

Guide to Linux+ ISBN 0-418-83721-0 End of Chapter Solutions

Chapter 2 Solutions

Review Questions

1. What is the default shell in Linux called?
 - a. SH
 - b. BSH
 - c. CSH
 - d. BASHAnswer: d
2. What equivalent to the `man` command generally provides an easier-to-read description of the queried command and also contains links to other related information?
 - a. `who`
 - b. `man help`
 - c. `man -descriptive`
 - d. `info`Answer: d
3. What command can you use to safely shut down the Linux system immediately?
 - a. `shutdown -c`
 - b. `shutdown -r`
 - c. `down`
 - d. `halt`Answer: d
4. What command is equivalent to the `man -k keyword` command?
 - a. `find keyword`
 - b. `man keyword`
 - c. `apropos keyword`
 - d. `appaloosa keyword`Answer: c
5. Which of the following is not a piece of information that the Fedora installation program prompts you for?
 - a. Time zone
 - b. Package selection
 - c. Firewall settings
 - d. Host name
 - e. Keyboard layoutAnswer: c
6. Linux commands entered via the command line are not case sensitive. True or False?
Answer: False
7. Which command blanks the terminal screen erasing previously displayed output?
 - a. `erase`
 - b. `clean`
 - c. `blank`
 - d. `clear`Answer: d

8. When sitting at a computer running Linux, what key combination is pressed to open the graphical terminal?
- Ctrl+Alt+G
 - Ctrl+Alt+F4
 - Ctrl+Alt+F1
 - Ctrl+7

Answer: c

9. After you log into a terminal, you receive a user interface called a _____.
- GUID
 - shell
 - text box
 - command screen

Answer: b

10. Users enter commands directly to the kernel of the Linux operating system. True or False?

Answer: False

11. How can you protect a metacharacter (such as the \$ character) from shell interpretation?
- Precede it with a /.
 - Follow it with a \.
 - Precede it with a \$.
 - It cannot be done as metacharacters are essential.
 - Precede it with a \.

Answer: e

12. You know a Linux command will perform a desired function for you, but you cannot remember the full name of the command. You do remember it will flush a variable from your system. Which command typed at a command prompt displays a list of commands that would likely contain the command you desire?
- man -k flush
 - man -k find all
 - man flush
 - man -key flush

Answer: a

13. Which command displays the users who are currently logged in to the Linux system?
- finger
 - who
 - id
 - date

Answer: b

14. Which of the following packages can be used to standardize configuration files across Linux systems?
- Samba
 - Apache
 - NIS
 - NFS

Answer: c

15. Which prompt does the root user receive when logged in to the system?
- \$
 - @
 - #
 - !

Answer: c

16. Which prompt do regular users receive when logged in to the system?
- \$
 - @
 - #

d. !

Answer: a

17. Which of the following refers to the third primary partition on the second SCSI hard disk within Linux?

- a. hdb2
- b. sda3
- c. hdb3
- d. sdb3

Answer: d

18. Which two partitions do you typically create at minimum during a Fedora Linux installation?

- a. /
- b. /boot
- c. swap
- d. /home

Answer: a, c

19. You are planning to install 7GB of packages during the installation of your Linux server. Your Linux server has 2GB of RAM. How much free space should you have on your hard disk at minimum?

- a. 7GB
- b. 9GB
- c. 14GB
- d. 22GB

Answer: d

20. Which boot loader is available to choose from during the installation of Fedora Linux?

- a. LILO
- b. ABOOT
- c. GRUB
- d. TeX

Answer: c

Hands-on Projects

Project 2-1

Not available.

Project 2-2

Not available.

Project 2-3

Step 1: The # prompt as it is the standard prompt for the root user.

Step 2: The shell is case sensitive; Date is not a valid command name. The error message came from the shell.

Step 3: The \$ prompt as it is the standard prompt for regular user accounts.

Step 4: The root user is logged in to tty2 and user1 is logged in to tty5.

Step 5: No, the session is kept active even if the user is not interacting with it.

Step 6: The exit command ends the shell and returns you to a login prompt.

Step 7: Not available.

Project 2-4

Step 1: The GNOME desktop is the default in Fedora Linux.

Step 2: The \$ prompt as it is the standard prompt for regular user accounts.

Step 3: Not available.

Step 4: Not available.

Step 5: Not available.

Step 6: The \$ prompt as it is the standard prompt for regular user accounts.

Step 7: Yes.

Step 8: Not available.

Project 2-5

Step 1: Not available.

Step 2: The ; character acts as a command terminator allowing you to enter more than one command on the command line before execution.

Step 3: Not available.

Step 4: The single quote character needs protection.

Step 5: Don't do this.

Step 6: Don't do this.

