



### Sample Slurm Script:

```
#!/bin/bash
#SBATCH --job-name='my-job'    # <- Job name
#SBATCH -n 32                  # <- Request 32 cores
#SBATCH -t 2-04:30:00          # <- Max runtime: 2 days, 4.5 hours
#SBATCH -A genacc_q            # <- genacc_q Slurm account
#SBATCH --mem-per-cpu=3.9G     # <- Allocate memory per CPU
#SBATCH -N 1                   # <- Request 1 compute node

module load gnu                # <- Load the environment module
srun <my_executable>           # <- Run the executable
```

Slurm Script Generator: <https://manage.rcc.fsu.edu/ssg>

Official Slurm website: <https://slurm.schedmd.com/sbatch.html>

FSU documentation: <https://docs.rcc.fsu.edu/hpc/slurm-job-reference/>

## Submitting Jobs

Submit a job to the Slurm Scheduler:

```
$ sbatch myscript.sh
Submitted batch job 1234567
```

Check all job status (pending or running)

```
$ squeue --me
```

Cancel job:

```
$ scancel 1234567
```

View running job status:

```
$ sstat -j 1234567
```

### General Access Slurm Accounts / Queues / Partitions

| Name      | Max Job Time | Purpose            |
|-----------|--------------|--------------------|
| genacc_q  | 14 days      | Default account    |
| condor    | 90 days      | Long jobs / No MPI |
| backfill  | 4 hours      | Short Jobs         |
| backfill2 | 4 hours      | Preemption Enabled |
| quicktest | 10 min       | For quick testing  |

## Useful Commands

Connect to the HPC

```
$ ssh <FSU_ID>@hpc-login.rcc.fsu.edu
```

Display user & volume storage

```
$ rcctool my:storage
```

View my recent & current jobs

```
$ rcctool my:jobs
```

View my Slurm accounts / queues / partitions

```
$ rcctool my:partitions
```

Display node states in a Slurm account / queue / partition

```
$ rcctool my:partitions <partition> --nodes
```

Efficiency statistics for completed jobs

```
$ seff <job_id>
```

Display detailed job info (any job status)

```
$ rcctool job:inspect <job_id>
```

List all 'rcctool' commands

```
$ rcctool list
```

## Job States

| Code | State       | Meaning   |
|------|-------------|---|
| PD   | Pending     | Waiting for resources to become available.      |
| CF   | Configuring | Job is being set up on compute nodes.           |
| R    | Running     | Job is currently executing.                     |
| CG   | Completing  | Job is wrapping up and cleaning resources.      |
| PR   | Preempted   | Job was suspended to prioritize another job.    |
| S    | Suspended   | Job was manually or system-suspended.           |
| TO   | Timeout     | Job exceeded the time limit and was terminated. |
| F    | Failed      | Job encountered an error and failed.            |
| NF   | Node Failed | Node failure caused job to stop.                |
| CA   | Cancelled   | Job was manually or automatically cancelled.    |