1. Job Script for Launching the Jupyter Notebook Job in the Cluster

```
[@login1 ~]$ cat jupyter.sh
#!/bin/bash
#PBS -N Notebook_job
#PBS -l select=1:ncpus=2:ngpus=1
#PBS -l walltime=24:00:00
#PBS -q serialq
#PBS -j oe

cd $PBS_O_WORKDIR

NOTEBOOK_LOGFILE=jupyterlog.out

# get tunneling info
node=$(hostname -s)
user=$(whoami)
cluster=“AA.BB.CC.D“                # Enter cluster IP address
port=XXXX                           # Enter a port number like 9000
export JUPYTER_PORT=XXXX
### --After job submission open the port_forwarding.txt file for port forwarding details --###
echo -e "
Run the following command from your local machine terminal with local machine port YYYY:
$ ssh-N -f -L YYYY:${node}:${port} ${user}@${cluster}
" > port_forwarding.txt

module load anaconda/3
# launch the Jupyter Notebook run
jupyter notebook --no-browser --ip=${node} --port=${port} > ${NOTEBOOK_LOGFILE} 2>&1
```

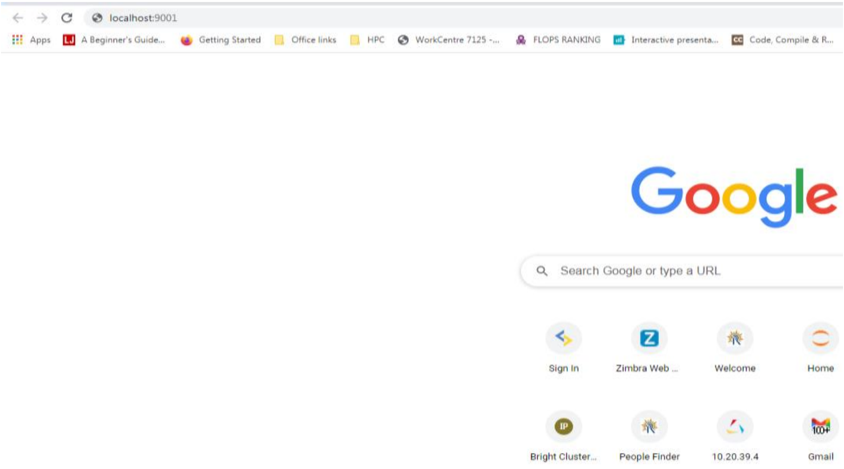
2. Submitting the Job

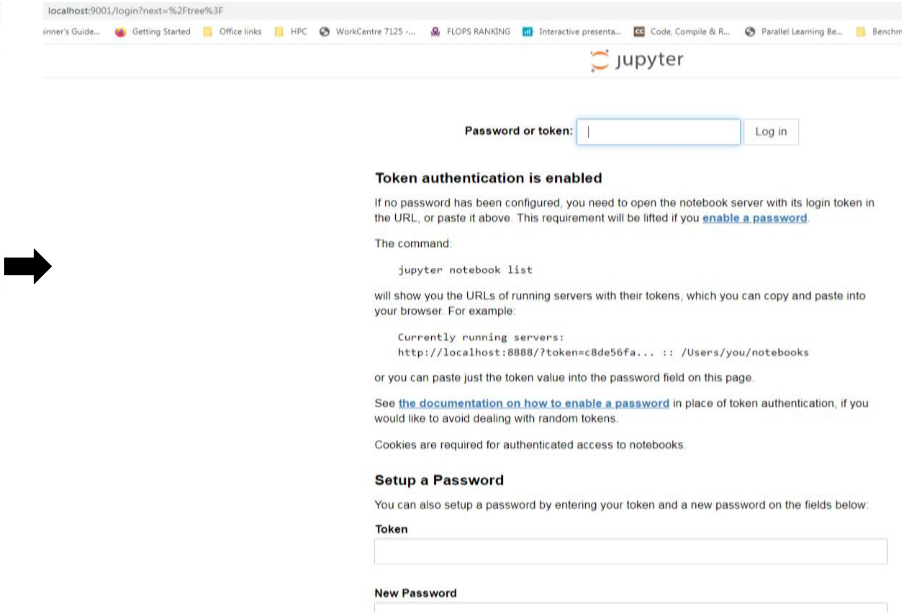
```
[@login1 ~]$ qsub jupyter.sh
# A job id should be generated like 136407.cluster
```

