Labs

During the Red Hat exams, the tasks will be presented electronically. Therefore, this book presents most of the labs electronically as well. For more information, see the "Lab Questions" section toward the end of Chapter 12. Most of the labs for this chapter are straightforward and require a very few commands or changes to one or two configuration files.

Lab 1

In this lab, you'll create a script named backup.sh that takes two arguments. The script should back up all files from the directory given as the first argument in an uncompressed .tar archive file, located in a directory passed as the second argument. The destination file should be named backup-MMDDHHSS.tar, where MMDDHHSS is the current day expressed in blocks of two digits for the current month, day, hour, and second.

If the script is run with a different number of arguments, it should display the following error message and exit with a code of 1:

```
Usage: backup.sh <source> <destination>
```

If the first argument is not a regular directory, the script must display an error similar to the following and exit with a code of 2:

```
Error: directory [substitute with first argument] does not exist
```

If the directory specified as the second argument does not exist, the script must create it.

Lab 2

In this lab, you'll set up a system utilization report for a single day (such as the last 21st of the month), written to a sysstat_report.txt file. Report parameters can be limited to memory and network statistics.

Lab 3

In this lab, you'll set up a system utilization report for a single day, written to a morestat_report.txt file. Report parameters should include information on CPU usage, RAM

statistics, disk usage, and network data. The report should be presented in a more visible format, something easily usable by the **awk** command utility.

Lab 4

In this lab, you'll disable responses to the **ping** command, using kernel settings. (On an exam, it would also be acceptable to disable responses to the **ping** command with the help of the Firewall Configuration tool, but when possible, it's good to know more than one method.)

Lab 5

On the server1.example.com system, set up a custom route to the network with the outsider1.example.org system. Use the same gateway address as the default gateway.

Lab 6

In this lab, you'll set up IPv6 addresses on the virtual machines server1.example.com and tester1.example.com, and on your physical system, using the settings in the following table:

System	**Interface**	**IPv6 Address**
Physical Host	virbr0	2001:db8:7a::1/64
server1.example.com	eth0	2001:db8:7a::50/64
tester1.example.com	eth0	2001:db8:7a::150/64

Lab 7

In this lab, you'll add a second network adapter on tester1.example.com using the virtio type. Then, you will aggregate eth0 and eth1 in a teamed interface named team0, with an IP address of 192.168.122.150/24 and a default gateway of 192.168.122.1.