

Challenge 1

The screenshot shows a web browser window with a LabEx challenge titled "Challenge 1". The interface includes a sidebar with instructions and an objective, a main terminal area, and a bottom status bar. A modal window in the center displays a green checkmark and the word "PASS", along with the message "Congratulations! You have completed the challenge!". Below the modal are two buttons: "BackLab" and "StopLab". The terminal area shows a list of system services and their configurations, including systemd-timesyncd, systemd-network, systemd-resolve, systemd-bus-proxy, apt, messagebus, colord, sshd, pulse, rtkit, usbmux, shiyanlou, labex, mysql, mongodb, redis, jack, and bob. The status bar at the bottom indicates the current file is "/etc/passwd" and shows line 36, column 39.

Objective

Requirements for the two new accounts:

Account 1

1. Username: jack
2. Home directory: /home/jack
3. User jack uses zsh by default.
4. User jack belongs to `labex` user group as well as `dev` user group.

Account 2

1. Username: bob
2. Home directory: /home/bob
3. User bob uses bash by default.
4. User bob belongs to `labex` user group as well as `test` user group.

Tips

I'm labex. I have sudo authority. I use zsh. I belong to `labex` user group.

Outline

- Linux user creation and configuration
- Linux user group creation and addition

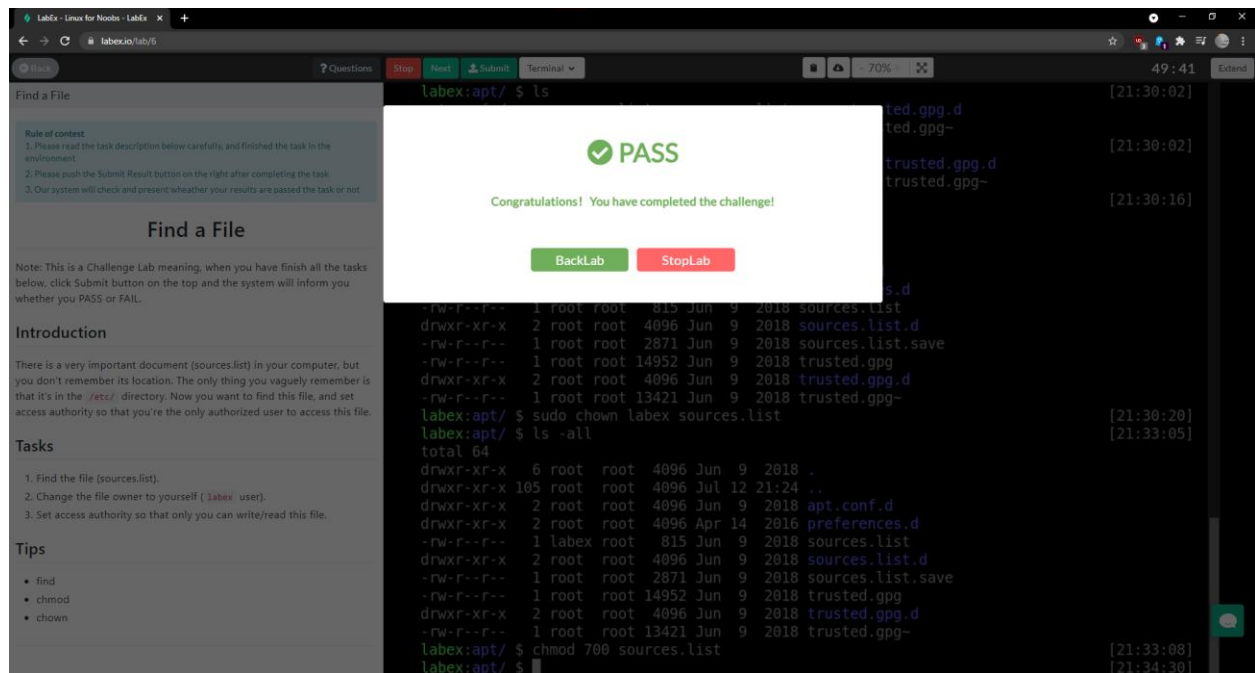
Terminal Output:

```
7 man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
19 systemd-timesyncd:x:100:102:systemd Time Synchronization,,,:/run/systemd:/bin/false
20 systemd-network:x:101:103:systemd Network Management,,,:/run/systemd/netif:/bin/false
21 systemd-resolve:x:102:104:systemd Resolver,,,:/run/systemd/resolve:/bin/false
22 systemd-bus-proxy:x:103:105:systemd Bus Proxy,,,:/run/systemd:/bin/false
23 apt:x:104:65534::/nonexistent:/bin/false
24 messagebus:x:105:108::/var/run/dbus:/bin/false
25 colord:x:106:112:colord colour management daemon,,:/var/lib/colord:/bin/false
26 sshd:x:107:65534::/var/run/sshd:/usr/sbin/nologin
27 pulse:x:108:113:PulseAudio daemon,,:/var/run/pulse:/bin/false
28 rtkit:x:109:115:RealtimeKit,,,:/proc:/bin/false
29 usbmux:x:110:46:usbmux daemon,,:/var/lib/usbmux:/bin/false
30 shiyanlou:x:5000:5000::/home/shiyanlou:/usr/bin/zsh
31 labex:x:6000:6000::/home/labex:/usr/bin/zsh
32 mysql:x:111:116:MySQL Server,,,:/bin/false
33 mongodb:x:112:65534::/home/mongodb:/bin/false
34 redis:x:113:118::/var/lib/redis:/bin/false
35 jack:x:1000:1000:::/home/jack:/bin/zsh
36 bob:x:1001:1001:::/home/bob:/bin/bash
/etc/passwd [utf-8] 36,39 Bot
```

