C03: Linux 101

Friday, December 22, 2023   11:31 PM

Difficulty: Level 1
Visit Ginger Breddie in Santa's Shack on Christmas Island to help him with some basic Linux tasks. It's in the southwest corner of Frosty's Beach.

| CONVERSATION w/ Elf Ginger Breddie | **Ginger Breddie (Santa's Surf Shack)**
Hey, welcome to Santa's Surf Shack on tropical Christmas Island! I'm just hanging ten here, taking it easy while brushing up on my Linux skills.
You ever tried getting into Linux? It's a super cool way to play around with computers.
Can you believe ChatNPT suggested this trip to the Geese Islands this year? I'm so thrilled!
Kudos to ChatNPT, eh? The sunshine, the waves, and my surfboard – simply loving it!
So, what do you have planned? Care to join me in a Linux session?

** ------- Response after completing challenge ------- **
Wow, if your surfing skills are as good as your Linux skills, you could be winning competitions!

From <https://2023.holidayhackchallenge.com/badge?section=conversation&id=gingerbreddie> |
| HINTS | |

The North Pole 🎁 Present Maker:
All the presents on this system have been stolen by trolls. Capture trolls by following instructions here and 🎁's will appear in the green bar below. Run the command "hintme" to receive a hint.

MY WORK AND ANSWER
This challenge provided a good refresher on Linux commands. I leveraged MS AI tool to help with the command line involving file size.

Perform a directory listing of your home directory to find a troll and retrieve a present!	elf@2772f35fef52:~$ ls -la total 68 drwxr-xr-x 1 elf elf 4096 Dec 2 22:19 . drwxr-xr-x 1 root root 4096 Dec 2 22:19 .. -rw-r--r-- 1 elf elf 28 Dec 2 22:19 .bash_history -rw-r--r-- 1 elf elf 220 Feb 25 2020 .bash_logout -rw-r--r-- 1 elf elf 3105 Nov 20 18:04 .bashrc -rw-r--r-- 1 elf elf 807 Feb 25 2020 .profile -rw-r--r-- 1 elf elf 168 Nov 20 18:04 HELP -rw-r--r-- 1 elf elf 24 Dec 2 22:19 troll_19315479765589239 drwxr-xr-x 1 elf elf 24576 Dec 2 22:19 workshop
Now find the troll inside the troll.	elf@2772f35fef52:~$ cat troll_19315479765589239 troll_24187022596776786
Great, now remove the troll in your home directory.	elf@2772f35fef52:~$ rm troll_19315479765589239
Print the present working directory.	elf@2772f35fef52:~$ pwd /home/elf
Good job but it looks like another troll hid itself in your home directory. Find the hidden troll!	elf@2772f35fef52:~$ ls -la total 64 drwxr-xr-x 1 elf elf 4096 Dec 23 12:43 . drwxr-xr-x 1 root root 4096 Dec 2 22:19 .. -rw-r--r-- 1 elf elf 28 Dec 2 22:19 .bash_history -rw-r--r-- 1 elf elf 220 Feb 25 2020 .bash_logout -rw-r--r-- 1 elf elf 3105 Nov 20 18:04 .bashrc -rw-r--r-- 1 elf elf 807 Feb 25 2020 .profile -rw-r--r-- 1 elf elf 0 Dec 23 12:43 .troll_5074624024543078 -rw-r--r-- 1 elf elf 168 Nov 20 18:04 HELP drwxr-xr-x 1 elf elf 24576 Dec 2 22:19 workshop

Excellent, now find the troll in your command history.	elf@2772f35fef52:~$ history
	  1 echo troll_9394554126440791
	  2 ls -la
	  3 cat troll_19315479765589239
	  4 rm troll_19315479765589239
	  5 pwd
	  6 ls -la

