INTERACTIVE HPC WITH JUPYTERLAB

Training Course – Welcome Day 2

2024-04-22..23 I JENS HENRIK GÖBBERT (J.GOEBBERT@FZ-JUELICH.DE)
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WELCOME

- Hello !

- Live document for this class
  - https://gitlab.jsc.fz-juelich.de/hedgedoc/3y3ppo_2Rq2ieO59LrBotg#
- Class repository
  - **https://gitlab.jsc.fz-juelich.de/jupyter4jsc/training-2024.04-jupyter4hpc**

Project training2412

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Project title	Interactive High-Performance Computing with JupyterLab
Type	Computeproject
Principal Investigator	Jens Henrik Göbbert
Project Admin	Dr. Herwig Zilken
Project Mentor	Jens Henrik Göbbert
Start date	01.04.2024
End date	31.05.2024
Resource class	Training
Address	Forschungszentrum Jülich GmbH Wilhelm-Johnen-Straße 52428 Jülich Germany
Group name	training2412

As PI or PA of the project you are obliged to follow data protection regulations, in particular to maintain confidentiality. That means not to communicate or make data accessible to other persons without authorization by the data provider (even after the end of the project).

Active Budgets

Budget training2412

JUSUF_CPU	Training fixed budget	01.04.24–31.05.24	
Total	64/30,000 core-h		
JUSUF_GPUS	Training fixed budget	01.04.24–31.05.24	
Total	0/30,000 core-h		

Show extended statistics for PI/PAs | Show extended statistics as SC Support | Show extended statistics as Mentor

The jutil tool on the systems can provide extended information about a budget.

Storage Quota

Storage on just

scratch		08.04.24–31.05.24	
0.00/90.00 TiB		1k/4,000k Inodes	
project		08.04.24–31.05.24	
0.00/14.90 TiB		27k/3,000k Inodes	

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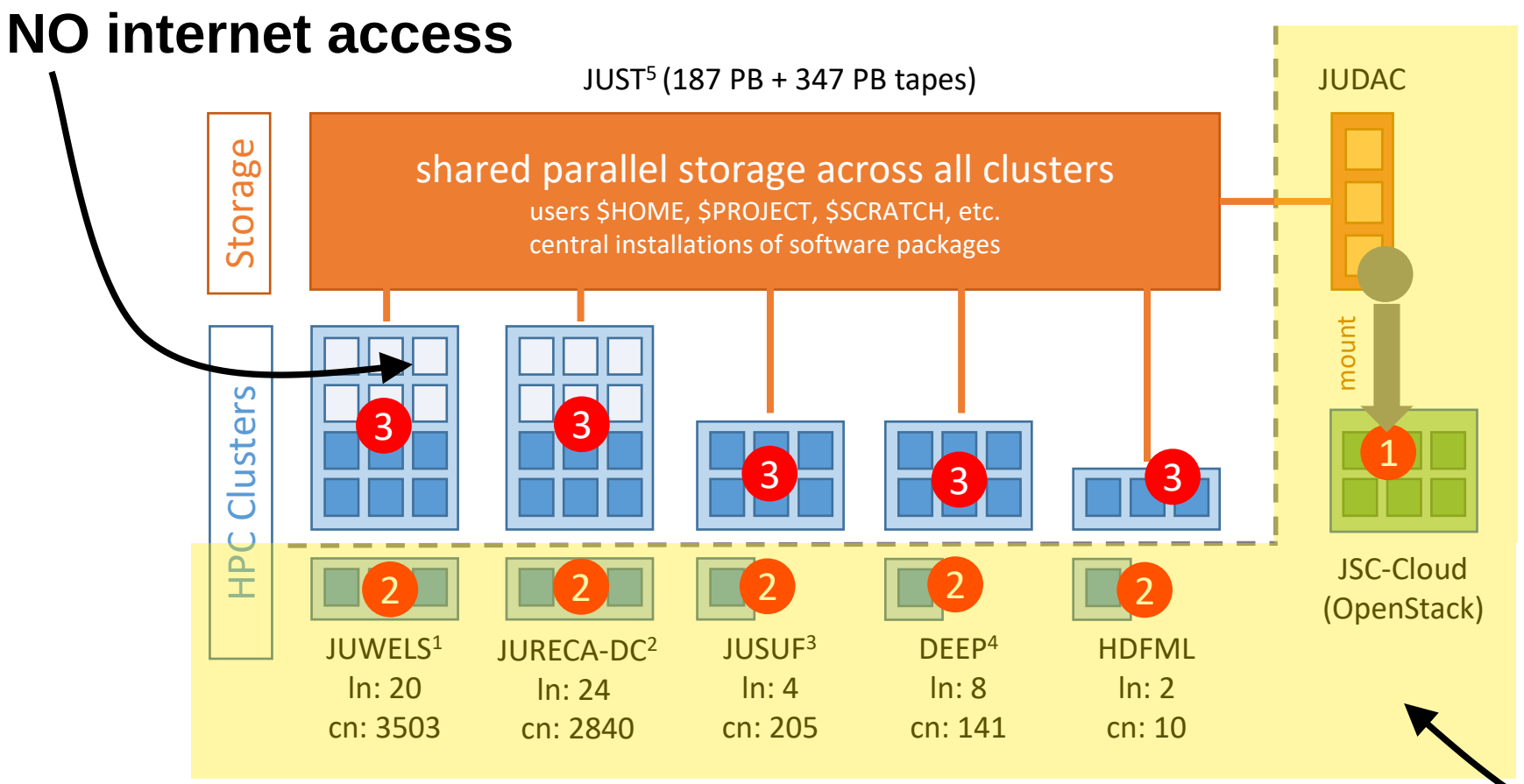
JUPYTERLAB EVERYWHERE



