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Logging exercises fifth group

Prerequisites

- Internet Connection
- Ubuntu Server 22.04
- SSH from your Host OS to your VM Linux Server
- Download the **`passwords.txt`** file from the BTA github to your host OS
- Get the **`passwords.txt`** file to your Linux server Home Folder

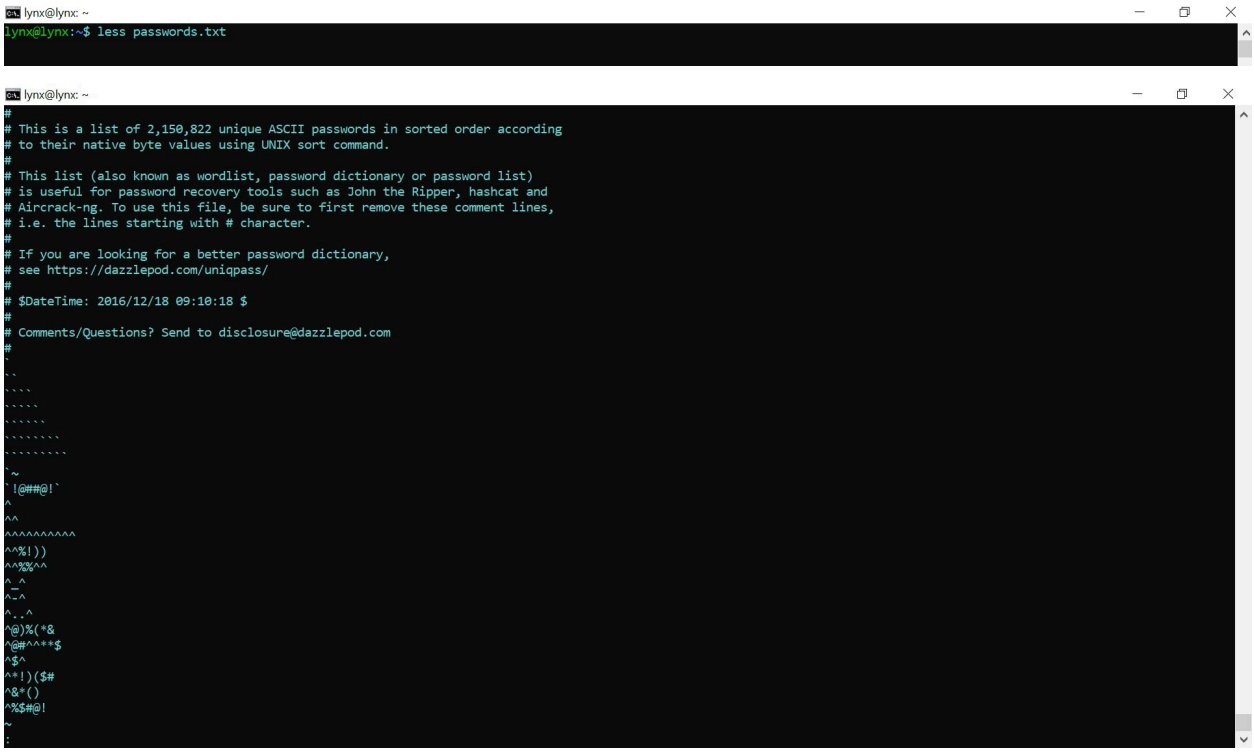
Exercise 16

Task #1

`cat passwords.txt`

Task #2

`less passwords.txt`



Task #3

`fgrep "123456" passwords.txt`

- What did that do?
  It gave us a big output of passwords and highlighted on red “123456”

- Explain what just happened.
  We used fgrep to find all the lines of a line that contain “123456” on passwords.txt.

Exercise 17

Task #1

`vim passwords.txt`

Add “**1234567890_from_first_file**” to the end of the file after the zzz not a new line.

