

# Process Management

## Hands-On UNIX System Administration DeCal

Lab 5 — 1 October 2012

Due 8 October at 6:10 PM

1. What is the difference between a job and a process?
2. What are signals? Name a way a user can send a signal to a process.
3. Describe how you would:
  - (a) suspend the foreground job
  - (b) move a suspended job to the background
  - (c) bring back a suspended job to the foreground
4. What is a zombie process, and how can you kill it?
5. What does the following crontab entry mean?  

```
00,30 09-17 * * 1-5 find /tmp -atim +30 -exec rm -f {} \;
```
6. Create a crontab entry to execute a script called `backup.sh`, located in your `homedir`, run at 1:00am every Monday and Friday. *Clarification: You don't write the actual `backup.sh` script, we just want the crontab entry you would have.*
7. How can you find the PID of your shell you are currently using without `ps`?
8. What's `init`'s PID? What about its PPID?
9. What happens when a process's parent dies if:
  - (a) That process was started with `nohup` (lookup `nohup`), and backgrounded
  - (b) That process was just running in the background
10. What is `init`'s PID? What about its PPID? Does `init` have a parent?
11. Devise a simple pipeline that counts the number of processes currently running on your system
12. When wouldn't `kill -9` work?