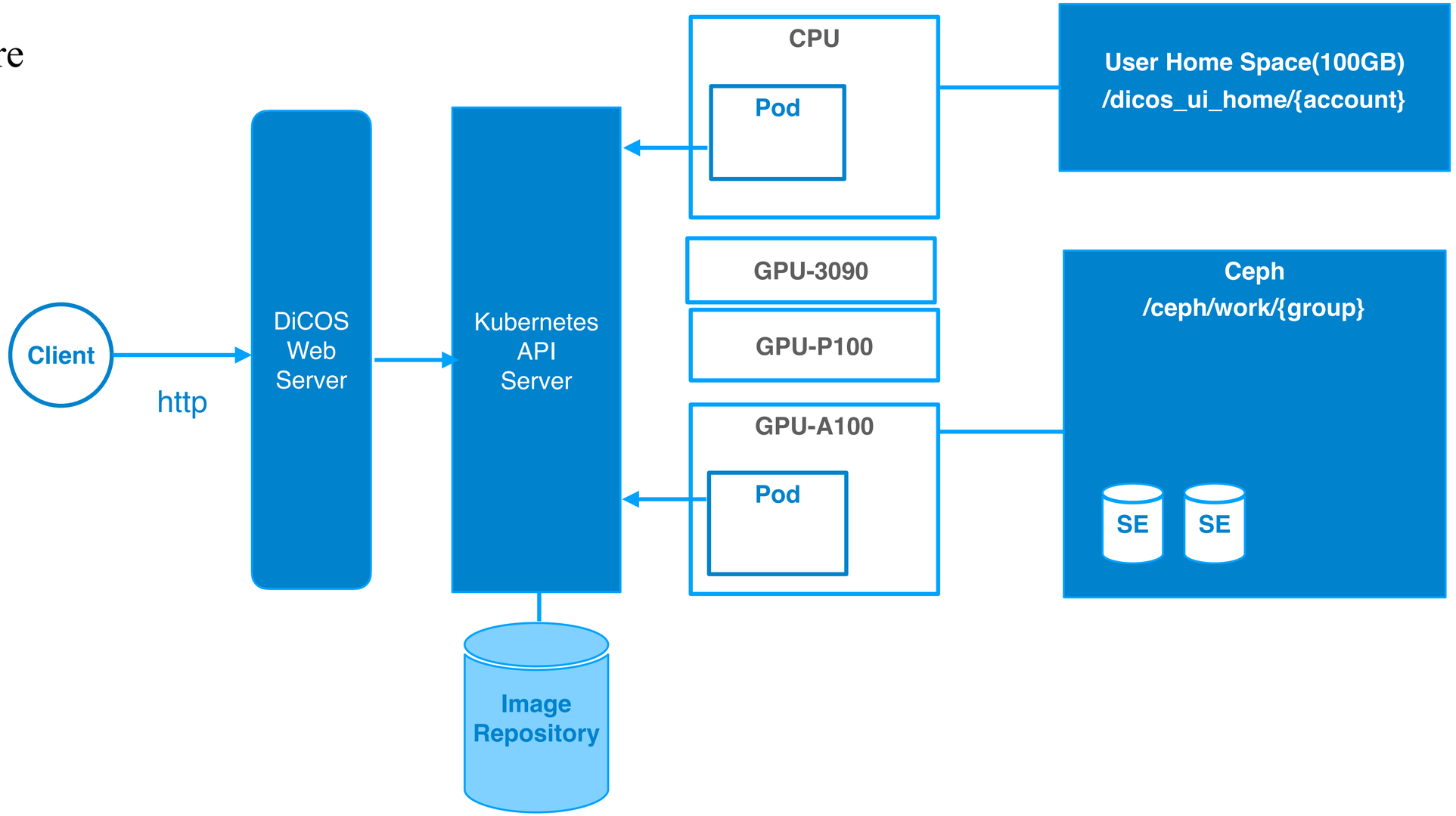
- Interactive：Ovito(Molecular Dynamics)、cisTEM、RELION(Medical Image Reconstruction)
- BioMedical：Cryosparc (* License required from users）
- Anaconda Python packages for ML：JupyterLab、TensorFlow、PyTorch、PyRoot、DeepMD(Molecular Dynamics)…etc.

