



# Unix Qs

1. What is the default signal that is generated when sending a kill command to a process in Linux?
2. Linux Performance commands
3. Kernel to the CPU interrupt level
4. Name three states a process can be in
5. Given output of command vmstat and analyze the system.
6. How do you make a process a service?
7. What is a zombie process?
8. What happens during the boot process from the moment you turn on the machine until you get a login prompt?
9. How can you find whether a process is I/O bound or CPU bound?
10. system calls, signals (term, kill, etc), load vs cpu util
11. What is a filesystem, how does it work?
12. File permissions, properties, file types.
13. A write operation failed with an error, how do you figure out what happened?
14. What's a signal and how is it handled by the kernel?
15. Talk about an iostat output (what does user vs system cpu load mean, what does iowait mean)
16. cache vs buffers, why do we need caching, how much cache is needed
17. how can disk performance be improved, where is the bottleneck
18. Explain in every single step about what will happen after you type "ls \*" in your terminal.
19. Suppose there is a server with high CPU load but there is no process with high CPU time. What could be the reason for that? How do you debug this

problem? Does your solution always work, and if not, what's the reason for that?

20. What will happen when type "ls -l \*.txt"
21. How would you design a cache API?
22. reimplement 'tail' in a scripting language
23. when you saw many system interrupts, what could be the possible reason in linux
24. Given a database with slow I/O, how can we improve it?
25. What signal do you send a service to end it?
26. Under ps, what are three states that a service can be in?
27. Out of the 5-6 states you can find under ps, which two takes up system memory?
28. If 0 is STDIN and 1 is STDOUT, what's 2?
29. How would you troubleshoot a system in which you are not able to start an application on the server?
30. Explain containerization?
31. What happens in Linux when you type ls -l?
32. Explain pagination
33. We have a database running unusually slow in production. Why might this be happening?
34. What does "\$?" mean in bash?
35. SIGTERMS
36. How to limit process memory?
37. Describe in detail on the kernel level how signals from terminal user reach processes.
38. What command would be used to check file system consistency?
39. swap
40. What is the swap area, regarding memory? (Systems)
41. How a network process is terminated
42. Can you kill a zombie process
43. How do you load a Linux kernel
44. what info is not on inode - userID, file's name, fileID

45. if you had a program that needed 1TB of RAM and you only have 16GB, how does the linux system allocate memory.
46. how to find list of active processes
47. How does strace work
48. List ways to catch a signal for a program that you don't have source code for.
49. IPC and memory
50. Explain in detail, down to the machine language what steps are executed after you type in the Linux command "ps" into the terminal.
51. What does the uname -r command do.
52. What is file descriptor
53. How do you load a module into the linux kernel?
54. How do you trace all the function calls in a running process