JupyterLab everywhere

1. JupyterLab on cloud
2. JupyterLab on login nodes
3. JupyterLab on compute nodes

no. login nodes = ln
no. compute nodes = cn

[1] https://apps.fz-juelich.de/jsc/hps/juwels/configuration.html
[2] https://apps.fz-juelich.de/jsc/hps/jureca/configuration.html
[3] https://apps.fz-juelich.de/jsc/hps/jusuf/configuration.html
[4] https://www.fz-juelich.de/en/ias/jsc/systems/prototype-systems/deep_system
[5] https://apps.fz-juelich.de/jsc/hps/just/configuration.html

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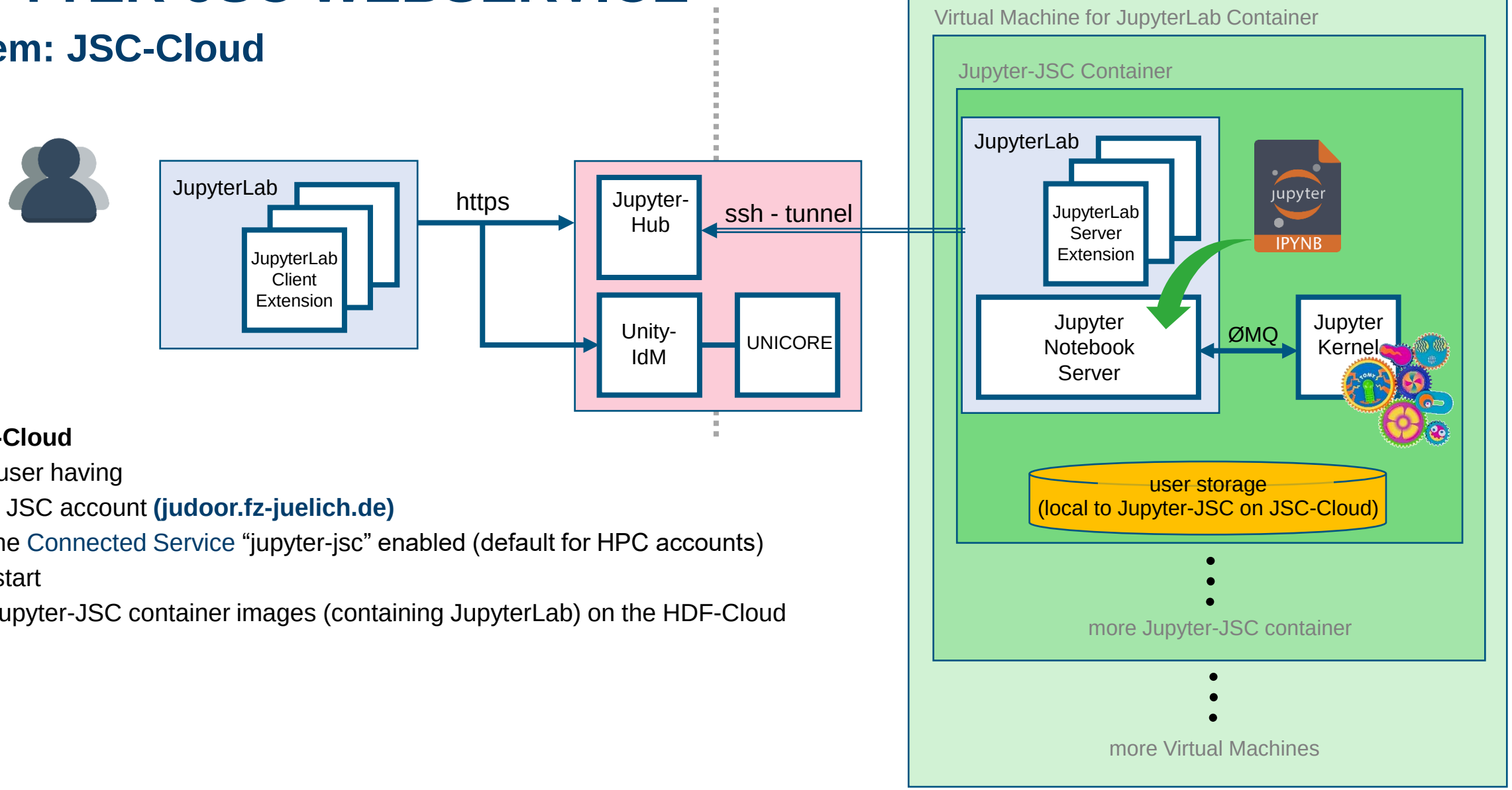
JUPYTER-JSC WEBSERVICE

