

Linux CLI

Database and Files Navigation, Linux Searching and Filtering, Users and Permissions Management

```
analyst@3b4b63eadce5:~$ cd reports
analyst@3b4b63eadce5:~/reports$ ls
users
analyst@3b4b63eadce5:~/reports$ cd /home/analyst/reports/users
analyst@3b4b63eadce5:~/reports/users$ ls
Q1_added_users.txt  Q1_deleted_users.txt
analyst@3b4b63eadce5:~/reports/users$ less^C
analyst@3b4b63eadce5:~/reports/users$ ls Q1_added_users.txt
Q1_added_users.txt
analyst@3b4b63eadce5:~/reports/users$ less Q1_added_users.txt
-bash: less: command not found
analyst@3b4b63eadce5:~/reports/users$ cat Q1_added_users.txt
employee_id  username  department
1001         bmoreno  Marketing
1026         apatel   Human Resources
1041         cgriffin Sales
1104         mreed    Information Technology
1177         aezra    Human Resources
1188         noshiro  Finance
analyst@3b4b63eadce5:~/reports/users$ cd /home/analyst/logs
analyst@3b4b63eadce5:~/logs$ ls
server_logs.txt
analyst@3b4b63eadce5:~/logs$ head -n 10 server_logs.txt
2022-09-28 13:55:55 info    User logged on successfully
2022-09-28 13:56:22 error   The password is incorrect
2022-09-28 13:56:48 warning The file storage is 75% full
2022-09-28 15:55:55 info    User logged on successfully
2022-09-28 15:56:22 error   The username is incorrect
2022-09-28 15:56:48 warning The file storage is 90% full
2022-09-28 16:55:55 info    User navigated to settings page
2022-09-28 16:56:22 error   The password is incorrect
2022-09-28 16:56:48 warning The current user's password expires in 15 days
2022-09-29 13:55:55 info    User logged on successfully
analyst@3b4b63eadce5:~/logs$
```

Figure 1 Database and Files Navigation

```
analyst@c268b1698ffa:~$ cd logs
analyst@c268b1698ffa:~/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@c268b1698ffa:~/logs$ pwd
/home/analyst/logs
analyst@c268b1698ffa:~/logs$ cd /home/analyst/reports/users
analyst@c268b1698ffa:~/reports/users$ ls | grep Q1
Q1_access.txt
Q1_added_users.txt
Q1_deleted_users.txt
analyst@c268b1698ffa:~/reports/users$ ls | grep access
Q1_access.txt
Q2_access.txt
Q3_access.txt
Q4_access.txt
analyst@c268b1698ffa:~/reports/users$ ls /home/analyst/reports/users
Q1_access.txt      Q1_deleted_users.txt  Q2_added_users.txt   Q3_access.txt        Q3_deleted_users.txt  Q4_added_users.txt
Q1_added_users.txt Q2_access.txt         Q2_deleted_users.txt Q3_added_users.txt   Q4_access.txt         Q4_deleted_users.txt
analyst@c268b1698ffa:~/reports/users$ find Q4_added_users.txt
Q4_added_users.txt
analyst@c268b1698ffa:~/reports/users$ grep "Human Resources" Q4_added_users.txt
1151      sshah    Human Resources
1145      msosa    Human Resources
analyst@c268b1698ffa:~/reports/users$ grep jhill Q2_deleted_users.txt
1025      jhill    Sales
analyst@c268b1698ffa:~/reports/users$
```

Figure 2 Linux Searching and Filtering

```

-rw-r--r-- 1 researcher2 research_team 46 Jun 7 16:59 project_m.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_r.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_L.txt
researcher2@963f99alc3d8:~/projects$ chmod g-w .project_x.txt
researcher2@963f99alc3d8:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 16:59 .
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 17:49 ..
-r----- 1 researcher2 research_team 46 Jun 7 16:59 .project_x.txt
drwx-x-- 2 researcher2 research_team 4096 Jun 7 16:59 drafts
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_k.txt
-rw-r--r-- 1 researcher2 research_team 46 Jun 7 16:59 project_m.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_r.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_L.txt
researcher2@963f99alc3d8:~/projects$ chmod g+r .project_x.txt
researcher2@963f99alc3d8:~/projects$ cd /home/researcher2/projects/drafts
researcher2@963f99alc3d8:~/projects/drafts$ ls -la
total 8
drwx-x-- 2 researcher2 research_team 4096 Jun 7 16:59 .
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 16:59 ..
researcher2@963f99alc3d8:~/projects/drafts$ cd /home/researcher2/projects/
researcher2@963f99alc3d8:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 16:59 .
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 17:49 ..
-r--r--r-- 1 researcher2 research_team 46 Jun 7 16:59 .project_x.txt
drwx-x-- 2 researcher2 research_team 4096 Jun 7 16:59 drafts
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_k.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_m.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_r.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_L.txt
researcher2@963f99alc3d8:~/projects$ chmod g-x drafts
researcher2@963f99alc3d8:~/projects$ ls -la
total 32
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 16:59 .
drwxr-xr-x 3 researcher2 research_team 4096 Jun 7 17:49 ..
-r--r--r-- 1 researcher2 research_team 46 Jun 7 16:59 .project_x.txt
drwx-x-- 2 researcher2 research_team 4096 Jun 7 16:59 drafts
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_k.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_m.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_r.txt
-rw-rw-r-- 1 researcher2 research_team 46 Jun 7 16:59 project_L.txt
researcher2@963f99alc3d8:~/projects$

```

Figure 3 Users and Permissions Management