- Used sudo adduser for jack and for bob account creation
- Used sudo groupadd for dev and test group
- Used sudo usermod -a -G to add users to respective groups. Must have -a flag or it will just mod instead of add.
- Used sudo vi /etc/passwd, followed by I for edit mode, to edit the user's default shell. ESC to end mode and ZZ to save + quit command.

Googled how to use simple aspects of vi as I mainly use nano.

Challenge 2

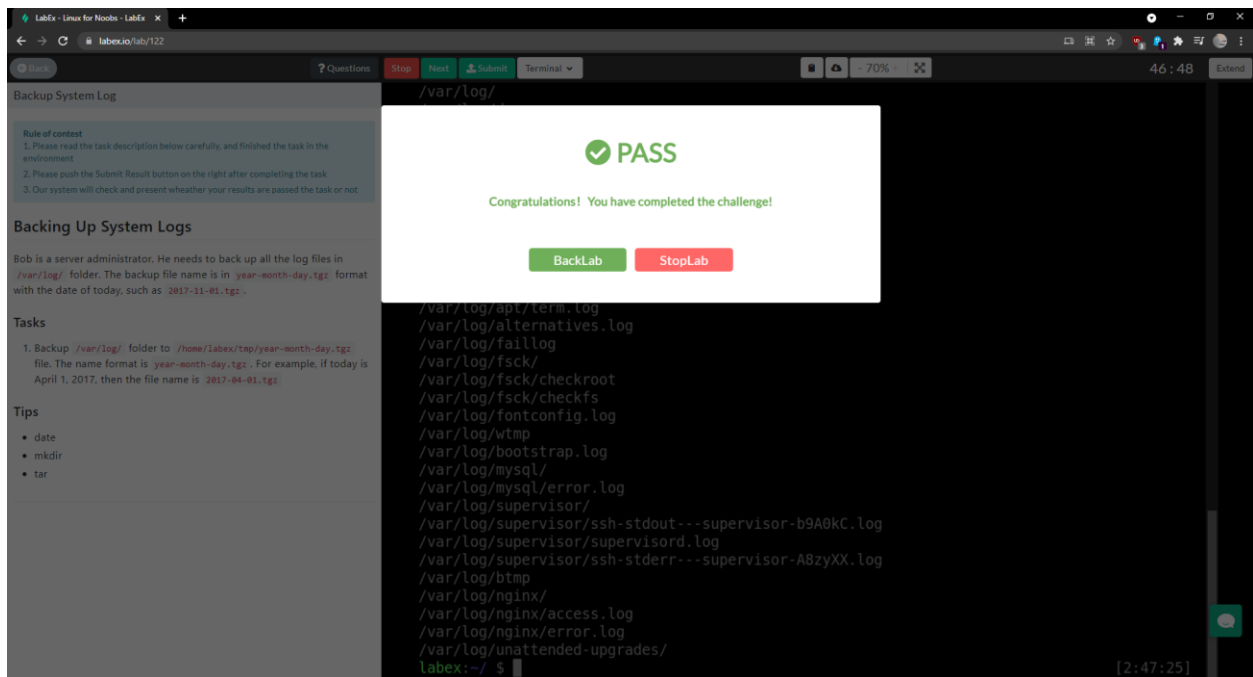


Had difficulties using find using sudo, so I switched to root

- Used sudo su, followed by find /etc -name *list
- Utilized ownership change through sudo chown labex source.list
- Changed the file access using chmod to 700 for source.list

