

# 1 Linux Admin

Links:

<https://www.slideshare.net/kavyasri790693/linux-admin-interview-questions>  
<http://simplylinuxfaq.blogspot.in/p/linux-system-admin-interview-questions.html>  
<https://github.com/kylejohnson/linux-sysadmin-interview-questions/blob/master/test.md>  
<https://github.com/chassing/linux-sysadmin-interview-questions#hard>

## 1.1 Users, Passwords & Permissions

### Users

1	Adding a user	useradd (single) → newusers (batch mode useradd)
2	Lock an Account	usermod -l _____
3	New password	passwd "username"
4	Default file permissions	Set UMASK in /etc/login.defs (debians). Takes away the permissions
5	Change Owner & Group	chown
6	Hashed passwords storage	/etc/shadow
7	Change Permissions	chmod Bit mask OGA rwx
8	Delete User	userdel, removing recursively home folder and files → userdel -r

## 1.2 Sudo

1. Add a user as a sudoer by using visudo. You can specify users or groups.
2. Common to have a sudo or wheel group and to give that group permissions in visudo
3. Syntax → user computerAddress=(Runas\_Alias) Command\_Alias
4. You can use a Runas\_Alias to define a semi-super user that owns a group of files or processes. Then the user can use sudo to run as that user. Same you can limit the commands that a user can run as sudo with the Command\_Alias

5. to give sudo root access use 'user' ALL=(ALL) ALL → root privileges to "user" with use of sudo

## Groups

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<b>1</b>	Wheel	Group allowing access to the sudo/su command to become another user or the superuser, for sudo this is enabled with visudo.
<b>2</b>	Add user to a group	usermod -a -G "group" "user" (-a only used with -G, without -a, -G makes the given groups the only additional groups he is a member of)
<b>3</b>	Change users primary group	usermod -g "group" "user"
<b>4</b>	New Group	groupadd -----
<b>5</b>	All groups on system	getent group

### 1.3 General

## Mounting

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<b>1</b>	Mounting	mount /dev/-----destination
<b>2</b>	What disk are mounted	mount
<b>3</b>	Connected disks	lsblk prints out all of the connected devices nicely formatted
<b>4</b>	Mounting on boot	edit /etc/fstab

## TAR & ZIP

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<b>1</b>	Make a tarball	tar -cf fileout.tar filename1 filename2...
<b>2</b>	Extract a tarball	tar -xf filename.tar (be cautious of 'tarbombs' extract in a directory)
<b>3</b>	Compress to .gz	gzip filename
<b>4</b>	Uncompress .gz	gzip -c filename.gz
<b>5</b>	tar & compress	tar -zcf fileout.tar.gz filename1 filename2...
<b>6</b>		

## Files

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<b>1</b>	Types	7 types block special, char special, directory, normal file, symbolic link, named pipe, socket
<b>2</b>		
<b>3</b>		

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### Pipes & Redirection

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<b>1</b>	Pipes	Sends the output of one file into the input of another → cat ____— grep "____"
<b>2</b>	Redirect	Use > to overwrite a file, >> to append. Use 1>> for STDOUT & 2>> for STDERR

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### General Bash

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<b>1</b>	Break a line on a delimiter	cut
<b>2</b>	curl	Tool for talking over several different protocols
<b>3</b>	find	

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### Maintenance

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<b>1</b>	Schedule Jobs (user)	crontab, edit using crontab -e, kept in /var/spool/cron/crontabs, also package specific cron jobs are in /etc/cron.d
<b>2</b>	Schedule Jobs (system)	/etc/crontab

## 1.4 Strings & Searching

### 1.4.1 Grep

1. Search for a character pattern in a string
2. grep \_\_\_\_filename → returns the lines with the character pattern \_\_\_\_in file filename
3. Follow directories "grep -r \_\_\_\_/\*"
4. Get the line number → -n
5. Get files with the string → -l
6. Ignore case → -i

### **1.4.2 Find**

1. Find a specific file by name `find {Starting directory} -name "filename"`
2. Finding by type  $\rightarrow$  `find {Starting directory} -type d/f...`
3. Searching depth  $\rightarrow$  `find -----maxdepth "depth"`
4. Running a command on all found files  $\rightarrow$  `find -----exec "command" + (the + ends the command)`

## **2 GIT**

## **3 MySQL**

### **3.1 Users & Permissions**

## **4 Python**