When your job needs

- Interactive UI
- Specific OS or Application required
- Dedicate node for rapid development for multi-core or GPU to develop and testing your task

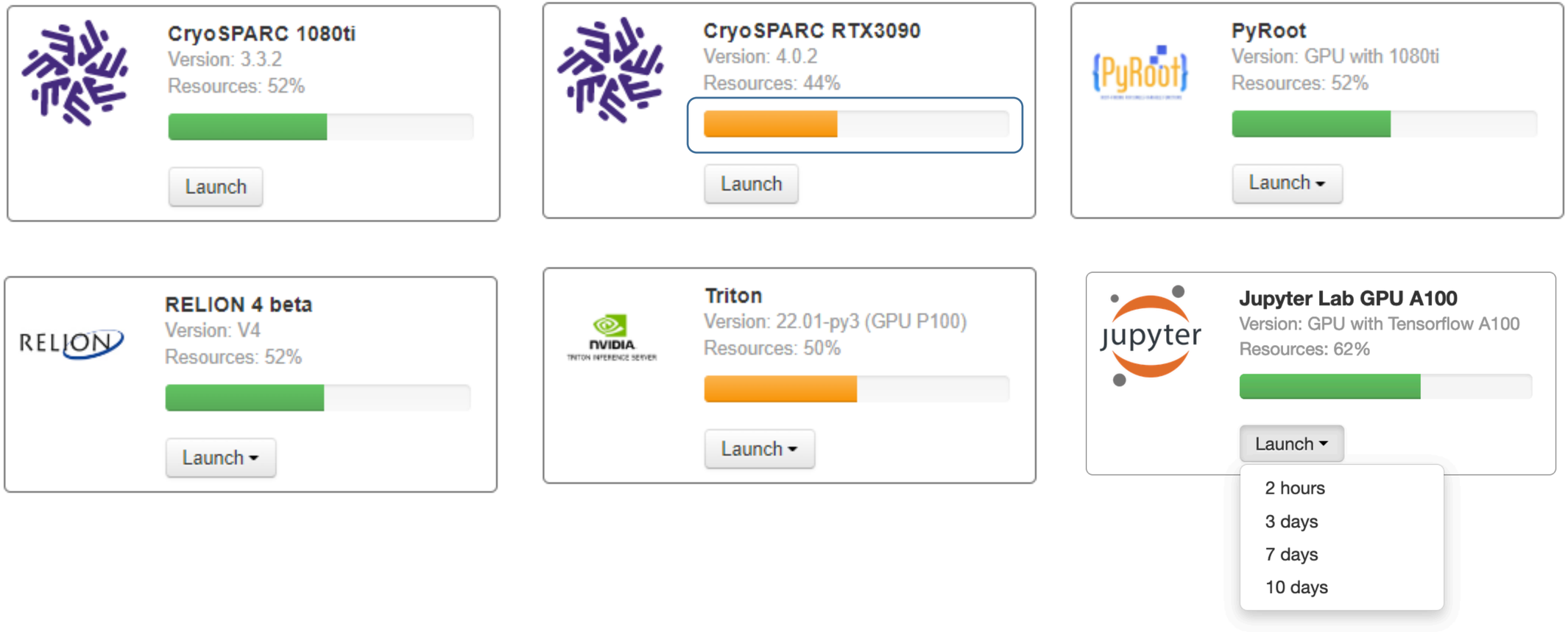
DiCOSApp for SaaS Computing Service

