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

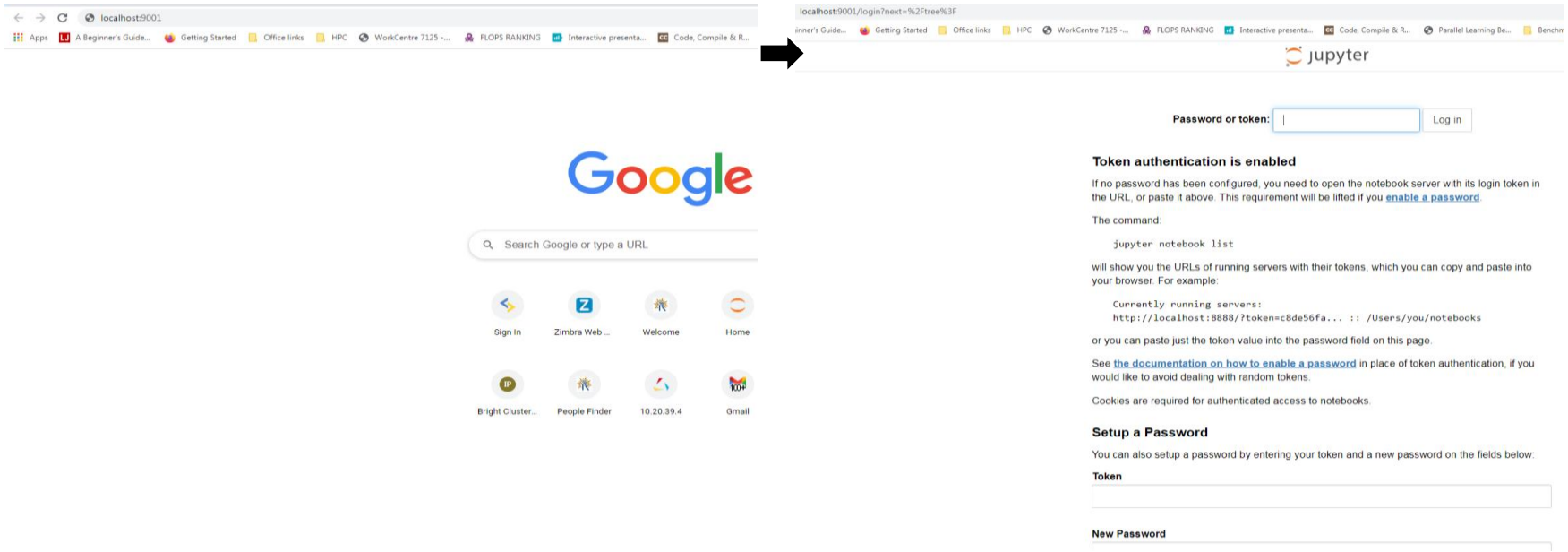
```
[@login1 ~]$ qsub jupyter.sh
# A job id should be generated like 136407.cluster
```

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:node:XXXX username@AA.BB.CC.D
```

XXXX: Cluster Port No. [like 8888 (default port) or 9000 or any other port number not in use in the cluster]
YYYY: Local Machine Port No. [like 8888 or 9000 or any other port number not in use in the local machine]
node: Compute node name [like cn001 or gn01 or any other compute node on which the job is submitted]
username: Your HPC Username [like ganesh]
AA.BB.CC.D: Cluster IP Address [like 10.20.40.8]

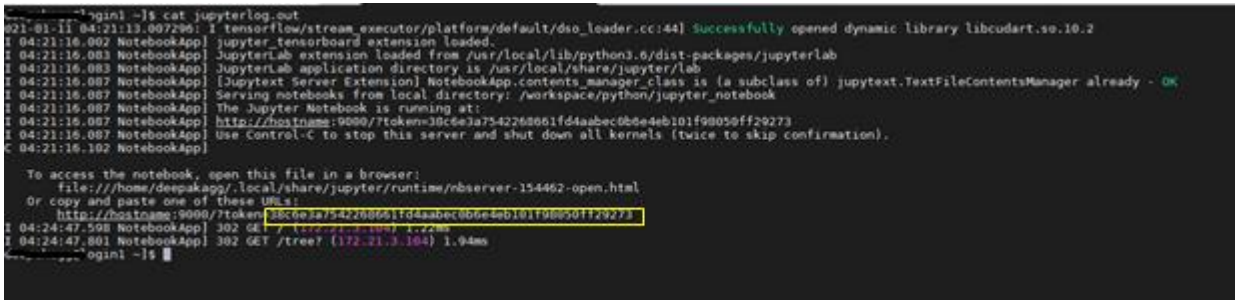
4. Open web browser in local machine and type http://localhost:YYYY



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
```



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