Filter with grep

Skills Acquired:

- Search for specific information contained in files

- Find files containing specific strings that were piped into grep

Scenario:

In this scenario, you need to obtain information contained in server log and user data files. You also need to find files with specific names.

Task 1. Search for error messages in a log file

In this task, you must navigate to the /home/analyst/logs directory and report on the error messages in the server_logs.txt file. You'll do this by using grep to search the file and output only the entries that are for errors.

1. Navigate to the /home/analyst/logs directory.

2. Use grep to filter the server_logs.txt file, and return all lines containing the text string error.

```
analyst@cae4816388d1:~/logs$ cd /home/analyst/logs
analyst@cae4816388d1:~/logs$ ls
server_logs.txt
analyst@cae4816388d1:~/logs$ grep error server_logs.txt
2022-09-28 13:56:22 error    The password is incorrect
2022-09-28 15:56:22 error    The username is incorrect
2022-09-28 16:56:22 error    The password is incorrect
2022-09-29 13:56:22 error    An unexpected error occurred
2022-09-29 15:56:22 error    Unauthorized access
2022-09-29 16:56:22 error    Unauthorized access
analyst@cae4816388d1:~/logs$
```

Task 2. Find files containing specific strings

In this task, you must navigate to the /home/analyst/reports/users directory and use the correct Linux commands and arguments to search for user data files that contain a specific string in their names.

1. Navigate to the /home/analyst/reports/users directory.

2. Using the pipe character (|), pipe the output of the ls command to the grep command to list only the files containing the string Q1 in their names.

3. List the files that contain the word access in their names.

```
analyst@cae4816388d1:~/logs$ cd /home/analyst/reports/users
analyst@cae4816388d1:~/reports/users$ ls | grep Q1
Q1_access.txt
Q1_added_users.txt
Q1_deleted_users.txt
analyst@cae4816388d1:~/reports/users$ ls |grep access
Q1_access.txt
Q2_access.txt
Q3_access.txt
Q4_access.txt
analyst@cae4816388d1:~/reports/users$
```

Task 3. Search more file contents

In this task, you must search for information contained in user files and report on users that were added and deleted from the system.

1. Display the files in the /home/analyst/reports/users directory.

2. Search the Q2_deleted_users.txt file for the username jhill.

3. Search the Q4_added_users.txt file to list the users who were added to the Human Resources department.

```
analyst@cae4816388d1:~/reports/users$ ls
Q1_access.txt          Q2_added_users.txt     Q3_deleted_users.txt
Q1_added_users.txt     Q2_deleted_users.txt   Q4_access.txt
Q1_deleted_users.txt   Q3_access.txt          Q4_added_users.txt
Q2_access.txt          Q3_added_users.txt     Q4_deleted_users.txt
analyst@cae4816388d1:~/reports/users$ grep jhill Q2_deleted_users.txt
1025        jhill      Sales
analyst@cae4816388d1:~/reports/users$ grep Human Resources Q4_added_users.txt
grep: Resources: No such file or directory
Q4_added_users.txt:1151          sshah      Human Resources
Q4_added_users.txt:1145          msosa      Human Resources
analyst@cae4816388d1:~/reports/users$ 
```