- System Architecture



SaaS for Virtualized Computing Service - Service Portal

https://dicos.grid.sinica.edu.tw/dockerapps/



The path of Disk Space

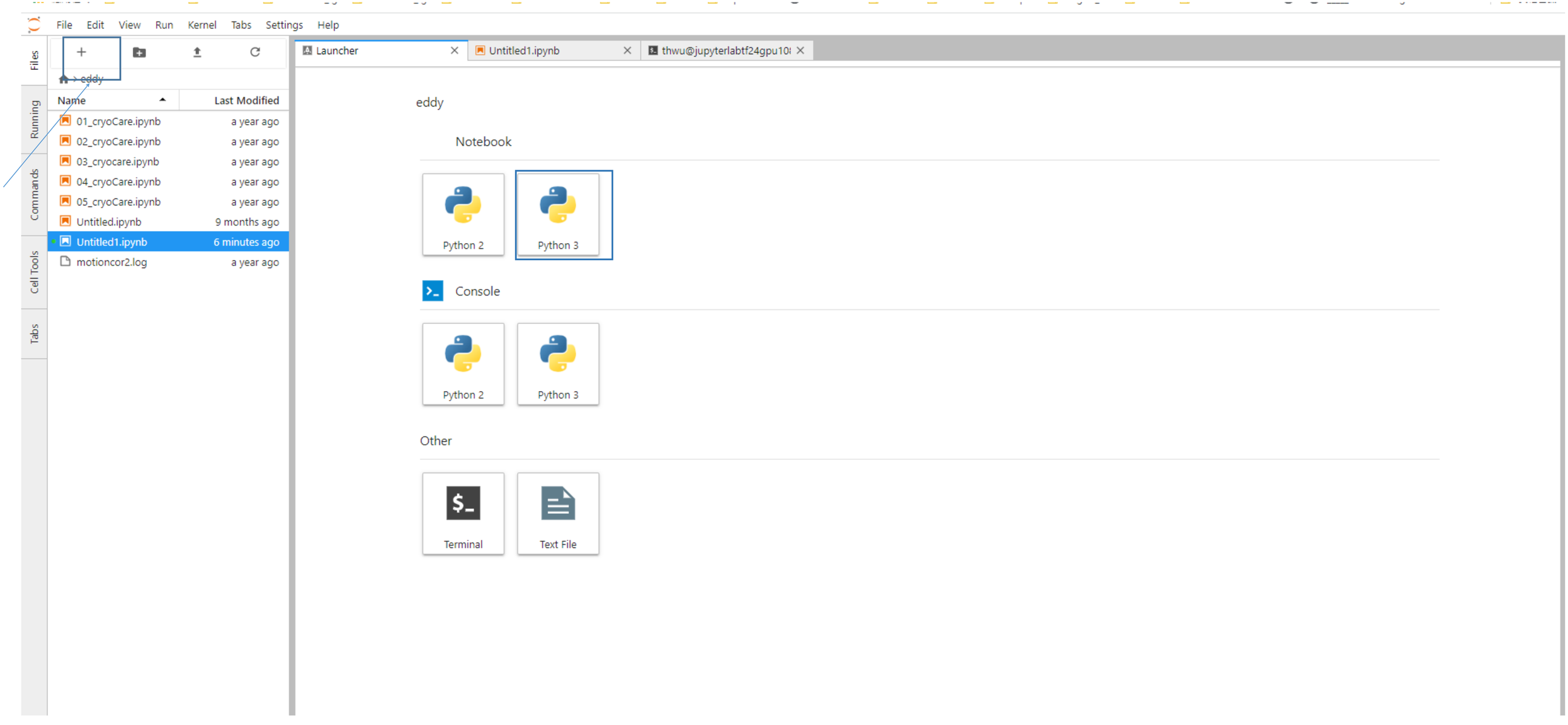
- All user:

  /dicos_ui_home/{user} (UI)
- cryoEM group:

