

# Guide to Linux+, Fifth Edition

## Chapter 2 Solutions

### Review Questions

1. What is the default shell in Linux called?
  - a. SH
  - b. BSH
  - c. CSH
  - d. BASH

Answer: d
2. What equivalent to the man command generally provides an easier-to-read description of the queried command and 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. installation destination
  - c. firewall settings
  - d. installation language

Answer: 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 do you press to open the graphical terminal?
  - a. Ctrl+Alt+G
  - b. Ctrl+Alt+F4

- c. Ctrl+Alt+F1
- d. Ctrl+7

Answer: c

9. To install Linux within a virtual machine, you can specify the path to an ISO image that contains the Linux installation media within virtualization software without having to first write the ISO image to a DVD or USB flash drive. True or False?

Answer: True

10. After you log in to a terminal, you receive a user interface called a \_\_\_\_\_.
- a. GUID
  - b. shell
  - c. text box
  - d. command screen

Answer: b

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

Answer: False

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

Answer: e

13. 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?

- a. man -k flush
- b. man -k find all
- c. man flush
- d. man -key flush

Answer: a

14. Which command displays the users who are currently logged in to the Linux system?

- a. finger
- b. who
- c. id
- d. date

Answer: b

15. Which prompt does the root user receive when logged in to the system?

- a. \$
- b. @
- c. #
- d. !

Answer: c

16. Which prompt do regular users receive when logged in to the system?

- a. \$
- b. @
- c. #
- d. !

Answer: a

17. Which of the following refers to the third primary partition on the second SAS 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? (Choose two answers.)

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

Answer: a, c

19. If you boot your computer from Linux live media, you will be able to use a fully-functional Linux system prior to installing Linux on permanent storage. True or False?

Answer: True

20. Which of the following is *not* an example of virtualization software that can be used to install Linux within another operating system?

- a. Oracle VirtualBox
- b. Microsoft Hyper-V
- c. Spiceworks
- d. VMWare

Answer: c

## Hands-on Projects

### Project 2-1

Not available.

### Project 2-2

Step 1: The \$ prompt as it is the standard prompt for regular user accounts.

Step 2: Not available.

Step 3: The shell is case sensitive; Date is not a valid command name. The error message came from the bash shell.

Step 4: The # prompt as it is the standard prompt for the root user.

Step 5: The root user is logged in to tty5 and user1 is logged in to tty3.

Step 6: No login was required on tty3. The commands are still visible because the session is kept active even if the user is not interacting with it.

Step 7: The exit command ends the shell and returns you to a login prompt.

Step 8: Not available.

### Project 2-3

Step 1: GNOME on Wayland is the default GUI environment in Fedora 28.

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

Step 3: Not available.

Step 4: Yes, the gdm is still available to accept additional graphical logins.

Step 5: Not available.

Step 6: Not available.

Step 7: Not available.

Step 8: The KDE desktop uses navigation similar to the Windows operating system (Start menu-based), whereas the GNOME desktop uses navigation that is more similar to the macOS operating system (top-down menus and a macOS-like dock at the left).

Step 9: Not available.

Step 10: Yes.

Step 11: Not available.

## *Project 2-4*

- Step 1: Not available.
- Step 2: Not available.
- 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: No, tmux does not create pseudo terminal sessions.
- Step 10: Not available.
- Step 11: Not available.
- Step 12: Not available.
- Step 13: 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, because \$4 is a nonexistent variable. The \$ character needs to be protected. You can protect \$ using single quotation marks or a backslash character.
- Step 9: You have \$4.50. Yes.
- Step 10: You have .50. No.
- Step 11: You have \$4.50. Yes.
- Step 12: The backquotes perform command substitution.
- Step 13: Not available.

## *Project 2-6*

- Step 1: Not available.
- Step 2: There are 3 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: The halt, shutdown -H now and shutdown -P now commands.

## 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" (echo must be spelled with a lowercase e)

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

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

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

shutdown -h now or shutdown -r now (the -c option to shutdown cancels a shutdown;

however, the -h and -r options can be used to reboot or halt)

echo 'I would like lots of \$\$\$' (the \$ character is a shell metacharacter that needs to be protected)

man 1 date (date is in section 1 of the manual pages)