System: JSC-Cloud



JSC-Cloud

Any user having

- a JSC account **(judoor.fz-juelich.de)**
- the Connected Service “jupyter-jsc” enabled (default for HPC accounts)

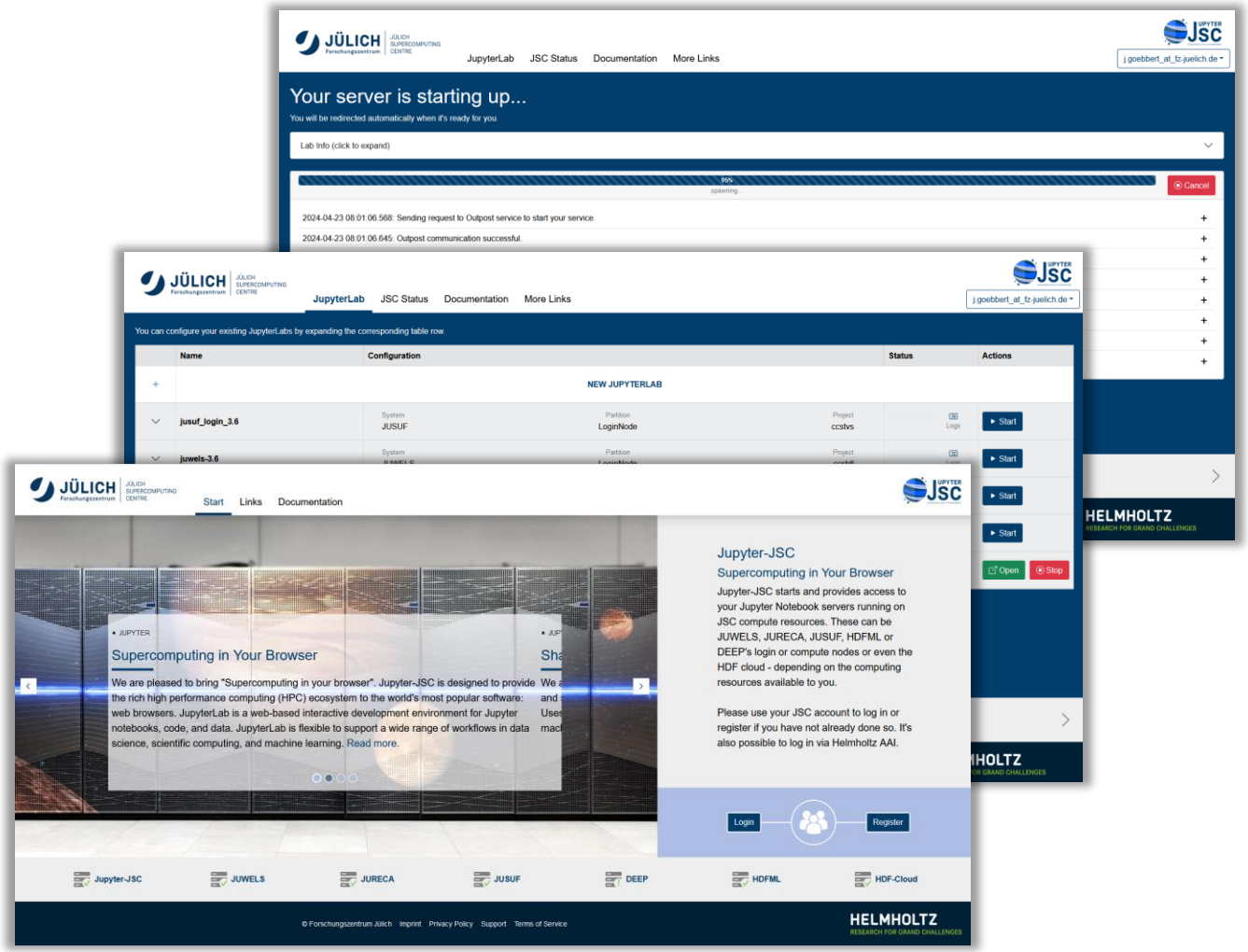
can start