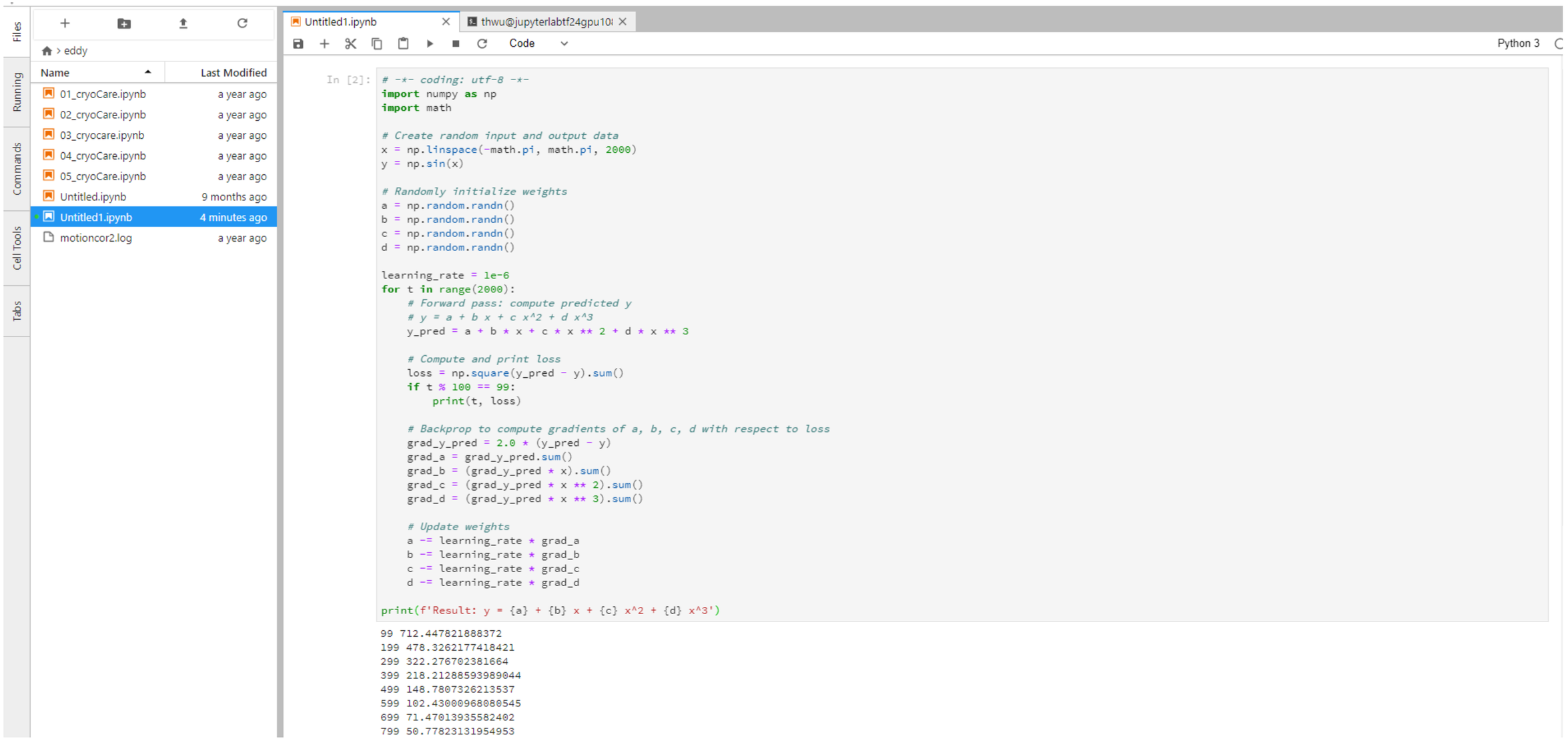
  /activeEM/data/{group}/{user}
- NSTCCore group:

