Slide 10 - ran yum "search munge" and "sudo yum install munge munge-devel" with no issue

Slide 10 - ran "getent passwd munge", got "munge:x:987:985:" instead of "munge:x:987:987" like in the slides

Slide 11 - ran "sudo create-munge-key" and "sudo Is /etc/munge" with no issues

Slide 12 - ran "sudo systematl enable munge" with no issues

Slide 12-16 - "ran sudo systemctl edit munge" added line PIDFile=/var/run/munged.pid, then saved it with ^O and enter, then exited with ^X, in the slides this is done in vim but in ssh it's in nano by default

Slide 17 - "ran sudo systemctl restart munge" and "sudo systemctl status munge" with no issue, some values were different but I assume these are to be expected with a different system.

Slide 18 - ran "sudo -i" and "wwctl container exec rocky-9 /bin/bash" instead of "[rocky-9] Warewulf>" "[rocky-9|write] Warewulf>" assuming there is no real difference

Slide 18 - ran "yum install munge" and "systemctl enable munge" and "exit" received,

"WARN : /etc/passwd has been modified, maybe you want to run syncuser

and

WARN : /etc/group has been modified, maybe you want to run syncuser"

But other than that there were no issues

Slide 19 - ran "wwctl overlay import --parents wwinit /etc/munge/munge.key" with no issues

Slide 20 - ran "wwctl overlay import --parents wwinit /usr/lib/systemd/system/munge.service" and "file /var/lib/warewulf/overlays/wwinit/rootfs/usr/lib/systemd/system" then ran "file /var/lib/warewulf/overlays/wwinit/rootfs/usr/lib/systemd/system/" just to be safe and match the slides

Slide 21 - ran "wwctl overlay chown wwinit /etc/munge/munge.key \$(id -u munge) \$(id -g munge) and "wwctl overlay chmod wwinit /etc/munge/munge.key 0400" and "wwctl overlay chown wwinit /etc/munge \$(id -u munge) \$(id -g munge)" and "wwctl overlay chmod wwinit /etc/munge 0700" and "wwctl overlay chmod wwinit /usr 0755"

Accidentally ran

"wwctl overlay chown wwinit /etc/munge/munge.key 0400" instead of

""wwctl overlay chmod wwinit /etc/munge/munge.key 0400"

So i went back and ran the correct command, will this cause issues?

Slide 22 - ran "wwctl overlay build" with no issue

Slide 23 - ran "chown -R munge: /etc/munge/ /var/log/munge /var/lib/munge/ /run/munge/" and "chmod 0700 /etc/munge/ /var/log/munge/ /var/lib/munge" "chmod 0711 \var\run\munge" with no issues

Slide 24 - sshed into gondor and ran "rebot" with no issues

Slide 25 - ran "systemctl enable munge" with no issues

Slide 26 - ran "munge -n" and "munge -n | unmunge" with no issues. "munge -n | ssh gondor" returned the error

"ssh: connect to host gondor port 22: No route to host"

Continuing from Slide 27 due to error

Slide 27 - ran "sudo timedatectl set-timezone America/Denver", "wwctl overlay import wwinit /etc/localtime", "yum install chrony" (already installed), "ststemctl enable chronyd", and wwctl overlay build" without issue

Slide 28 - ran "systemctl status chronyd" without issue

Slide 29 - ran all commands without issue, the group and user were already created.