Find the troll in your environment variables.	elf@2772f35fef52:~$ emv **_TROLL=troll_20249649541603754** HOME=/home/elf LANG=C.UTF-8 LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;31:*.arc=01;31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lz4=01;31:*.lzh=01;31:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:*.lz=01;31:*.lzo=01;31:*.xz=01;31:*.zst=01;31:*.tzst=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ace=01;31:*.zoo=01;31:*.cpio=01;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wim=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.xbm=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;35:*.webm=01;35:*.ogm=01;35:*.mp4=01;35:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01;35:*.nuv=01;35:*.wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avi=01;35:*.fli=01;35:*.flv=01;35:*.gl=01;35:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mid=00;36:*.midi=00;36:*.mka=00;36:*.mp3=00;36:*.mpc=00;36:*.ogg=00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36: HHCUSERNAME=LadyCee AREA=cisantassurfshack BPUSERHOME=/home/elf LESSCLOSE=/usr/bin/lesspipe %s %s TERM=screen LESSOPEN=| /usr/bin/lesspipe %s USER=elf TOKENS= TMUX_PANE=%2 BPUSER=elf SHLVL=3 LC_ALL=C.UTF-8 PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin:/usr/games:/usr/local/games:/snap/bin MAIL=/var/mail/elf LOCATION=9,1 _=/usr/bin/env
Next, head into the workshop	elf@2772f35fef52:~$ **cd workshop** elf@2772f35fef52:~/workshop$
A troll is hiding in one of the workshop toolboxes. Use "grep" while ignoring case to find which toolbox the troll is in. Multiple toolboxes found via a poking around the directory structure (see bottom of page)	elf@2772f35fef52:~/workshop$ **grep -li "troll" *** grep: electrical: Is a directory **toolbox_191.txt** elf@2772f35fef52:~/workshop$ elf@2772f35fef52:~/workshop$ **cat toolbox_191.txt** **tRoLl.4056180441832623**
A troll is blocking the present_engine from starting. Run the present_engine binary to retrieve this troll. *Make the binary executable by running "chmod 755 <filename>". Each number (7,5,5) represents (owner,group,everyone) and each is the sum of the desired permissions (4=read, 2 =write, 1=executable).* *To start the program from the current directory run "./present_engine". A backup of this file is at /opt/present_engine.*	elf@2772f35fef52:~/workshop$ ./present_engine bash: ./present_engine: Permission denied elf@2772f35fef52:~/workshop$ ls -l ./present_engine -r--r--r-- 1 elf elf 4990336 Dec 2 22:19 ./present_engine elf@2772f35fef52:~/workshop$ **chmod 755 ./present_engine** elf@2772f35fef52:~/workshop$ ls -l ./present_engine -rwxr-xr-x 1 elf elf 4990336 Dec 2 22:19 ./present_engine elf@2772f35fef52:~/workshop$ ./present_engine **troll.898906189498077**
Trolls have blown the fuses in /home/elf/workshop/electrical. cd into electrical and rename blown_fuse0 to fuse0.	elf@2772f35fef52:~/workshop$ cd electrical elf@2772f35fef52:~/workshop/electrical$ **mv blown_fuse0 fuse0** elf@2772f35fef52:~/workshop/electrical$ ls -la total 20 drwxr-xr-x 1 elf elf 4096 Dec 23 13:05 . drwxr-xr-x 1 elf elf 4096 Dec 2 22:19 .. -rw-r--r-- 1 elf elf 200 Dec 2 22:19 fuse0
Now, make a symbolic link (symlink) named fuse1 that points to fuse0	elf@2772f35fef52:~/workshop/electrical$ **ln -s fuse0 fuse1** elf@2772f35fef52:~/workshop/electrical$ ls -la total 20

	total 20 drwxr-xr-x 1 elf elf 4096 Dec 23 13:08 . drwxr-xr-x 1 elf elf 4096 Dec 2 22:19 .. -rw-r--r-- 1 elf elf 200 Dec 2 22:19 fuse0 lrwxrwxrwx 1 elf elf 5 Dec 23 13:08 fuse1 -> fuse0
Make a copy of fuse1 named fuse2.	elf@2772f35fef52:~/workshop/electrical$ cp fuse1 fuse2 elf@2772f35fef52:~/workshop/electrical$ ls -la total 24 drwxr-xr-x 1 elf elf 4096 Dec 23 13:09 . drwxr-xr-x 1 elf elf 4096 Dec 2 22:19 .. -rw-r--r-- 1 elf elf 200 Dec 2 22:19 fuse0 lrwxrwxrwx 1 elf elf 5 Dec 23 13:08 fuse1 -> fuse0 -rw-r--r-- 1 elf elf 200 Dec 23 13:09 fuse2