Source: <https://www.linux.com/topic/desktop/how-search-files-linux-command-line/>

Challenge 3



First googled the date command function parameter usage because man is hard to read. Want to use date as a variable.

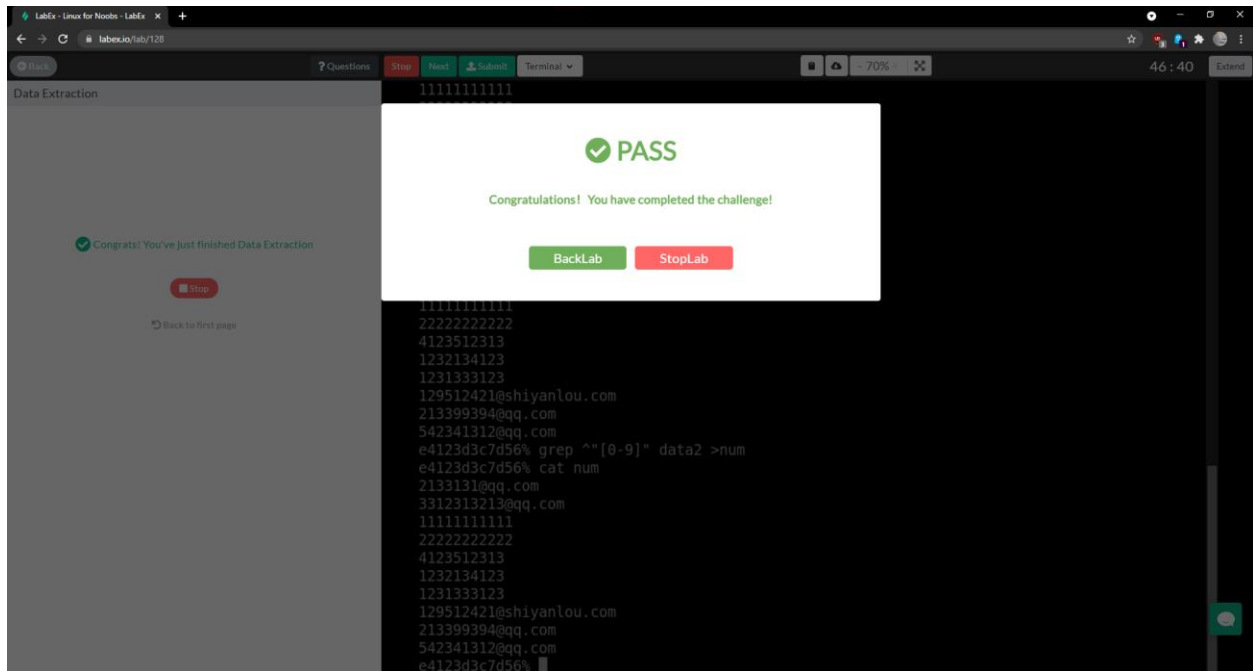
Created folder using mkdir tmp .

Var log is system level, so sudo needed.

Used the command `tar -cjvf ./tmp/$(date "+Y%-m-%d").tgz /var/log` to create compressed zip with output name of the current date of the var log folder to the temp folder.

Source: <https://www.geeksforgeeks.org/date-command-linux-examples/>

Challenge 5



Pulled data using the wget command.

For mail, I used `grep @ data` to grab all lines with a `@` in it because after using `cat` to view the content, it didn't show any complex patterns that required multiple parameters. For the opposite you can do `grep -v "@" data2`.

For Num, I used `^` in the beginning along with `[0-9]`, so it looks like `grep ^[0-9] data2`. This searches for all lines with a range of 0-9 as the first character and prints them out. The assignment did not ask for exclusions such as emails.

Last, I used `> "file"` to print to file.

Source: <https://www.cyberciti.biz/faq/grep-regular-expressions/>