**Activity overview**

As a security analyst, you won’t have all the answers all the time, but you can learn where to find them. One of the great things about Linux is that you can get help right through the command line.

In this lab activity, you’ll use the man and whatis commands to get information on other commands and how they work. You’ll also use the apropos command to search the manual page for a command with a specified string.

When working as a security analyst, you'll likely find it useful to know how to discover which command to use or information about what commands do.

With that in mind, let’s explore your scenario.

**Scenario**

In this scenario, you have to find more information about commands that you need to use. You also need to discover which command to use to perform a certain task.

Here’s how you’ll do this task: **First**, you’ll explore a few commands you can use in the shell to learn more about other commands. **Next**, you’ll find an option you need to add to a command. **Third**, you’ll use a command to get a brief description of commands so you can identify their differences. **Finally**, you’ll identify the command you need to perform a task.

It's time to get ready to explore some of the Linux help resources!

**Disclaimer:** For optimal performance and compatibility, it is recommended to use either **Google Chrome** or **Mozilla Firefox** browsers while accessing the labs.

**Start your lab**

Before you begin, you can review the instructions for using the Qwiklabs platform under the **Resources** tab in Coursera.

If you haven't already done so, click **Start Lab**. This brings up the terminal so that you can begin completing the tasks!

When you have completed all the tasks, refer to the **End your Lab** section that follows the tasks for information on how to end your lab.

**Task 1. Learn more about commands**

In this task, you need to explore a few commands you can use in the shell to learn more about the functionality of other commands.

**First**, imagine you can’t quite remember what the cat command does and want a quick reminder.

1. Run the whatis command to get a short description of cat.

The command to complete this step:

whatis cat

Copied!

content\_copy

What are the first two words of the short description of cat returned by whatis?

checkconcatenate files

the cat

file concatenator

cat is

Submit

**Answer**: The first two words of the short description returned are “concatenate files”.

**Next**, imagine that you want more details about cat and all of its options.

1. Use the man command to get more details about cat.

The command to complete this step:

man cat

Copied!

content\_copy

The man command returns a general description of cat and information about each of its options:

CAT(1) User Commands CAT(1)

NAME

cat - concatenate files and print on the standard output

SYNOPSIS

cat [OPTION]... [FILE]...

DESCRIPTION

Concatenate FILE(s) to standard output.

With no FILE, or when FILE is -, read standard input.

-A, --show-all

equivalent to -vET

-b, --number-nonblank

number nonempty output lines, overrides -n

-e equivalent to -vE

--More--

When the first page of information returned by man is displayed, the output pauses.

***Note:****You can output more information one line at a time by pressing the****ENTER****key or output the next page of the manual by pressing the space bar.*

What option can you use to number the output lines of the cat command?

none - it is the default option

check-n, --number

-e, --enumerate

-b, --number-nonblank

Submit

**Answer**: The -n,--number option numbers all the output lines.

1. Press **Q** to exit this manual page.

**Now**, imagine you’ve remembered there’s a command that prints just the first part of a file, but you can’t remember the exact command. The apropos command is useful in these instances. You can use keywords with apropos to find a command.

1. Use apropos to find a command that returns the first part of a file:

apropos -a first part file

Copied!

content\_copy

***Note:****There is no right and wrong when using apropos in terms of keywords. Think of it as a very focused search. It will only return commands that correspond to keywords you supply. Keep trying if the first returned command does not provide what you need. Also, keep in mind that using the -a option will limit results to only those commands that match all keywords supplied.*

Which command returns the first part of a file?

cat

tail

checkhead

list

Submit

**Answer**: The head command returns only the first part of a file.

Click **Check my progress** to verify that you have completed this task correctly.

You have completed this task and explored the whatis, man, and apropos -a commands. These commands can be used to learn more about other commands in the shell.

Learn more about commands

Check my progress

*You have completed this task and explored the whatis, man, and apropos -a commands. These commands can be used to learn more about other commands in the shell.*

**Task 2. Explore the useradd command**

In this task, imagine that you want to set the expiration date for a temporary user account. You know that you need to use the useradd command for this, but you’re not quite sure how to complete the task. You realize it might involve adding an option to the command.

1. Use the most appropriate Linux command to get help on the useradd command and learn more about all of its options.

The command to complete this step:

man useradd

Copied!

content\_copy

***Note:****You can output more information one line at a time by pressing the****ENTER****key or output the next page of the manual by pressing the space bar.*

Which option can be used with the useradd command to set an expiration date for a temporary user account?

-f

check-e

-d

-x

Submit

**Answer**: The -e option can be used to set an expiration date for a temporary user account.

1. Press **Q** to exit this manual page.

Click **Check my progress** to verify that you have completed this task correctly.

You have completed this task and used the man command to explore the useradd command options.

Explore the useradd command

Check my progress

*You have completed this task and used the man command to explore the useradd command options.*

**Task 3. Explore the rm and rmdir commands**

In this task, you need to determine the difference between the rm and rmdir commands.

Imagine that you’ve used these commands before, but you can’t remember how they’re different.

* Use the most appropriate Linux command to quickly remind yourself what each command does.

***Note:****This task will require entering two commands, one with rm and one with rmdir .*

The commands to complete this step:

whatis rm

Copied!

content\_copy

whatis rmdir

Copied!

content\_copy

Which of these commands removes only empty directories?

checkrmdir

rm

Submit

**Answer**: The rmdir command removes only empty directories.

Click **Check my progress** to verify that you have completed this task correctly.

You have completed this task and used the whatis command to get a brief description of the rm and rmdir commands.

Explore the rm and rmdir commands

Check my progress

*You have completed this task and used the whatis command to get a brief description of the rm and rmdir commands.*

**Task 4. Determine which command to use**

In this task, imagine that you need to create a new group but you can’t remember what command to use. You need to identify a command that will do this by searching for it through keywords. In this case, use the keywords create new group.

* Use the most appropriate Linux command with these keywords to identify what command to use.

The correct command to solve this step:

apropos -a create new group

Copied!

content\_copy

What command can you use to create a new group?

addnewgroup

newgroup

checkgroupadd

setsid

Submit

**Answer**: The groupadd can be used to create a new group.

Click **Check my progress** to verify that you have completed this task correctly.

You have completed this task and used the apropos -a command with the keywords “create new group” to identify which command to use to create new groups.

Determine which command to use

Check my progress

*You have completed this task and used the apropos -a command with the keywords “create new group” to identify which command to use to create new groups.*

**Conclusion**

Great work!

You now have practical experience in using basic Linux Bash shell commands to

* get a short description of a command,
* display the man pages for a command, and
* find commands based on keywords about their function.

This ability will be valuable as you navigate the Linux command line.