

CheatSheet: Linux Internals

INTERVIEW

- PDF Link: [cheatsheet-linuxinternals-A4.pdf](#), Category: interview
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-linuxinternals-A4>
- Related posts: CheatSheet: Leetcode For Code Interview, CheatSheet: Well-Known Papers For IT Industry, #denny-cheatsheets

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1.1 Reference

Name	Summary
Cheatsheet	CheatSheet: Leetcode For Code Interview, CheatSheet: Common Code Problems & Follow-ups
Cheatsheet	CheatSheet: System Design For Job Interview, CheatSheet: SRE/DevOps/Sysadmin
Cheatsheet	CheatSheet: Behavior Questions For Coder Interview, Shell CheatSheet
Link	Link: SRE INTERVIEW QUESTIONS, Link: Brendan D. Gregg
Link	Link: Facebook Production Engineering Internship Interview
Link	Link: Google Site Reliability Engineering, SRE: "solving the most interesting problems"
Github	Github: chassing/linux-sysadmin-interview-questions , Github: 0xAX/linux-insides

1.2 Top 15 Linux Basic Questions

Num	Name	Summary
1	Thread VS Process	Github Link
2	Explain virtual memory	Github Link
3	Explain paging and paging fault	Github Link
4	Explain inode	Github Link
5	Explain how OS schedules processes	Github Link
6	Explain linux virtual filesystem	Github Link
7	epoll VS poll VS select	Github Link
8	Explain spinlock	Github Link
9	Explain linux signal	Github Link
10	Explain RAID	Github Link
11	Explain linux fork	
12	What is /proc directory?	
13	How to solve ssh "Connection refused" errors?	
14	How to daemonize a process?	
15	What are common scenarios of linux kernel panics?	
16	What are coredump and kdump?	
17	Program startup process in userspace	Link: Program startup process in userspace
18	What is init program?	

1.3 Explain Top Linux Tooling

Num	Name	Summary
1	Explain the output of vmstat command	Github Link
2	Explain the output of netstat command	Github Link
3	Explain the output of free command	Github Link
4	Explain the output of top command	Github Link
5	Explain the output of sar command	system staticstics with sysstat cronjob
6	Explain the output of df command	

1.4 Top 15 Linux Workflow

Num	Name	Summary
1	What happens, when opening <code>https://www.google.com</code>	Github Link
2	What happens, when <code>"ls -l *"</code>	Github Link. shell, expansion, fork
3	What happens, when <code>"Ctrl + c"</code> in a terminal	Github Link. i/o interrupt, SIGINT, sig handler
4	What happens, when <code>"touch a.txt"</code>	Github Link
5	What happens, when you press power on button in a server?	Github Link. bios, mbr, grub, init, runlevel
6	What happens, when <code>"cat /etc/hosts"</code>	Github Link
7	Explain how system call works	Github Link
8	Explain hostname to ip address mapping workflow	Github Link
9	Explain init.d workflow	Github Link
10	Explain how to build a linux release	Github Link
11	Explain how kernel schedules process	Github Link
12	Explain how kernel read data from disk	Github Link
13	Explain how systemtap works	Github Link
14	Explain how I/O interrupt works	Github Link. Top half, bottom half, interrupt handler
15	Speed up I/O	Linux sendfile with zero-copy, mmap: map file to ram

1.5 Linux Trouble Shooting

Num	Name	Summary
1	Figure out who has logged to server now and previously?	w, last, lastb; lastlog; /var/run/*tmp
2	Forget root password. How to reset it?	Reset from GRUB or liveCD
3	How does sudo work? Given sudo, why people may need su?	
4	How to close stdin/stdout/stderr of one command	<code>some_command </dev/null >/dev/null 2>&1</code>

1.6 More Resources

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<https://syedali.net/engineer-interview-questions/>