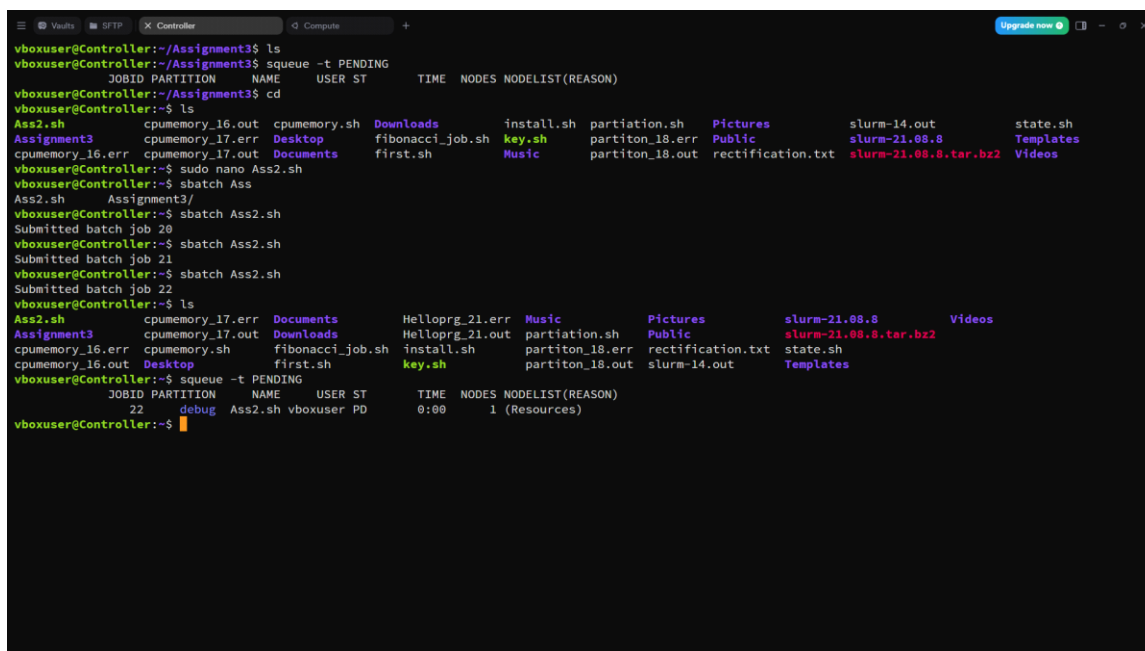


Assignment No 3

Name Vaishali Karale

PRN: 240840127019

1. You have multiple jobs in the queue, and you want to list only the jobs that are currently pending (not running). How can you do this?



```
vboxuser@Controller:~/Assignment3$ ls
vboxuser@Controller:~/Assignment3$ squeue -t PENDING
vboxuser@Controller:~/Assignment3$ cd
vboxuser@Controller:~$ ls
Ass2.sh          cpumemory_16.out  cpumemory.sh      Downloads        install.sh        partiation.sh     Pictures          slurm-14.out     state.sh
Assignment3      cpumemory_17.err  Desktop          fibonacci_job.sh key.sh            partiton_18.err   Public           slurm-21.08.8   Templates
cpumemory_16.err cpumemory_17.out  Documents        first.sh         Music             partiton_18.out   rectification.txt slurm-21.08.8.tar.bz2 Videos
vboxuser@Controller:~$ sudo nano Ass2.sh
vboxuser@Controller:~$ sbatch Ass
Ass2.sh          Assignment3/
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 20
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 21
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 22
vboxuser@Controller:~$ ls
Ass2.sh          cpumemory_17.err  Documents        Helloprg_21.err  Music             Pictures          slurm-21.08.8     Videos
Assignment3      cpumemory_17.out  Desktop          Helloprg_21.out  partiation.sh     Public           slurm-21.08.8.tar.bz2
cpumemory_16.err cpumemory_16.out  fibonacci_job.sh install.sh        partiton_18.err   rectification.txt state.sh
cpumemory_16.out Desktop          first.sh         key.sh           partiton_18.out  slurm-14.out     Templates
vboxuser@Controller:~$ squeue -t PENDING
vboxuser@Controller:~$
```

JOBID	PARTITION	NAME	USER	ST	TIME	NODES	NODELIST(REASON)
22	debug	Ass2.sh	vboxuser	PD	0:00	1	(Resources)