Task #2

- Create a copy of the first file, as passwords2.txt

- Edit the second file.
  - Change the last line to “**1234567890_from_second_file**”

Task #3

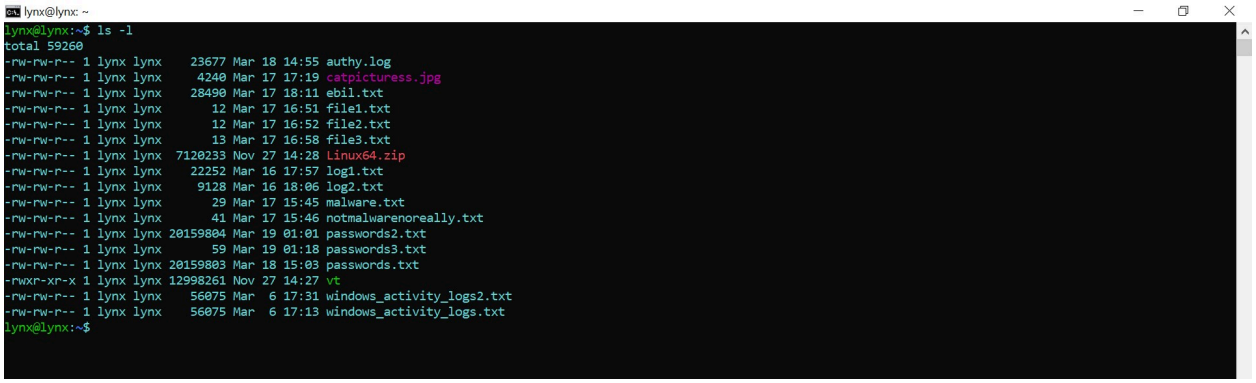
fgrep 1234567890_ passw*

- What did that do?
  It gave us a short output from 3 different text files, and it showed us on which lines “1234567890_ shows up. I can see those are the files that I modified on vim with insert mode.
- Explain what just happened.
  What happened was really interesting. We used fgrep to find all the lines that contain “1234567890_”, and we used a wildcard at the end of passw. With * we tell the server to look for “1234567890_” in txt vfiles that start with passw.

Exercise 18

Task #1

`fgrep 1234567890_ passwords.txt > passwords3.txt`



- What did that do?
  It redirected the output of to **`fgrep 1234567890_ passwords.txt`** to **`passwords3.txt`**

- Explain what just happened.
  > redirects the output of fgrep and sends it to a new txt file.

Task #2

`cat passwords3.txt`

- What did that do?
  After I concatenate passwords3.txt I see a small output that shows on which lines in passwords .tx does “1234567890_” shows up.

- Explain what just happened.
  We redirected **`fgrep 1234567890_ passwords.txt`** to a new file.
  By using cat, we can see the contents of passwords3.txt.

Task #3

`fgrep -c 1234567890_ passw*`

- What did that do?
  It gave us a short output that includes a count of how many lines does “123456790_” exist in those 3 txt files.

- Explain what just happened.
  We used fgrep to find all the lines that contain “1234567890_”, and we used a wildcard at the end of passw. With * we tell the server to look for “1234567890_” in txt files that start with passw. And -c gives us an exact count.

Task #4

`fgrep -w 1234567890_ passw*`

- What did that do?
  It gave us a short output that includes on which lines does “123456790_” literally exist in those 3 txt files.

- Explain what just happened.
  We used fgrep to find all the lines that contain “1234567890_”, and we used a wildcard at the end of passw. With * we tell the server to look for “1234567890_” in txt files that start with passw. The -w option gives us exactly where “1234567890_” is included as a separate “word” or string.

Task #5

```
fgrep -n 1234567890_ passw*
```

- What did that do?
  It gave us a short output, and highlighting in green the line numbers of the match of "1234567890_"
- Explain what just happened.
  We used fgrep with the -n option to get the line numbers that contain "1234567890_" in the 3 txt files.