  /ceph/work/{group}/{user}

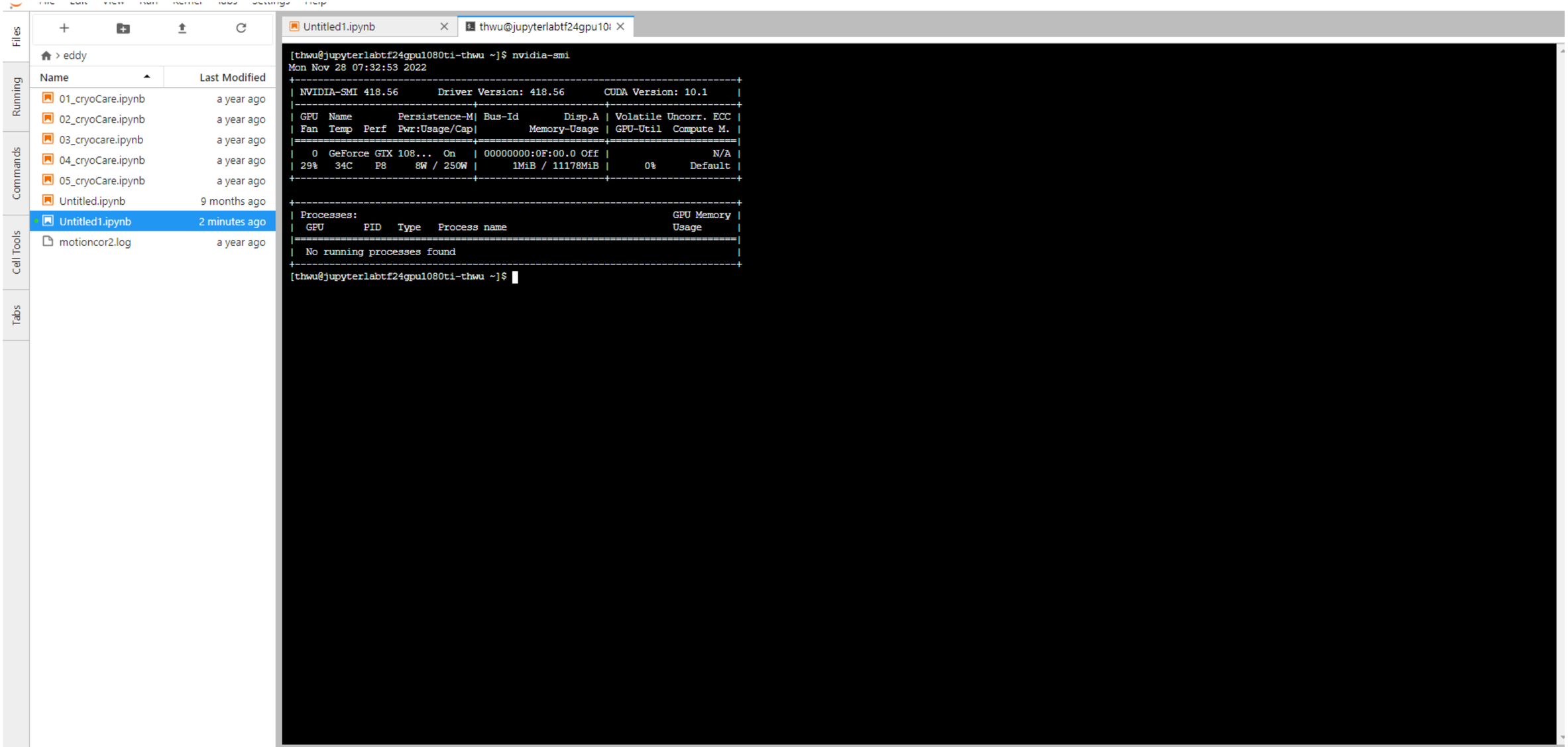
Example 1.1 (Open a Jupyter RTX 3090)



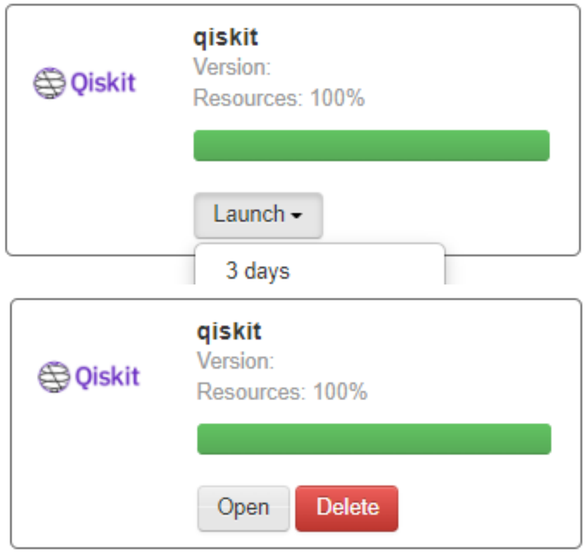
Example 1.2 (Open a Jupyter RTX 3090)