2. You want to monitor the resource usage (e.g., CPU, memory) of a running job. What command can you use to monitor job resource usage in real-time?

```
vboxuser@Controller:~/Assignment3$ cd
vboxuser@Controller:~$ ls
Ass2.sh      cpumemory_16.out  cpumemory.sh  Downloads  fibonacci_job.sh  install.sh  partition.sh  Pictures  slurm-14.out  state.sh
Assignment3  cpumemory_17.err  Desktop      fibonacc_i_job.sh  key.sh         partiton_18.err  rectification.txt  slurm-21.08.8  Templates
cpumemory_16.err  cpumemory_17.out  Documents    first.sh    Music          partiton_18.out  slurm-21.08.8.tar.bz2  Videos
vboxuser@Controller:~$ sudo nano Ass2.sh
vboxuser@Controller:~$ sbatch Ass
Ass2.sh      Assignment3/
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 20
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 21
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 22
vboxuser@Controller:~$ ls
Ass2.sh      cpumemory_17.err  Documents    Helloprg_21.err  Music          Pictures      slurm-21.08.8  Videos
Assignment3  cpumemory_17.out  Downloads    Helloprg_21.out  partiation.sh  Public       slurm-21.08.8.tar.bz2
cpumemory_16.err  cpumemory.sh      fibonacc_i_job.sh  install.sh       partiton_18.err  rectification.txt  state.sh
cpumemory_16.out  Desktop          first.sh        key.sh          partiton_18.out  slurm-14.out    Templates
vboxuser@Controller:~$ squeue -t PENDING
JOBID PARTITION  NAME      USER ST      TIME  NODES NODELIST(REASON)
22      debug      Ass2.sh   vboxuser PD      0:00   1      (Resources)
vboxuser@Controller:~$ sstat -j <job-id> batch
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sstat -j 22 batch
sstat: fatal: Bad job/step specified: batch
vboxuser@Controller:~$ sstat -j 21 batch
sstat: fatal: Bad job/step specified: batch
vboxuser@Controller:~$ squeue
JOBID PARTITION  NAME      USER ST      TIME  NODES NODELIST(REASON)
22      debug      Ass2.sh   vboxuser PD      0:00   1      (Resources)
20      debug      Ass2.sh   vboxuser R       2:20   1      Compute
21      debug      Ass2.sh   vboxuser R       2:17   1      Controller
vboxuser@Controller:~$ sacct -j <job-id> --format=JobID,State,ExitCode
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sacct -j 22
JobID      JobName  Partition  Account  AllocCPUS  State  ExitCode
-----
22         Ass2.sh  debug      vboxuser 1          PENDING 0:0
vboxuser@Controller:~$
```

3. After a job finishes, you want to check its exit code to know whether it ran successfully. How do you check the exit code of a completed job?

```
Ass2.sh      Assignment3/
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 20
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 21
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 22
vboxuser@Controller:~$ ls
Ass2.sh      cpumemory_17.err  Documents    Helloprg_21.err  Music          Pictures      slurm-21.08.8  Videos
Assignment3  cpumemory_17.out  Downloads    Helloprg_21.out  partiation.sh  Public       slurm-21.08.8.tar.bz2
cpumemory_16.err  cpumemory.sh      fibonacc_i_job.sh  install.sh       partiton_18.err  rectification.txt  state.sh
cpumemory_16.out  Desktop          first.sh        key.sh          partiton_18.out  slurm-14.out    Templates
vboxuser@Controller:~$ squeue -t PENDING
JOBID PARTITION  NAME      USER ST      TIME  NODES NODELIST(REASON)
22      debug      Ass2.sh   vboxuser PD      0:00   1      (Resources)
vboxuser@Controller:~$ sstat -j <job-id> batch
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sstat -j 22 batch
sstat: fatal: Bad job/step specified: batch
vboxuser@Controller:~$ sstat -j 21 batch
sstat: fatal: Bad job/step specified: batch
vboxuser@Controller:~$ squeue
JOBID PARTITION  NAME      USER ST      TIME  NODES NODELIST(REASON)
22      debug      Ass2.sh   vboxuser PD      0:00   1      (Resources)
20      debug      Ass2.sh   vboxuser R       2:20   1      Compute
21      debug      Ass2.sh   vboxuser R       2:17   1      Controller
vboxuser@Controller:~$ sacct -j <job-id> --format=JobID,State,ExitCode
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sacct -j 22
JobID      JobName  Partition  Account  AllocCPUS  State  ExitCode
-----
22         Ass2.sh  debug      vboxuser 1          PENDING 0:0
vboxuser@Controller:~$ sacct -j 12345 --format=JobID,State,ExitCode
JobID      State  ExitCode
-----
vboxuser@Controller:~$ sacct -j 22 --format=JobID,State,ExitCode
JobID      State  ExitCode
-----
22         PENDING 0:0
vboxuser@Controller:~$
```

```
Ass2.sh Assignment3/
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 20
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 21
vboxuser@Controller:~$ sbatch Ass2.sh
Submitted batch job 22
vboxuser@Controller:~$ ls
Ass2.sh          cpumemory_17.err  Documents          Helloprg_21.err  Music             Pictures           slurm-21.00.8      Videos
Assignment3      cpumemory_17.out  Downloads          Helloprg_21.out  partition.sh      Public             slurm-21.00.8.tar.bz2
cpumemory_16.err cpumemory.sh      fibonacci_job.sh  install.sh       partiton_18.err  rectification.txt  state.sh
cpumemory_16.out Desktop          first.sh          key.sh           partiton_18.out  slurm-14.out       Templates
vboxuser@Controller:~$ squeue -t PENDING
      JOBID PARTITION  NAME      USER ST       TIME  NODES NODELIST(REASON)
      22      debug    Ass2.sh   vboxuser PD      0:00      1 (Resources)
vboxuser@Controller:~$ sstat -j <job-id> batch
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sstat -j 22 batch
sstat: fatal: Bad job/step specified: batch
vboxuser@Controller:~$ sstat -j 21 batch
sstat: fatal: Bad job/step specified: batch
vboxuser@Controller:~$ squeue
      JOBID PARTITION  NAME      USER ST       TIME  NODES NODELIST(REASON)
      22      debug    Ass2.sh   vboxuser PD      0:00      1 (Resources)
      20      debug    Ass2.sh   vboxuser R       2:20      1 Compute
      21      debug    Ass2.sh   vboxuser R       2:17      1 Controller
vboxuser@Controller:~$ sacct -j <job-id> --format=JobID,State,ExitCode
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sacct -j 22
JobID      JobName  Partition  Account  AllocCPUS  State ExitCode
-----
22         Ass2.sh  debug      1         1  PENDING    0:0
vboxuser@Controller:~$ sacct -j 12345 --format=JobID,State,ExitCode
JobID      State ExitCode
-----
22         PENDING 0:0
vboxuser@Controller:~$
```