

Zoho Linux Administrator – Interview Question Set #2 (Fresher Level)

◆ Section 1: System & File System Basics

1. **What is the purpose of /etc/fstab and how is it used during boot?**
 - This file system is used to store the mount configuration for the device and also store them for the use in boot period of the machine
 2. **Explain the difference between absolute and relative paths in Linux. Give examples.**
 - The absolute path is the path where the path starts with the / and defines the whole path like /var/log/check.log
 - Relative path doesn't start with the / they are giving the path separately like for example: cd etc, cd passwd
 3. **How would you create a read-only file for all users except the owner? Show commands.**
 - Chmod 400 filename
 4. **What is the difference between > and >> in redirection?**
 - > and >> are defined for redirection such as > is used to overwrite the content in the file and >> is used to append content in the file
 5. **Give a command to list all files in /var/log modified in the last 24 hours.**
 - find /var/log -type f -mtime -1
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◆ Section 2: Permissions & Ownership

6. **How would you change the group ownership of all .conf files in /etc to admin group?**
 - Find /etc -type f -name "*.conf" -exec chgrp admin{} \;
7. **What does the chmod 750 file.sh permission mean in detail?**
 - chmod 750 - owner with all permissions 5 - group with read and exec and other with 0 no permissions
8. **How can you recursively remove execute permissions for 'others' from a directory?**
 - chmod -R o-x filename
9. **What happens if a user's shell is set to /sbin/nologin? How do you fix it?**
 - The user cannot login into the shell , so when we try to give the user the shell command the user doesn't exist

- To fix this:
 - `usermod -s /bin/bash <username>`
 - to make the user to get the user bin bash shell

10. A developer says their script can't execute. How would you check and resolve the issue?

- Check the files permissions of the script you need to run
- `ls -ltr | grep filename`
- `chmod a+x filename`
- now run the script file

◆ Section 3: Process & Service Management

11. How would you check the top 5 memory-consuming processes on a Linux machine?

- `ps -aux | sort -hr | head -n 5`

12. What is the difference between kill and kill -9? When would you use each?

- This kill and kill -9 are using the terms SIGKILL and SIGTERM
- The kill command enables the term SIGTERM where the process are done and the dependencies and the resources are cleaned up
- The kill -9 command enable the term SIGKILL where the process are done and the resources are left and the same point and they are not cleared

13. A service is failing to start. Which files and commands will you check to troubleshoot?

- `systemctl enable <service_name>`
- `journalctl -u <service_name> --since "5 minutes ago"`
- check the ports and dependencies - `netstat -tulnp | grep <port>`
- check the status of the service - `systemctl status <service_name>`

14. How do you view the status of a cron job for another user?

- `Crontab -l` to list all the cron job entries to list all the jobs in the user
- `Crontab -u <username> -l` - this is used to list all the crons in other user

15. Explain how you would monitor Apache (httpd) logs in real time.

- `tail -n 10 /var/log/httpd/access_log`

- `tail -n 10 /var/log/httpd/error_log`
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◆ Section 4: Networking & Connectivity

16. What's the difference between ping, curl, and wget? Give use-case examples.

- Ping command is used to check there is an network connectivity or not in the machine
- Curl command is used to download from the website but they are used to handle file downloads with protocols ,handle api, upload and download files with encryption
- Wget is used to recursively download the files from the website to use in the machine

17. How would you troubleshoot if DNS name resolution fails but pinging IP works?

- First flush the dns service to remove the dns cache
- Ensure that the DHCP is configured correctly to the DNS server
- Ensure that the firewall is not blocking any user
- Use the command `nslookup`
- Restart the dns service

18. Your Linux server can't reach the internet. What would you check and how?

- Use the command `ping` and the ping the machine server to check whether they reach the internet connection or not
- Check the dns server configuration in the `/etc/resolv.conf`
- Check the network interface in the machine `<ifconfig>` or use the command `ifconfig <interface>`
- Ensure that the network manager is active or not `systemctl status NetworkManager`
- Use the command `traceroute` is used to trace the path and the destination where they internet connectivity is breaking
- Use the tcp connection code - `echo > /dev/tcp/<ip>/53; echo $?` If this command returns 0 then the connectivity is successfull


19. Write a command to list all open ports on the system. How do you check if SSH is open?

- `Netstat -tulnp` is the command to know all the listening ports in the machine

20. How do you test SSH connectivity to a remote server with a specific user and port?

- For example take a user and their password
 - Then use the command `ifconfig` to know the ip address of the machine
 - Then login into the putty and give them the ip address and then host the machine
 - Now connect the user by giving the user name and the password
 - To check on the ssh connection :
 - `ssh -p <portnumber> <username>@ip_address or server_ip`
 - to check the port we are working on we can go to the path `/etc/sshd/sshd_config`
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Bonus Real-Time Scenario (Zoho-style)

 "A junior developer accidentally set `chmod 000` on the `/etc` directory. How would you recover the system without rebooting?"

- just change the permissions to `755 /etc` and then restart the putty system