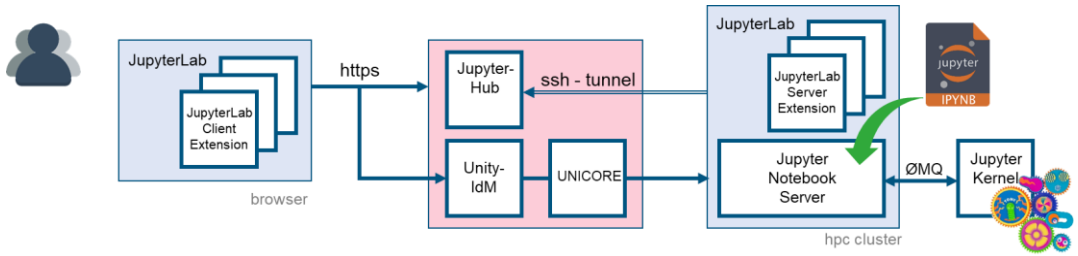
- Jupyter-JSC container images (containing JupyterLab) on the HDF-Cloud

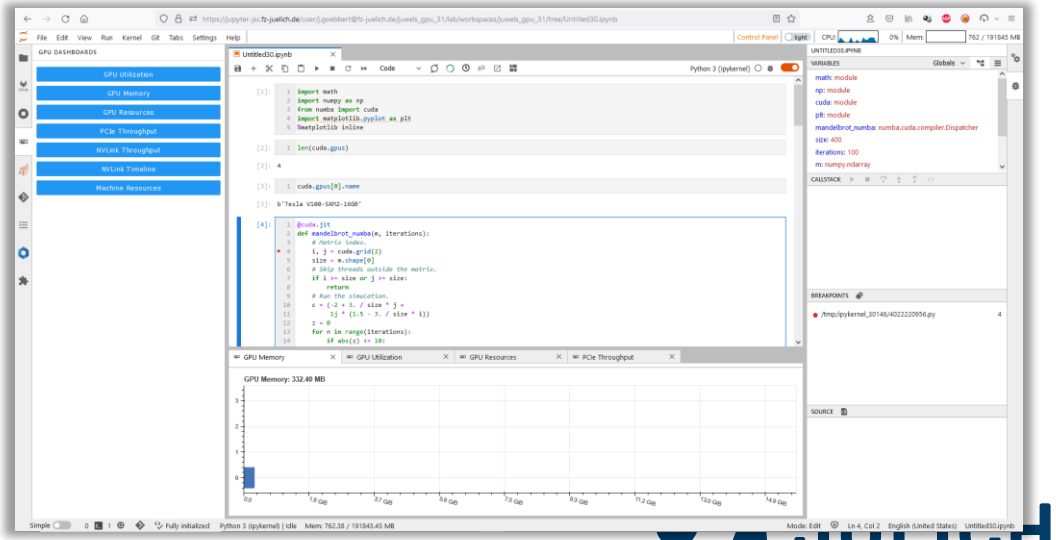
https://apps.fz-juelich.de/jsc/hps/jsccloud/index.html

