**Activity overview**

Previously, you learned about Linux and how to communicate with the OS through the shell. You also learned how to use some of the core commands to navigate the Linux file system and read content from files it contains.

These are essential skills. For example, when investigating unauthorized access, you might navigate to and then read a user access report.

In this lab activity, you’ll navigate a Linux file structure, locate files, and read the contents of files. You’ll also need to answer a few multiple-choice questions based on the information contained in these files.

As a security analyst, it’s key that you know how to navigate, manage, and analyze files remotely via a Linux shell without a graphical user interface.

**Scenario**

In this scenario, you have to locate and analyze the information of certain files located in the /home/analyst directory.

Here’s how you’ll do this: **First**, you’ll get the information of the current working directory you’re in and display the contents of the directory. **Second**, you’ll navigate to the reports directory and list the subdirectories it contains. **Third**, you’ll navigate to the users subdirectory and display the contents of the Q1\_added\_users.txt file. **Finally**, you’ll navigate to the logs directory and display the first 10 lines of a file it contains.

To complete these tasks, you'll need to use commands that you've previously learned in this course. Well, it's time to practice what you’ve learned. Let’s do this!

***Note:****The lab starts with your user account, called analyst, already logged in to the Bash shell. This means you can start with the tasks as soon as you click the****Start Lab****button.***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. Get the current directory information**

In this task, you must use the commands you learned about to check the current working directory and list its contents.

1. Display your working directory.
2. Display the names of the files and directories in the current working directory.

Which directory is your current working directory?

check/home/analyst

/home

/home/analyst/logs

/var/logs

Submit

How many directories does the current working directory contain?

checkFour

Five

One

Two

Submit

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

You have completed this task and displayed the current working directory and its contents.

Get the current directory information

Check my progress

*You have completed this task and displayed the current working directory and its contents.*

***Note:****There is no penalty for clicking****Check my progress****and you’ll be shown a hint.*

**Task 2. Change directory and list the subdirectories**

In this task, you must navigate to a new directory and determine the subdirectories it contains.

1. Navigate to the /home/analyst/reports directory.
2. Display the files and subdirectories in the /home/analyst/reports directory.

What is the name of the subdirectory in the /home/analyst/reports directory?

logs

checkusers

projects

analyst

Submit

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

You have completed this task and navigated to the /home/analyst/reports directory and displayed the subdirectory it contains.

Change directory and list the subdirectories

Check my progress

*You have completed this task and navigated to the /home/analyst/reports directory and displayed the subdirectory it contains.*

**Task 3. Locate and read the contents of a file**

In this task, you must navigate to a subdirectory and read the contents of a file it contains.

1. Navigate to the /home/analyst/reports/users directory.
2. List the files in the current directory.
3. Display the contents of the Q1\_added\_users.txt file.

What department does the employee with the username aezra work in?

Sales

checkHuman Resources

Information Technology

Finance

Submit

What is the employee\_id of the user mreed in the Information Technology department?

check1104

1001

1177

1188

Submit

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

You have completed this task and navigated to the /home/analyst/reports/users subdirectory and displayed the contents of the Q1\_added\_users.txt file.

Locate and read the contents of a file

Check my progress

*You have completed this task and navigated to the /home/analyst/reports/users subdirectory and displayed the contents of the Q1\_added\_users.txt file.*

**Task 4. Navigate to a directory and locate a file**

In this task, you must navigate to a new directory, locate a file, and examine the contents of the file.

1. Navigate to the /home/analyst/logs directory.
2. Display the name of the file it contains.
3. Display the first **10** lines of this file.

How many warning messages are in the first 10 lines of the server\_logs.txt file?

Two

One

Six

checkThree

Submit

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

You have completed this task. You have navigated to the /home/analyst/logs directory and used the ls command to return the name of the file it contains. You also used the head command to return the first 10 lines of the server\_logs.txt file.

Navigate to a directory and locate a file

Check my progress

*You have completed this task. You have navigated to the /home/analyst/logs directory and used the ls command to return the name of the file it contains. You also used the head command to return the first 10 lines of the server\_logs.txt file.*

**Conclusion**

Great work!

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

* navigate directory structures with the cd command,
* display the current working directory with the pwd command,
* list the contents of a directory with the ls command, and
* display the contents of files with the cat and head commands.

Navigating through directories and reading file contents are fundamental skills that you’ll often use when communicating through the shell.