

Assignment 4

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1. See Detailed Information about a Finished Job (Resource Usage and Exit Status)

```
vboxuser@Controller:~/Assignment3$ ls
vboxuser@Controller:~/Assignment3$ squeue -t PENDING
vboxuser@Controller:~/Assignment3$ cd
vboxuser@Controller:~/Assignment3$ ls
Ass2.sh      cpumemory_16.out  cpumemory.sh  Downloads  install.sh  partation.sh  Pictures  slurm-14.out  state.sh
Assignment3  cpumemory_17.err  Desktop       fibonacci_job.sh  key.sh      partiton_18.err  Public   slurm-21.00.8  Templates
cpumemory_16.err  cpumemory_17.out  Documents     first.sh    Music       partiton_18.out  rectification.txt  slurm-21.00.8.tar.bz2  Videos
vboxuser@Controller:~/Assignment3$ sudo nano Ass2.sh
vboxuser@Controller:~/Assignment3$ sbatch Ass2.sh
vboxuser@Controller:~/Assignment3$ sbatch Ass2.sh
Submitted batch job 20
vboxuser@Controller:~/Assignment3$ sbatch Ass2.sh
Submitted batch job 21
vboxuser@Controller:~/Assignment3$ sbatch Ass2.sh
Submitted batch job 22
vboxuser@Controller:~/Assignment3$ 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  partation.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:~/Assignment3$ squeue -t PENDING
vboxuser@Controller:~/Assignment3$
vboxuser@Controller:~/Assignment3$
```

```
vboxuser@Controller:~/Assignment3$ cd
vboxuser@Controller:~$ ls
Ass2.sh      cpumemory_16.out  cpumemory.sh  Downloads  fibonacci_job.sh  install.sh  partation.sh  Pictures  slurm-14.out  state.sh
Assignment3  cpumemory_17.err  Desktop      fibonacci_job.sh  key.sh          Music      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  partation.sh  Public      slurm-21.08.8.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 PENDING 0:0
vboxuser@Controller:~$
```

2. Submit a Job to Run on a Specific Node

```
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  partation.sh  Public      slurm-21.08.8.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 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:~$
```

```
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:~$ sacct -j 22 --format=JobID,State,ExitCode
JobID State ExitCode
-----
22 PENDING 0:0
vboxuser@Controller:~$ sacct -j <job-id> --format=JobID,State,ExitCode,AllocCPUS,Elapsed,TotalCPU,MaxRSS
-bash: job-id: No such file or directory
vboxuser@Controller:~$ sacct -j 22 --format=JobID,State,ExitCode,AllocCPUS,Elapsed,TotalCPU,MaxRSS
JobID State ExitCode AllocCPUS Elapsed TotalCPU MaxRSS
-----
22 PENDING 0:0 1 00:00:00 00:00:00
vboxuser@Controller:~$ sacct -j 21 --format=JobID,State,ExitCode,AllocCPUS,Elapsed,TotalCPU,MaxRSS
JobID State ExitCode AllocCPUS Elapsed TotalCPU MaxRSS
-----
21 RUNNING 0:0 1 00:09:20 00:00:00
21.batch RUNNING 0:0 1 00:09:20 00:00:00
vboxuser@Controller:~$
```

3. Set a Maximum Runtime for Your Job to 3 Hours

```

vboxuser@Controller:~$ sinfo
PARTITION AVAIL  TIMELIMIT  NODES  STATE NODELIST
debug*    up      infinite    1    alloc Controller
debug*    up      infinite    1    down  Compute
vboxuser@Controller:~$ scontrol update nodename=<nodename> state=UP
-bash: nodename: No such file or directory
vboxuser@Controller:~$ scontrol update nodename=Compute state=idle
vboxuser@Controller:~$ sinfo
PARTITION AVAIL  TIMELIMIT  NODES  STATE NODELIST
debug*    up      infinite    1    alloc Controller
debug*    up      infinite    1    idle  Compute
vboxuser@Controller:~$ squeue
          JOBID PARTITION     NAME     USER ST       TIME  NODES NODELIST(REASON)
          22      debug    Ass2.sh  vboxuser R        17:47      1    Controller
vboxuser@Controller:~$ node name is sacct -j 22 --format=JobID,State,ExitCode,Elapsed,TotalCPU,MaxRSS

Command 'node' not found, but can be installed with:

apt install nodejs
Please ask your administrator.

vboxuser@Controller:~$ sacct -j 22 --format=JobID,State,ExitCode,Elapsed,TotalCPU,MaxRSS
JobID      State ExitCode   Elapsed    TotalCPU    MaxRSS
-----
22         RUNNING 0:0        00:19:32    00:00:00
22.batch   RUNNING 0:0        00:19:32    00:00:00
vboxuser@Controller:~$ sbatch -w Compute Ass2.sh
Submitted batch job 23
vboxuser@Controller:~$ squeue
          JOBID PARTITION     NAME     USER ST       TIME  NODES NODELIST(REASON)
          22      debug    Ass2.sh  vboxuser R        21:51      1    Controller
          23      debug    Ass2.sh  vboxuser R         0:05      1    Compute
vboxuser@Controller:~$
```

```

debug*    up      infinite    1    alloc Controller
debug*    up      infinite    1    down  Compute
vboxuser@Controller:~$ scontrol update nodename=<nodename> state=UP
-bash: nodename: No such file or directory
vboxuser@Controller:~$ scontrol update nodename=Compute state=idle
vboxuser@Controller:~$ sinfo
PARTITION AVAIL  TIMELIMIT  NODES  STATE NODELIST
debug*    up      infinite    1    alloc Controller
debug*    up      infinite    1    idle  Compute
vboxuser@Controller:~$ squeue
          JOBID PARTITION     NAME     USER ST       TIME  NODES NODELIST(REASON)
          22      debug    Ass2.sh  vboxuser R        17:47      1    Controller
vboxuser@Controller:~$ node name is sacct -j 22 --format=JobID,State,ExitCode,Elapsed,TotalCPU,MaxRSS

Command 'node' not found, but can be installed with:

apt install nodejs
Please ask your administrator.

vboxuser@Controller:~$ sacct -j 22 --format=JobID,State,ExitCode,Elapsed,TotalCPU,MaxRSS
JobID      State ExitCode   Elapsed    TotalCPU    MaxRSS
-----
22         RUNNING 0:0        00:19:32    00:00:00
22.batch   RUNNING 0:0        00:19:32    00:00:00
vboxuser@Controller:~$ sbatch -w Compute Ass2.sh
Submitted batch job 23
vboxuser@Controller:~$ squeue
          JOBID PARTITION     NAME     USER ST       TIME  NODES NODELIST(REASON)
          22      debug    Ass2.sh  vboxuser R        21:51      1    Controller
          23      debug    Ass2.sh  vboxuser R         0:05      1    Compute
vboxuser@Controller:~$ sbatch --time=03:00:00 Ass2.sh
Submitted batch job 24
vboxuser@Controller:~$ qu
quirks-handler quote
vboxuser@Controller:~$ squeue
          JOBID PARTITION     NAME     USER ST       TIME  NODES NODELIST(REASON)
          24      debug    Ass2.sh  vboxuser PD         0:00      1 (Resources)
          22      debug    Ass2.sh  vboxuser R        22:47      1    Controller
          23      debug    Ass2.sh  vboxuser R         1:01      1    Compute
vboxuser@Controller:~$
```

