

Name: Michael Gohde

GitHub Link: <https://github.com/mgohde/CSCI4448projectmgohde>

Title: ProcMgr

Description: I'd like to create something generally similar to SLURM or related projects, namely a process and/or task scheduler that can run jobs with various resource requirements across nodes in a cluster.

Actors: I expect this system to have two types of actors: administrators and users. Administrators form a superset of users, as they can do everything users may in addition to directly setting various parameters related to how jobs are scheduled, creating users, etc. Users submit jobs to be handled and executed on the platform.

Functionality:

1. Administrators may create users
2. Administrators may take nodes offline or bring them online
3. Users may submit jobs for execution
4. Users may list their currently pending or executing jobs
5. Users may cancel any job that they "own" at any time
6. Administrators may list any pending or executing job
7. Administrators may cancel any job at any time

Stretch Functionality:

8. Administrators may view live resource utilization for any job
9. Users may view live resource utilization for their job.