Step 7: /bin/bash was displayed first; nothing was displayed second.

Step 8: You have .50—you can protect \$ using single quotation marks or a backslash character.

Step 9: You have \$4.50.

Step 10: You have .50.

Step 11: You have \$4.50.

Step 12: My name is root—the backquotes perform command substitution.

Step 13: Not available.

Project 2-6

Step 1: Not available.

Step 2: There are three different manual pages for `crontab` (2 commands and 1 file format).

Step 3: Not available.

Step 4: Not available.

Step 5: Not available.

Step 6: Not available.

Step 7: Not available.

Step 8: Not available.

Step 9: Not available.

Project 2-7

Step 1: Not available.

Step 2: There are three different manual pages for `crontab` (2 commands and 1 file format).

Step 3: Not available.

Step 4: Not available.

Step 5: Not available.

Step 6: Not available.

Step 7: Not available.

Step 8: Not available.

Step 9: Not available.

The `halt` command.

Discovery Exercises

Discovery Exercise 1

Answers will vary. The command used is **man -k copy** or **apropos copy**. Commands that only the root user can execute are indicated with (8) and there are several of them. The remainder of this Discovery Exercise will vary.

Discovery Exercise 2

The correct commands are:

echo "This command does not work properly"

date

apropos man

man -k man

man date

(echo must be spelled with a lowercase e)

(the date command does not take a -z option)

(the apropos and man -k commands are identical in function but are separate commands)

(date is not a shell function – cannot use help)

finger root
shutdown -h now
shutdown -r now

echo 'I would like lots of \$\$\$'

man 1 date

(the route user does not exist, yet the root user does)
(the -c option to shut down cancels a shutdown;
however, the -h and -r options can be used to reboot
or halt)
(the \$ character is a shell metacharacter that needs
to be protected)
(date is in section 1 of the manual pages)

Chapter 2 Solutions

Lab 2.1

1. To run Knoppix, your computer must be capable of which of the following?
 - b. Booting from a CD
2. Knoppix requires creating a Linux swap partition on your computer's hard disk. True or False?
False
3. If you have Windows installed on your computer, you can't run Knoppix. True or False?
False
4. The files in the `/proc` directory take up space on your computer's hard disk. True or False?
False
5. What command do you use to get information about your system's processor?
`cat cpuinfo` or `more cpuinfo`

Lab 2.2

1. Running Memtest86 requires installing Linux on the computer first. True or False?
False
2. Memtest86 stops testing after how many passes?
 - e. Until you exit
3. Memtest86 tests only main memory, not the processor's cache. True or False?
False
4. Memtest86 performs tests only on single-core CPUs. True or False?
False
5. Linux can be configured to work with memory that has errors. True or False?
True

Lab 2.3

1. FireWire (IEEE 1394) is faster than USB 2.0. True or False?
True
2. What's the maximum speed of USB 2.0?
 - c. 480 Mbps
3. What's the maximum speed of USB 3.0?
 - d. 5 Gbps (gigabits per second)
4. HDMI ports are used to transfer files to external drives. True or False?
False

5. When did Linux start supporting USB 3.0?
 - b. September 2009

Lab 2.4

1. Most Linux distributions place the kernel file in which directory?
 - b. `/boot`
2. If there's more than one kernel file on your system, how can you tell which one the system uses to boot Linux?

Look at the boot loader configuration file.
3. Which are the two most widely used boot loader programs in Linux?
 - c. LILO and GRUB
4. If you're using the LILO boot loader, what is its configuration file?
 - d. `/etc/lilo.conf`
5. Which command tells you whether a file is a kernel file?
 - b. `file`

Lab 2.5

1. Which of the following is the correct way to refer to terminals in Linux commands?
 - c. `/dev/tty5`
2. If you send a string to a `tty` being used by a program, is the program aware that you wrote to its screen?

No
3. Suppose a device called `/dev/dice` produces random numbers between 1 and 6 (simulating the role of a die). What command do you use to display these numbers to `tty6`?
 - a. `cat /dev/dice > /dev/tty6`
4. Write the correct command to send the contents of the GRUB boot loader configuration file to `tty5`.

`cat /etc/grub.conf > /dev/tty5`

Lab 2.6

1. When using the `shutdown` command, the only option is to halt the system. True or False?

False
2. Any user can cancel a shutdown, but only the root user can actually shut the system down. True or False?

False
3. Which command shuts the system down and reboots immediately?
 - b. `shutdown -r now`

4. Write the command to send this shutdown warning message: “The system is going down for maintenance in 2 minutes! You really need to log off now!” However, don’t actually shut the system down.

```
shutdown -k 2 You really need to log off now!
```

5. Write the command to cancel a pending shutdown.

```
shutdown -c
```