Slide 30 - ran all commands without issue

Slide 31 - slides show user not sudo -i root running commands but doing so under user causes permission denied so ran under sudo -i instead

Slide 32 - ran all commands with no issue, mariadb was already installed

Slide 34 - issue running "sudo yum install mariadb-devel munge-devel pam-devel readlinedevel perl dbus-devel" sudo not found. Mostlikely error and needs to run on the head node

Bryce and I unknowingly both did slides 40-49 concurrently which accounts for why some things were already downloaded or enabled

Slide 40 - ran "wget https://download.schedmd.com/slurm/slurm-23.11.5.tar.bz2" and "> yum install rpm-build" and "rpmbuild -ta slurm-23.11.5.tar.bz2" and " cd /root/rpmbuild/RPMS/x86_64/" in the warewulf container with no issue

Slide 41 - ran "yum localinstall slurm-23.11.5-1.el9.x86_64.rpm slurm-slurmd-23.11.5-1.el9.x86_64.rpm" with no issue

Installed to same directory as /root/rpmbuild/RPMS/x86_64/

Slide 42 - slide doesn't say but you need to cd ~ to the root Ran "rm -rf rpmbuild" without issue. "Systemctl enable slurmd" before exit unlike in the slides where it's after for some reason

The slides have 35 files removed, when i exited it removed 53

Slide 43 - ran "mkdir /var/spool/slurmctld" and "chown slurm:slurm /var/spool/slurmctld" without any issue

Slide 44 - "cp slurm.conf.example slurm.conf" returned "cp: overwrite 'slurm.conf"?" not found in the slides. I responded "y". Ran "cp slurmdbd.conf.example slurmdbd.conf" with no issue no prompt came up

Slide 45 - running "emacs slurm.conf" give a different file saying it's an example slurmdbd file but "emacs slurm.conf.example" shows the correct file "added ClusterName=mordor, SlurmctldHost=mordor, SlurmdDebug=debug, DebugFlags=cgroup"

Slide 47 - "firewall-cmd --permanent --zone=internal --add-port=6817/tcp" and "firewall-cmd --permanent --zone=internal --add-port=6819/tcp" both gave the warnings "Warning: ALREADY_ENABLED: 6817:tcp" "Warning: ALREADY_ENABLED: 6819:tcp" but still returned success along with "firewall-cmd --relead"

Slide 48 - "systemctl enable --now slurmctld" initially returned the error "Job for slurmctld.service failed because the control process exited with error code.

See "systemctl status slurmctld.service" and "journalctl -xeu slurmctld.service" for details.

".

When running the given command there was an error reading the conf file.

After running "systemctl enable --now slurmctld" again nothing was returned, neither an error, or the created symlink from the slides. Most likely still an error

Slide 49 - "systemctl status slurmctld" does say slurm is active but there are more errors than in the slides

The errors seem to have been caused by my writing "cp slurmdbd.conf.example slurm.conf" by example overriding the slurm.conf with slurmdbd.conf, this had to be reverted

Slide 67 - we weren't sure if we needed to run the commands on 67 as dbus-devel seemed to already be installed but decided to run "sudo yum install dbus-deve", "rm –rf rpmbuild", "\$ sudo yum remove slurm-* ", "rpmbuild -ta slurm-23.11.5.tar.bz2", " cd /home/matthew/rpmbuild/RPMS/x86_64" just to be safe. No issues

- **Slide 70 -** run "sudo systemctl list-unit-files | grep slurm", slurmstepd.scope transient was absent but this seems to only appear when running a job so it isn't an issue, "sudo systemctl enable --now slurmctld" ran without issue
- **Slide 71 -** ran "nmtui", edit a connection, then added the new address 10.0.0.3\16 to Internal. No issues
- **Slide 72 -** slides just show cat /etc/hosts, but don't mention that it's necessary edit the file adding the line "10.0.0.3 baraddur" above the do not edit line
- **Slide 73** similar deal with slide 72 where the slides show "cat /etc/hostname" but not that the file needs to be edited to replace hostname with the new one added in the previous slide. Otherwise "slurmd -C" worked without issue after a small time to update
- Slide 76 after some issues were ironed out by Bryce, "sinfo" now properly returns 2 nodes
- **Slide 77 -** similar to the last slide after Bryce bebugged some issues related host name and recognition "sbatch -w isengard test.slurm", "cat slurm-32.out", "sbatch -w baraddur test.slurm", and "cat slurm-33.out" all worked without issue