


LPIC-1 101-400 – Lesson 5 – Lab

- * Login into your Debian Lab environment
- `$ cd Lab5 # change into Lab5`
- `$ screen # launch screen`
- `$ ps aux | grep init # find the init process`
- `$ ps aux | less # check all running proc`
- `$ ps eaux | less`
- `Ctrl-c # create a new shell`
- `$ ps auxwf | less`
- `Ctrl-a Ctrl-a # switch between shells`
- `$ ps -ef | less # show all processes full format (UNIX98)`
- `$ ps -eF | less # extra full format`
- `$ ps -ely | less # long format`
- `$ ps -C agetty # list the agetty processes`
- `Ctrl-d # detach screen`
- `$ screen -r # re-attach screen`



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- `Ctrl-a c` # create yet another screen parallel shell
 - `Ctrl-a "` # show list of shells. Choose shell '2'
 - `$ pstree` # show processes in tree form
 - `Ctrl-a Ctrl-a` # run the following command in another shell
 - `$ pstree -a` # show full command line
 - `Ctrl-a Ctrl-a` # compare the two previous commands
 - `$ pstree -p` # show PIDs
 - `$ top -d 1` # run top, refresh every second
 - `$ top -bi -n 10 -d 1 > top-proc.txt` # run top in batch, show only non-idle processes, refresh every second, stop after 10 times and save result in top-proc.txt
 - `$ view top-proc.txt` # check out the results of the last command
 - `$ top` # press M and then P. Q to quit
 - `Ctrl-a` # create yet another shell
 - `$ ping 8.8.8.8` # Ctrl-c to terminate
 - `$ ping 8.8.8.8 > /dev/null 2>&1` # Ctrl-Z to suspend
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- `$ jobs # check jobs`
- `$ bg # send suspended last job to background`
- `$ jobs # check jobs again`
- `$ fg # Ctrl-C to terminate the ping job`
- `$ jobs # check jobs again`
- `$ ping 10.1.11.50 > /dev/null 2>&1 & # send job straight to background`
- `$ jobs # check jobs`
- `$ view /etc/fstab # Ctrl-Z to suspend this job too`
- `$ jobs # check jobs`
- `$ bg # send to background`
- `$ jobs # check job`
- `Ctrl-a d # detach screen`
- `$ logout # logout from the system`
- * **Login into your Lab environment again**



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- `$ screen -r # re-attach screen`
- `Ctrl-a 3 # switch to shell 3`
- `$ fg 2 # bring job 2 to foreground. :q to exit view`
- `$ fg 1 # Ctrl-C to terminate ping`
- `$ nohup ping 8.8.8.8 # Ctrl-C to terminate ping`
- `$ cat nohup.out # check the output of last command`
- `$ nohup ping 10.1.11.50 & # run ping in background`
- `$ tail -f nohup.out # Ctrl-C to terminate tail`
- `$ ps aux | grep ping # find PID of ping`
- `$ pgrep ping # find PID of ping (using pgrep)`
- `$ pkill ping # terminate ping`
- `$ ps aux | grep ping # verify that ping is terminated`
- `Ctrl-a " # show list of shells`
- `Ctrl-a 1 # or 2. switch to another shell`
- `Ctrl-a n # go to next shell`
- `Ctrl-a p # go to previous shell`



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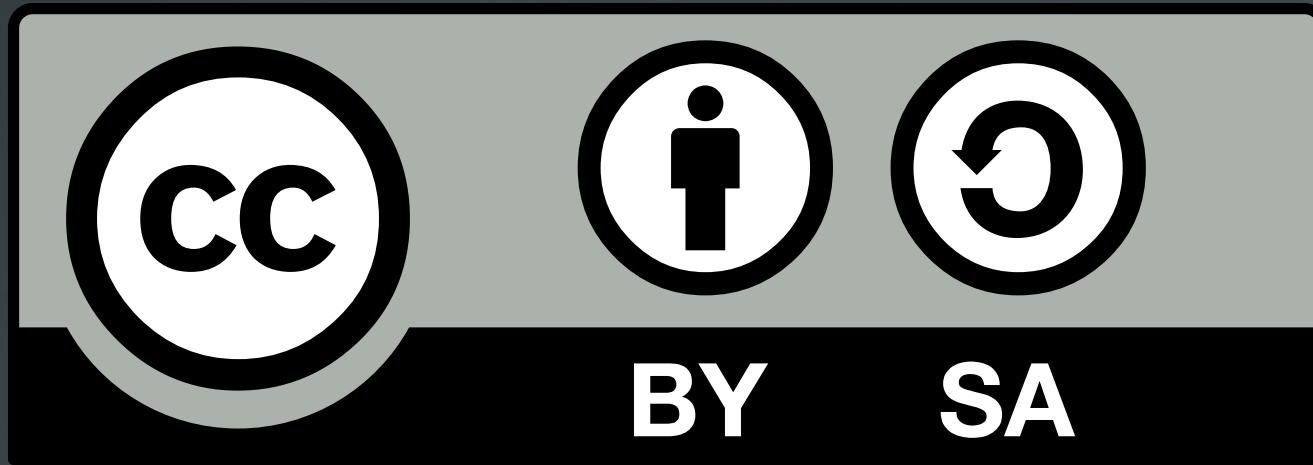
- `$ vi numbers.txt # press I to edit`
 `one`
 `two`
- `Ctrl-a c # launch another shell`
- `$ pgrep -f numbers.txt # find the vi PID editing number.txt`
- `$ kill <vi PID> # terminate (signal 15) vi`
- `Ctrl-a Ctrl-a # switch to the previous shell`
- `$ vi letters.txt # press i`
 `a`
 `b`
- `Ctrl-a Ctrl-a # switch to the previous shell`
- `$ pgrep -x vi # find the vi process`
- `$ kill -9 <vi PID> # kill it mercilessly!`
- `Ctrl-a Ctrl-a # switch to the previous shell to check vi`
- `$ sudo -i # become root (superuser)`
- `# ps aux | grep apache # find Apache processes`
- `# killall apache2 # terminate Apache processes`

Lesson 5 – Lab

- `$ free # check free memory utilization`
- `$ free -m # # check free memory utilization in megabytes`
- `$ free -m -s 1 # refresh every second`
- `$ free -m -t # show total (Memory + SWAP) stats`
- `$ uptime # show system uptime`



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