Exercise 19

Task #1

```
grep -E "[0-9]{10}_from" passwords.txt
```

- What did that do?
  We get a single line output of an extended regular expression (ERE) that we are trying to match in the password.txt file

- Explain what just happened.
  Grep -E option interprets the pattern as an (ERE), enhancing grep's capabilities. Then we use a regex `"[0-9]{10}_from"` that we are trying to match from passwords.txt.

Task #2

```
grep -E "[0-9]{10}_from" passwords*.txt
```

- What did that do?
  We get a single line output of an extended regular expression (ERE) that we are trying to match from all files the start with password and end with .txt
- Explain what just happened.
  Grep -E option interprets the pattern as an (ERE), enhancing grep's capabilities. Then we use a regex `"[0-9]{10}_from"` that we are trying to match all files that start with passwords, and end with .txt

Exercise 20

```
lynx@lynx: ~
lynx@lynx:~$ cat authy.log
Mar 10 00:00:55 server1 sshd[4422]: Received disconnect from 10.0.2.2 port 60950:11: disconnected by user
Mar 10 00:00:55 server1 sshd[4422]: Disconnected from user ajay 10.0.2.2 port 60950
Mar 10 00:00:55 server1 sshd[4366]: pam_unix(sshd:session): session closed for user ajay
Mar 10 00:00:55 server1 systemd-logind[710]: Session 13 logged out. Waiting for processes to exit.
Mar 10 00:00:55 server1 systemd-logind[710]: Removed session 13.
Mar 10 00:00:55 server1 sshd[3878]: Received disconnect from 10.0.2.2 port 61128:11: disconnected by user
Mar 10 00:00:55 server1 sshd[3878]: Disconnected from user ajay 10.0.2.2 port 61128
Mar 10 00:00:55 server1 sshd[3822]: pam_unix(sshd:session): session closed for user ajay
Mar 10 00:00:55 server1 systemd-logind[710]: Session 5 logged out. Waiting for processes to exit.
Mar 10 00:00:55 server1 sshd[4043]: Received disconnect from 10.0.2.2 port 62494:11: disconnected by user
Mar 10 00:00:55 server1 sshd[4043]: Disconnected from user ajay 10.0.2.2 port 62494
Mar 10 00:00:55 server1 sshd[3987]: pam_unix(sshd:session): session closed for user ajay
Mar 10 00:00:55 server1 systemd-logind[710]: Removed session 5.
Mar 10 00:00:55 server1 systemd-logind[710]: Session 7 logged out. Waiting for processes to exit.
Mar 10 00:00:55 server1 systemd-logind[710]: Removed session 7.
Mar 10 00:01:00 server1 systemd-logind[710]: Power key pressed.
Mar 10 00:01:00 server1 systemd-logind[710]: Powering Off...
Mar 10 00:01:00 server1 systemd-logind[710]: System is powering down.
Mar 10 00:23:02 server1 systemd-logind[714]: New seat seat0.
Mar 10 00:23:02 server1 sshd[764]: Server listening on 0.0.0.0 port 22.
Mar 10 00:23:02 server1 sshd[764]: Server listening on :: port 22.
Mar 10 00:23:02 server1 systemd-logind[714]: Watching system buttons on /dev/input/event0 (Power Button)
Mar 10 00:23:02 server1 systemd-logind[714]: Watching system buttons on /dev/input/event1 (Sleep Button)
Mar 10 00:23:02 server1 systemd-logind[714]: Watching system buttons on /dev/input/event2 (AT Translated Set 2 keyboard)
Mar 10 01:17:01 server1 CRON[1035]: pam_unix(cron:session): session opened for user root(uid=0) by (uid=0)
Mar 10 01:17:01 server1 CRON[1035]: pam_unix(cron:session): session closed for user root
Mar 10 02:17:01 server1 CRON[1101]: pam_unix(cron:session): session opened for user root(uid=0) by (uid=0)
Mar 10 02:17:01 server1 CRON[1101]: pam_unix(cron:session): session closed for user root
Mar 10 02:27:09 server1 login[763]: pam_unix(login:session): session opened for user ajay(uid=1000) by LOGIN(uid=0)
Mar 10 02:27:09 server1 systemd-logind[714]: New session 3 of user ajay.
Mar 10 02:27:09 server1 systemd: pam_unix(systemd-user:session): session opened for user ajay(uid=1000) by (uid=0)
Mar 10 02:27:31 server1 sshd[1220]: Accepted password for ajay from 10.1.10.243 port 58204 ssh2
Mar 10 02:27:31 server1 sshd[1220]: pam_unix(sshd:session): session opened for user ajay(uid=1000) by (uid=0)
Mar 10 02:27:31 server1 systemd-logind[714]: New session 5 of user ajay.
Mar 18 02:25:31 server1 sshd[801]: Accepted password for robert from 10.0.0.10 port 52020 ssh2
Mar 18 02:25:31 server1 sshd[801]: pam_unix(sshd:session): session opened for user robert(uid=1001) by (uid=0)
Mar 18 02:26:45 server1 sshd[804]: Failed password for tara from 10.0.0.11 port 52022 ssh2
Mar 18 02:27:00 server1 sshd[807]: Accepted password for tara from 10.0.0.11 port 52025 ssh2
Mar 18 02:27:00 server1 sshd[807]: pam_unix(sshd:session): session opened for user tara(uid=1002) by (uid=0)
Mar 18 02:28:10 server1 sudo:     robert : TTY=pts/1 ; PWD=/home/robert ; USER=root ; COMMAND=/usr/bin/apt update
```