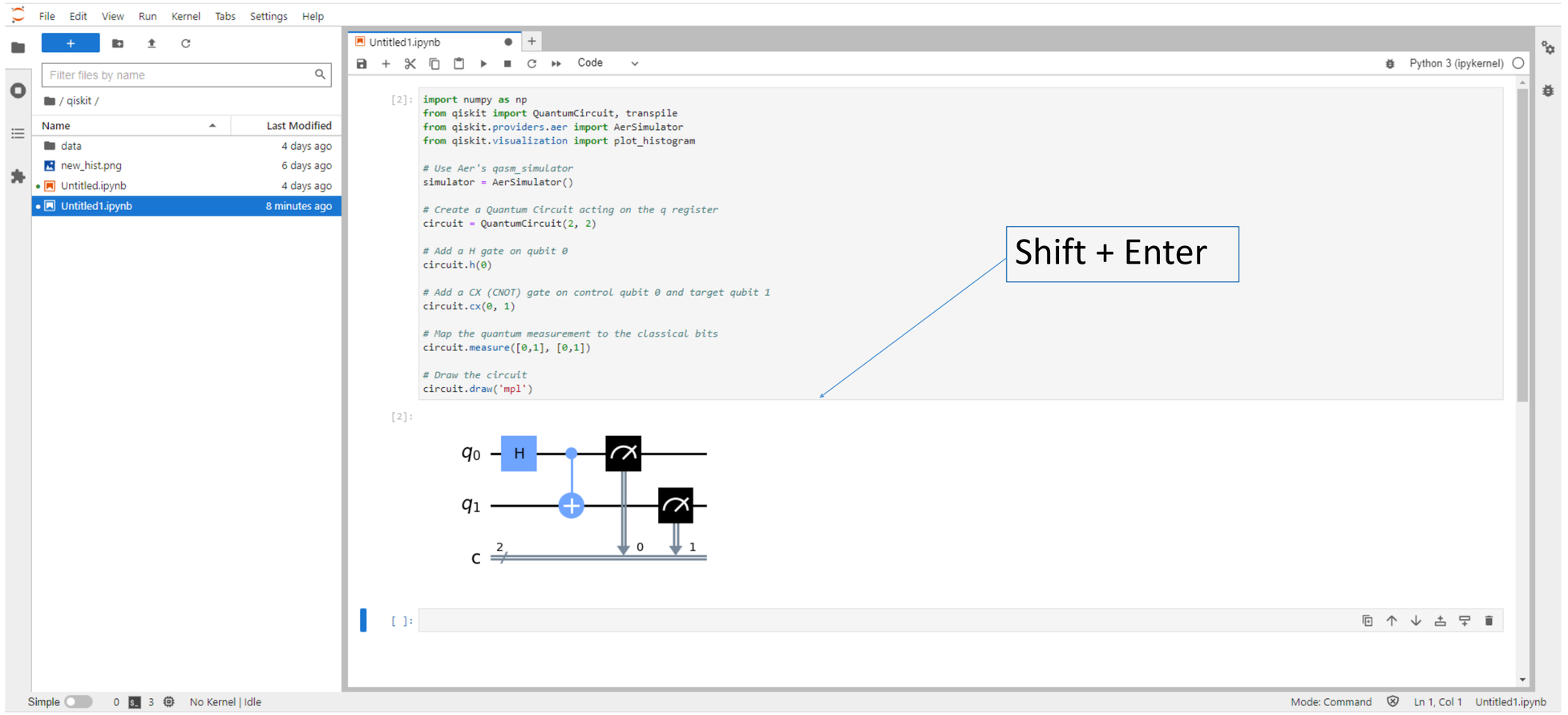


Example 1.3 (Open a Jupyter RTX 3090 with terminal)