3. Port forwarding via ssh to local machine port no. YYYY

```
# Check the "port_forwarding.txt" file made after the job submission
# Check the compute node, port, username and cluster name in the file.
# You can copy paste the command from "port_forwarding.txt" file
# The command syntax will be like the following:
[@localhost]$ ssh -N -f -L YYYY:cn001:XXXX username@AA.BB.CC.D
```

4. Open web browser in local machine and type http://localhost:YYYY





Password or token: |

Token authentication is enabled

If no password has been configured, you need to open the notebook server with its login token in the URL, or paste it above. This requirement will be lifted if you enable a password.

The command:

```
jupyter notebook list
```

will show you the URLs of running servers with their tokens, which you can copy and paste into your browser. For example:

```
Currently running servers:
http://localhost:8888/?token=c8de56fa... :: /Users/you/notebooks
```

or you can paste just the token value into the password field on this page.

See the documentation on how to enable a password in place of token authentication, if you would like to avoid dealing with random tokens.

Cookies are required for authenticated access to notebooks.

Setup a Password

You can also setup a password by entering your token and a new password on the fields below:

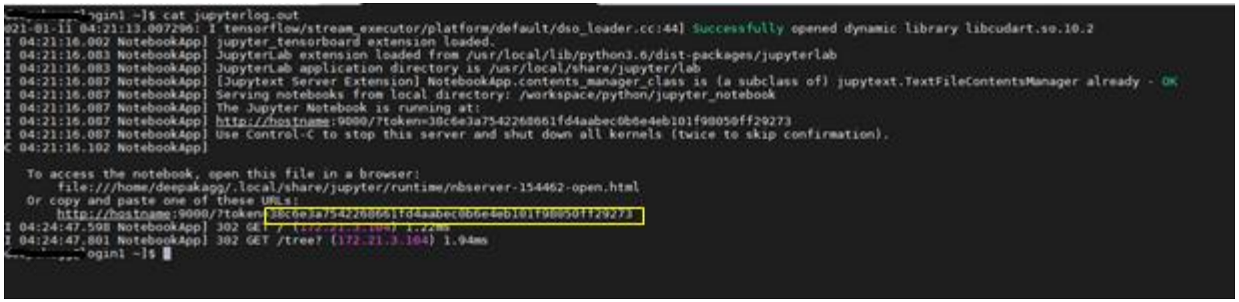
Token

New Password

This will ask for the token which is available in the jupyterlog.out file in your working directory on the cluster.

