# Chapter 4 Lab Questions

During the RHCSA exam, 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 4.

## Lab 1

In this lab, you will use the **rpm** command to query RPM packages.

1. On server1.example.com, create a list of all the packages installed on the system and save it to the /root/pkgs.txt file.
2. How many packages are installed on your system?
3. Which package does the file /etc/sestatus.conf belong to?
4. What is the zlib package used for? Which files does it provide?
5. Mount the RHEL 9 DVD. Find the tmux RPM in the BaseOS/Packages/ directory. What is this package used for? Which files does it provide?

## Lab 2

Configure a repository. You must satisfy the following requirements:

1. Configure the repository in a file named sql.repo.
2. Make the name of the repository sql-tools.
3. Set the URL of the repository to https://packages.microsoft.com/rhel/9/prod/.
4. Enable GPG checks, using the key at https://packages.microsoft.com/keys/microsoft.asc.

After configuring the repository, search for and install the mssql-tools package.

## Lab 3

In this lab, you’ll be identifying a potential security problem. Run the following command to change the modified date of the SSH daemon:

# touch /usr/sbin/sshd

Now, imagine that you don’t know that this file was modified. You’ve been given a tip by security staff that the problem is related to a binary file that starts a server.

Identify the binary file that was modified by inspecting *all* the contents of the /usr/sbin directory.

Assume that the problem was more serious, and that the content of the binary was modified. To fix the problem, uninstall and reinstall the associated package.

## Lab 4

This and the following labs require having the server1.example.com system subscribed to Red Hat Subscription Management, as explained on Exercise 4-2. In this lab, you’ll examine what happens when you run an update to upgrade all the packages available. Before you start, run the following command to clear the cache, to enable the full set of messages:

# dnf clean all

Run the following command and review the output:

# dnf update

If a lot of updates are available, this process may take some time. If you want to download and install the updates, use the **-y** switch, which answers “yes” to all prompts. Save the output to a file. The complete command becomes

# dnf update -y > update.txt

After the download and installation is complete, review the update.txt file. Note how it loads information from the repositories, downloads headers, and resolves dependencies.

Once dependencies are resolved, examine where the downloads come from. Note how some packages are installed and how others are updated.

## Lab 5

Find information about group “Graphical Administration Tools.” How many packages does it include? Are they all optional?

Then, install the wireshark package.

## Lab 6

Install the module stream postgresql 15, using the client profile.