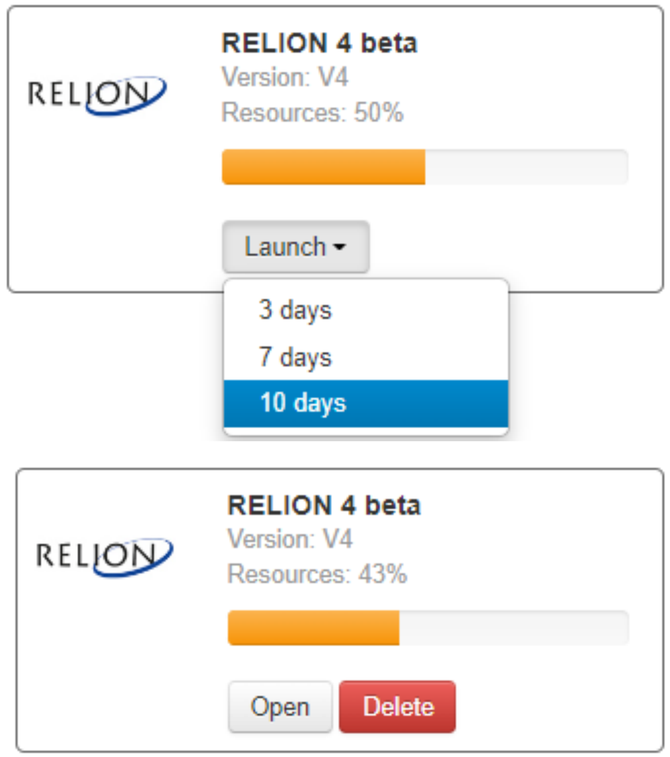


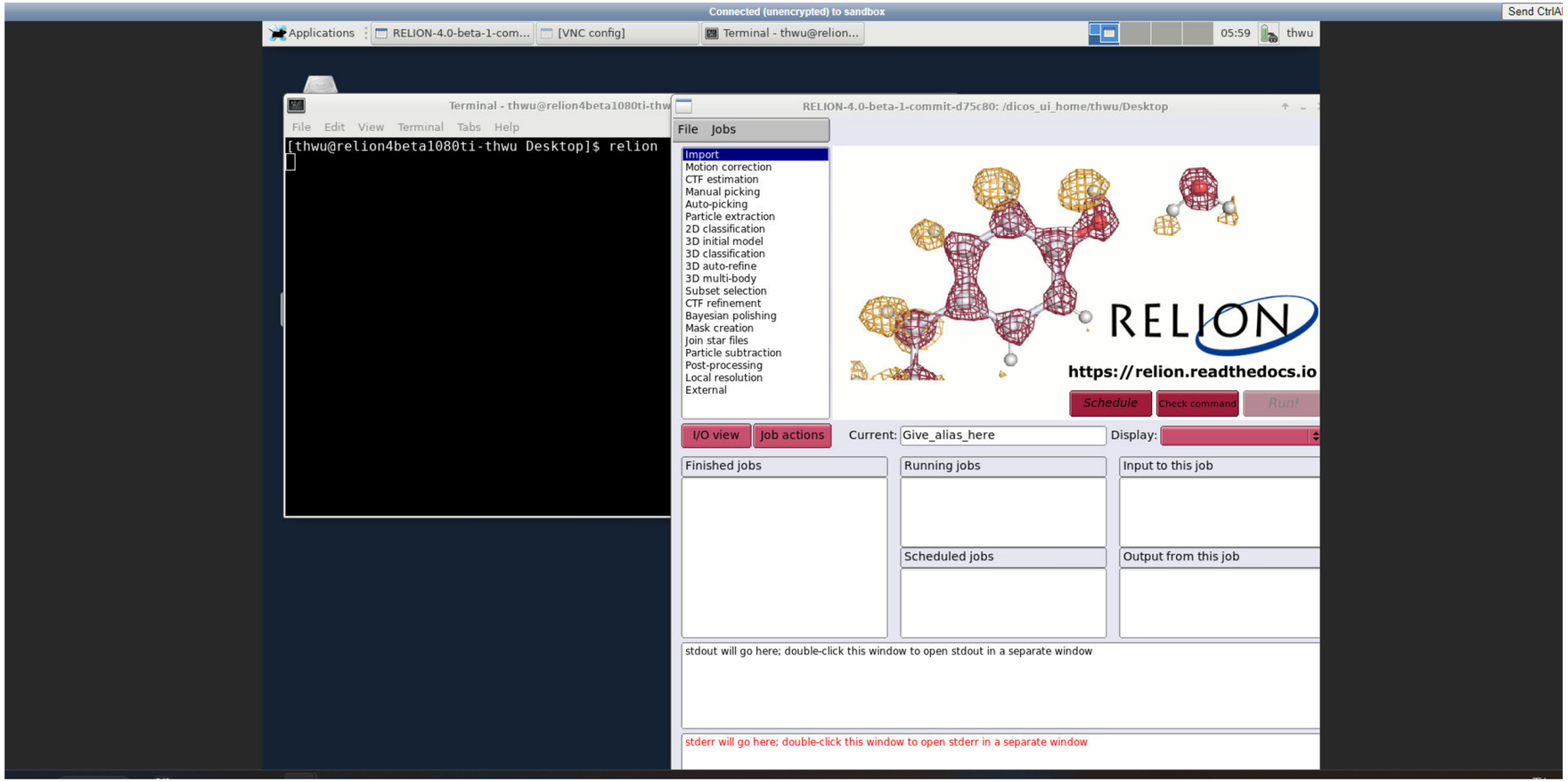
Example 2. (Open a QisKit app)





Example 3. (Open a Relion 4-beta app)





Upload and Download your data

1. **Download [FileZilla Client]**
2. **Host (主機): dicos-ui.grid.sinica.edu.tw**
3. **Account (使用者名稱): account**
4. **Password (密碼): password+2FA**
5. **Port (連接埠): 22**