JUPYTER-JSC WEBSERVICE

Start your JupyterLab







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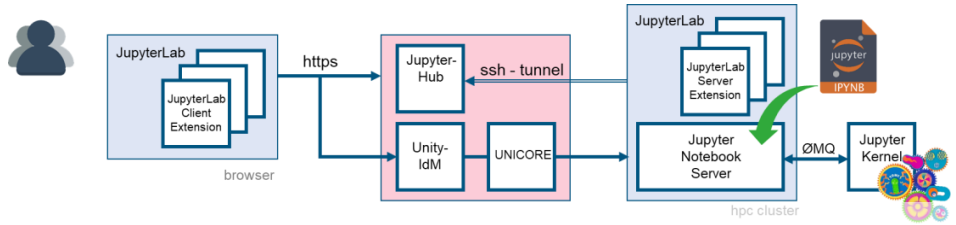
JUPYTER-JSC WEBSERVICE

JupyterLab Configuration



Jupyter-JSC – Configuration

Availabl

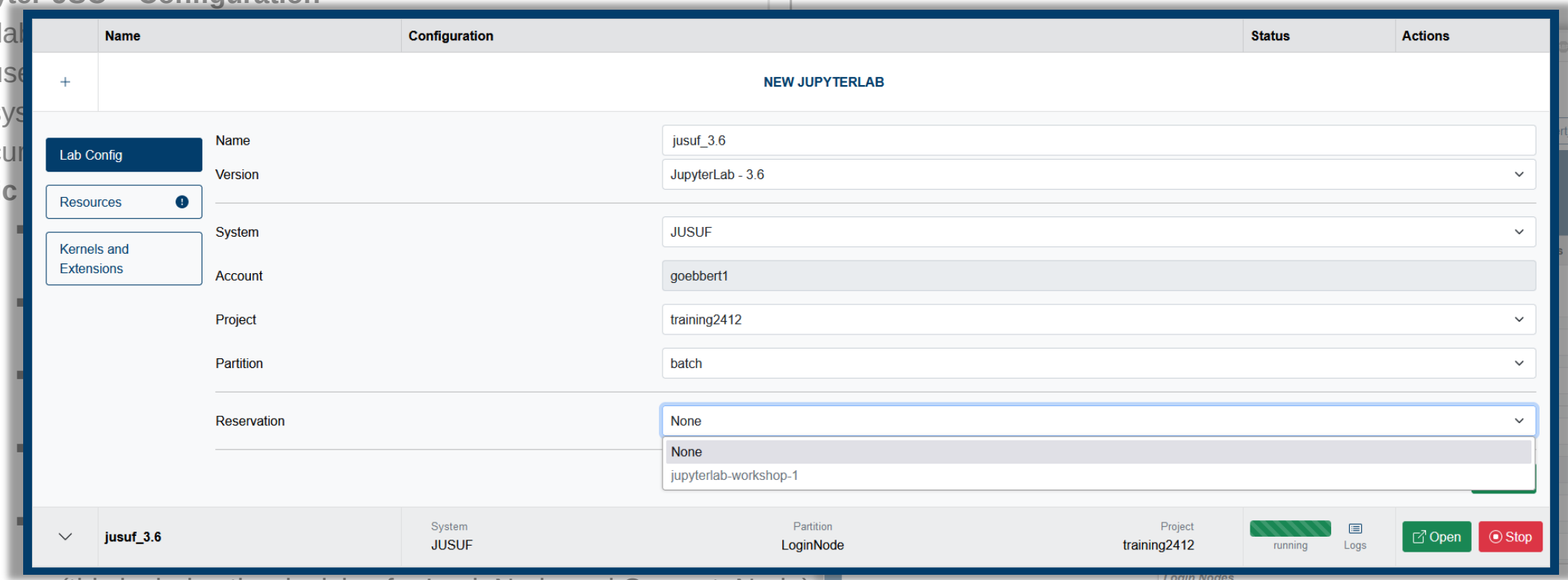
- use
- sys
- cur

Basic

(this includes the decision for LoginNode and ComputeNode)

Extra options

- Partition == compute — Resources
- Kernel and Extensions — non-default JupyterKernel, Extensions, Proxies



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