

JOB SUBMISSION ASSIGNMENT

1. Try following commands
2. Read the documentation of commands
 - a. `man squeue`
 - b. `man sbatch`
 - c. `man sinfo`
 - d. `man scancel`
 - e. `Sinfo --help`
 - f. `Sinfo --usage`
 - g. Similarly for other commands
3. Practice the command to gather cluster info
 - a. Save the output of the command in a file `cmd_output1.txt`
 - b. Observer the header and understand the meaning of each column
 - c. Output the information in node-oriented fashion
 - d. How many PARTITION can you observer
 - e. List the details of the 'standard' partition.
 - f. List the details of the 'hm' partition.
 - g. List the details of node state.
 - h. List the down nodes
 - i. List the reservation details
 - j. Observe the start time, end time and node reserved
4. List all the jobs submitted on cluster
 - a. List all the jobs submitted by your username,
 - b. List all the running jobs
 - c. List all the pending jobs
 - d. List the running jobs and pending jobs.
 - e. List the details of 2 jobs ids in a single command
 - f. List all the jobs of the partition 'standard'
 - g. List all the jobs of the partition 'cpu'
 - h. List both of the above in a single command
 - i. List the jobs by its jobname
 - j. Similarly, you can submit 2 jobs with 2 different name and check the name in the queue

5. How to we know the resources consumed or used by the jobs
 - a. What is the command to learn about accounting information of the job
 - b. Or which is the command for monitoring job and accounting data available with slurm
 - c. Display job id, job name, partition, account, number of allocated cpus, job state, and job exit codes for recent jobs. Save it in a file
 - d. Display job id, job state, job exit code for recent jobs.
 - e. Display the allocations of a job
 - f. Display elapsed time, job name, number of requested CPUs, and memory requested of a job
 - g. List all the jobs, completed or failed jobs from user user_name from date YYYY-MM-DD(eg 2024-02-01)
6. What does scontrol command shows
 - a. List more verbose in verbose information about your job, by using the job id
7. What does scontrol command shows
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8. What is s job submission script.
9. Write a script that shows jobname as test_sample in job

1. Analyze the following 1.sh

```
#!/bin/bash
#SBATCH --job-name=test
Echo hostname
```

What is the name of the job.

How to submit this file to SLURM

```
$sbatch 1.sh
```

What does sbatch command do and return?

List the jobid returned

List the command to check the status of jobid?

What is the status of the jobid.

Once the job is completed, check the output file. What is written in it.

Change the name of job from test1_yourname

2. Change the name of job from to test1_yourname. And repeat all the above steps steps of 1
3. Add the directive to mention the error file. And repeat all the above steps steps of 1
4. Add the directive to mention the dynamic output and error files. And repeat all the above steps of 1

5. Analyze the following 2.sh

```
#!/bin/bash  
#SBATCH --job-name=test  
srun hostname
```

And repeat all the above steps of 1. Observe the difference in output and error file.