5. To get the token from the jupyterlog.out file in the cluster working directory

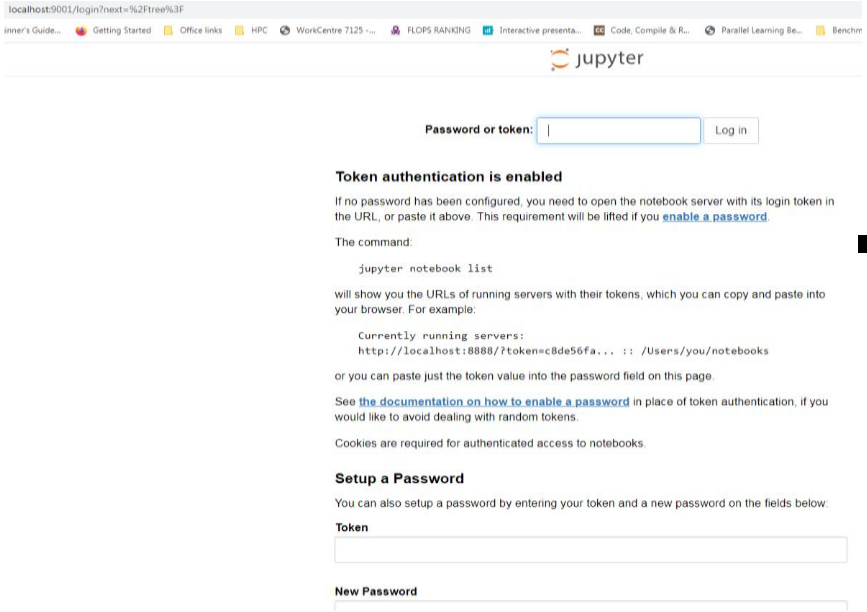
```
[@login1 ~]$ tailf jupyterlog.out
```



```
[redacted]ogin1 ~]$ cat jupyterlog.out
021-01-11 04:21:13.007296: I tensorflow/stream_executor/platform/default/dso_loader.cc:44] Successfully opened dynamic library libcudart.so.10.2
I 04:21:16.002 NotebookApp] jupyter_tensorboard extension loaded.
I 04:21:16.083 NotebookApp] JupyterLab extension loaded from /usr/local/lib/python3.6/dist-packages/jupyterlab
I 04:21:16.083 NotebookApp] JupyterLab application directory is /usr/local/share/jupyter/lab
I 04:21:16.087 NotebookApp] [Jupytext Server Extension] NotebookApp.contents_manager_class is (a subclass of) jupytext.TextFileContentsManager already - OK
I 04:21:16.087 NotebookApp] Serving notebooks from local directory: /workspace/python/jupyter_notebook
I 04:21:16.087 NotebookApp] The Jupyter Notebook is running at:
I 04:21:16.087 NotebookApp] http://hostname:9000/?token=38c6e3a7542268661fd4aabec0b6e4eb101f98050ff29273
I 04:21:16.087 NotebookApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
C 04:21:16.102 NotebookApp]

    To access the notebook, open this file in a browser:
        file:///home/deepakagg/.local/share/jupyter/runtime/nbserver-154462-open.html
    Or copy and paste one of these URLs:
        http://hostname:9000/?token=38c6e3a7542268661fd4aabec0b6e4eb101f98050ff29273
I 04:24:47.598 NotebookApp] 302 GET / (172.21.3.104) 1.22ms
I 04:24:47.801 NotebookApp] 302 GET /tree? (172.21.3.104) 1.94ms
[redacted]ogin1 ~]$ 
```

#Just copy and paste the token without the equal sign in the token window in browser.



Password or token: | Log in

Token authentication is enabled

If no password has been configured, you need to open the notebook server with its login token in the URL, or paste it above. This requirement will be lifted if you enable a password.

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```
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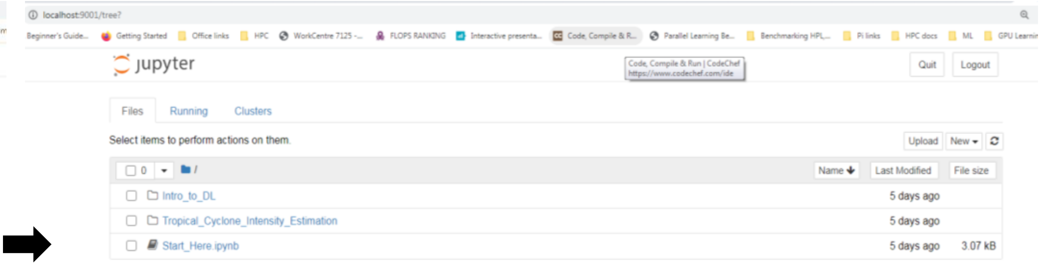

Select items to perform actions on them.

	Name	Last Modified	File size
□ 0	/		
□	Intro_to_DL	5 days ago	
□	Tropical_Cyclone_Intensity_Estimation	5 days ago	
□	Start_Here.ipynb	5 days ago	3.07 kB