

# cgroups

in class

## cgroups

- Install the dependencies.
- `sudo apt-get install cgroup-tools cgroup-lite iotop`

## Make a file

- Make a 1 GB file full of zeros so we can test the speed of reading a file after we add it to a cgroup.
- `dd if=/dev/zero of=file.abc bs=1M count=1000`

## Create cgconfig

- Make a file in `/etc/cgconfig.conf` with the following contents:

```
group limitio{
    blkio {
        blkio.throttle.read_bps_device = "8:0          5242880";
    }
}
group browsers{
    memory {
        memory.limit_in_bytes = 50m;
    }
}
```

- Make sure to save the file as `sudo`.
- Create the groups based on the configuration file.
  - `sudo cgconfigparser -l /etc/cgconfig.conf`

## Copy the file

- Use `cgexec` to execute a command that copies the file while observing the transfer speed
- `sudo egexec -g blkio:limitio dd if=file.abc of=/dev/null`
- Observe the transfer rate using `iotop`
  - `sudo iotop`

## **cgroups**

- Another way to add a process to a cgroup is to copy its pid into the tasks file.
- e.g. add any PID to `/sys/fs/cgroup/memory/browsers/tasks`