How to access GPU server

⊙ Status	Completed
👥 Assign	Ⓗ hyosang
☰ epic	
👥 Reviewer	Ⓔ Ezequiel Lopez
☰ Sprint	

GPU server is provided by ARC but RAs should take some steps to get access.

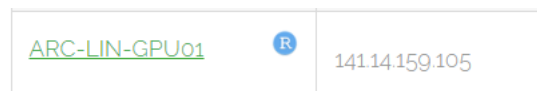- Wiki: https://wiki.mpib-berlin.mpg.de/books/servers/page/access-the-server

- There are two ways to access the GPU server provided by ARC, one is by MPIB devices which are located in RA rooms, and the other is by personal laptop.

Desktop MPIB/ Laptops from MPIB

1. Login with MPIB account

2. Open the server and login with MPIB account

   Link: https://arc-support.mpib-berlin.mpg.de/

   Under the Ubuntu section, find the GPU and click the 'R' icon which directs to RStudio interface.

3. Create a new session - choose editor: RStudio, Jupyter Notebook, …

4. Open your created session and make your own folder

5. Create virtual environment following the **link** method 2 - Step 1,2 and use the **following commands** in Jupyter notebook terminal below the link. But, this might need help from ARC IT manager - Philip Jacob (July 2023). It didn't work after the some attempts made from an RA's side.

   Link: https://docs.posit.co/rsw/integration/jupyter-multiple-python-versions/#method-2-register-an-additional-python-environment-only-for-your-user

   Commands in Jupyter notebook terminal:

```
kim@ARC-LIN-GPU01:~$ ~/venvs/my_environment/bin/jupyter kernelspec list
Available kernels:
python3    /mnt/home/kim/venvs/my_environment/share/jupyter/kernels/python3
py3.7.7    /usr/local/share/jupyter/kernels/py3.7.7
py3.8.10   /usr/local/share/jupyter/kernels/py3.8.10
py3.9.12   /usr/local/share/jupyter/kernels/py3.9.12
kim@ARC-LIN-GPU01:~$ ~/venvs/my_environment/bin/python -m ipykernel install --name my-python-env --display-name "Kim - 1st Custom Python env
Installed kernelspec my-python-env in /mnt/home/kim/.local/share/jupyter/kernels/my-python-env
kim@ARC-LIN-GPU01:~$ ~/venvs/my_environment/bin/jupyter kernelspec list
Available kernels:
my-python-env    /mnt/home/kim/.local/share/jupyter/kernels/my-python-env
python3          /mnt/home/kim/venvs/my_environment/share/jupyter/kernels/python3
py3.7.7          /usr/local/share/jupyter/kernels/py3.7.7
py3.8.10         /usr/local/share/jupyter/kernels/py3.8.10
py3.9.12         /usr/local/share/jupyter/kernels/py3.9.12
kim@ARC-LIN-GPU01:~$
```

6. To install libraries, use the following commands in the **Jupyter notebook terminal:**

   ~venvs/my_environment/bin/pip install YOUR_LIBRARY

Private laptop

1. Supervisors(Predocs, Postdocs, Scientists) should ask IT-service to allow **Azure VDI** for private laptop. Supervisors may open a ticket for the request and share the information with the RA.

2. IT-service will give the link of VDI. Open the link and login with MPIB account.

3. Same environment as using the Desktop MPIB.