Task #1

- Using authy.log determine why there was a service interruption on our website.

```
lynx@lynx: ~
lynx@lynx:~$ grep apache2 authy.log
Mar 18 02:31:05 server1 sudo:     tara : TTY=pts/2 ; PWD=/home/tara ; USER=root ; COMMAND=/bin/systemctl shutdown apache2
lynx@lynx:~$
```

- Explain what just happened.

I used grep to find out an entry line that has apache2. I can see apache2 was shutdown by tara as a root user.

Task #2

- Using authy.log determine by who was this done?

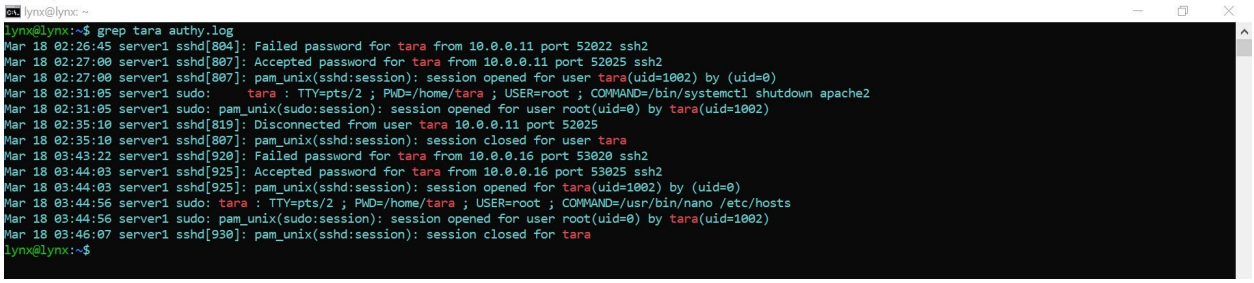
```
lynx@lynx: ~
lynx@lynx:~$ grep apache2 authy.log
Mar 18 02:31:05 server1 sudo:     tara : TTY=pts/2 ; PWD=/home/tara ; USER=root ; COMMAND=/bin/systemctl shutdown apache2
lynx@lynx:~$
```

- Explain what just happened.

It looks like it was done by tara

Task #3

- Using authy.log determine from where was this done from?



- Explain what just happened.
  By using grep tara, i can see it was done from 10.0.0.11