

Activity: Find files with Linux commands

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

You'll need to start the lab before you can access the materials. To do this, click the green "Start Lab" button at the top of the screen.



Start Lab

After you click the **Start Lab** button, you will see a shell, where you will be performing further steps in the lab. You should have a shell like this:

```
analyst@63fced8e3bc:~$
```

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?

/var/logs

/home/analyst

/home/analyst/logs

/home

Submit

How many directories does the current working directory contain?

Five

One

Two

Four

Submit

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

Get the current directory information

Check my progress

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?

projects

logs

analyst

users

Submit

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

Change directory and list the subdirectories

Check my progress

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

Finance

Information Technology

Human Resources

Submit

What is the `employee_id` of the user `mreed` in the Information Technology department?

1001

1188

1104

1177

Submit

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

Locate and read the contents of a file

Check my progress

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?

Six

Two

Three

One

Submit

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

Navigate to a directory and locate a file

Check my progress

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.

End your lab

Before you end the lab, make sure you're satisfied that you've completed all the tasks, and follow these steps:

1. Click **End Lab**. A pop-up box will appear. Click **Submit** to confirm that you're done. Ending the lab will remove your access to the Bash shell. You won't be able to access the work you've completed in it again.
2. Another pop-up box will ask you to rate the lab and provide feedback comments. You can complete this if you choose to.
3. Close the browser tab containing the lab to return to your course.
4. Refresh the browser tab for the course to mark the lab as complete.

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