We need to make sure trolls don't come back. Add the characters "TROLL_REPELLENT" into the file fuse2.	elf@2772f35fef52:~/workshop/electrical$ echo "TROLL_REPELLENT" >> fuse2
	elf@2772f35fef52:~/workshop/electrical$ cat fuse2
	
	elf@2772f35fef52:~/workshop/electrical$ cat fuse2
	l9 #PbZʊ
	    ,ZJ
	ubĽ>2YB~$"y+o((5Mc\jx4@쮐yp@]?
	L
	  2sIA_X⬚*!
	r&0;0%))&<mX(ˊ[TROLL_REPELLENT

Find the troll somewhere in /opt/troll_den.	Changes directories and did list until found folder opt elf@2772f35fef52:/home$ cd .. elf@2772f35fef52:/$ ls -la total 88 drwxr-xr-x 1 root root 4096 Dec 23 12:38 . drwxr-xr-x 1 root root 4096 Dec 23 12:38 .. -rwxr-xr-x 1 root root 0 Dec 23 12:38 .dockerenv lrwxrwxrwx 1 root root 7 Nov 28 02:03 bin -> usr/bin drwxr-xr-x 2 root root 4096 Apr 15 2020 boot drwxr-xr-x 5 root root 360 Dec 23 12:38 dev drwxr-xr-x 1 root root 4096 Dec 23 12:38 etc drwxr-xr-x 1 root root 4096 Dec 2 22:19 home lrwxrwxrwx 1 root root 7 Nov 28 02:03 lib -> usr/lib lrwxrwxrwx 1 root root 9 Nov 28 02:03 lib32 -> usr/lib32 lrwxrwxrwx 1 root root 9 Nov 28 02:03 lib64 -> usr/lib64 lrwxrwxrwx 1 root root 10 Nov 28 02:03 libx32 -> usr/libx32 drwxr-xr-x 2 root root 4096 Nov 28 02:03 media drwxr-xr-x 2 root root 4096 Nov 28 02:03 mnt drwxr-xr-x 1 root root 4096 Dec 2 22:19 opt dr-xr-xr-x 200 root root 0 Dec 23 12:38 proc drwx------ 1 root root 4096 Dec 2 22:19 root drwxr-xr-x 1 root root 4096 Nov 28 02:06 run lrwxrwxrwx 1 root root 8 Nov 28 02:03 sbin -> usr/sbin drwxr-xr-x 2 root root 4096 Nov 28 02:03 srv dr-xr-xr-x 13 root root 0 Dec 23 12:38 sys drwxrwxrwt 1 root root 4096 Dec 23 13:02 tmp drwxr-xr-x 1 root root 4096 Nov 28 02:03 usr drwxr-xr-x 1 root root 4096 Dec 2 22:19 var elf@2772f35fef52:/$ cd opt elf@2772f35fef52:/opt$ cd troll_den elf@2772f35fef52:/opt/troll_den$ grep -li "troll" * LICENSE grep: apps: Is a directory grep: assembly: Is a directory grep: bom: Is a directory grep: bundles: Is a directory grep: core: Is a directory grep: plugins: Is a directory grep: src: Is a directory elf@2772f35fef52:/opt/troll_den$ find /opt/troll_den -iname '*troll*' /opt/troll_den /opt/troll_den/plugins/embeddedjsp/src/main/java/org/apache/struts2/jasper/compiler/ParserController.java /opt/troll_den/apps/showcase/src/main/resources/tRoLl.6253159819943018

	/opt/troll_den/apps/rest-showcase/src/main/java/org/demo/rest/example/IndexController.java /opt/troll_den/apps/rest-showcase/src/main/java/org/demo/rest/example/OrdersController.java
Find the file somewhere in /opt/troll_den that is owned by the user troll. "find /some/directory -user example" would find any directory owned by a user named "example".	elf@2772f35fef52:/opt/troll_den$ find /opt/troll_den -user troll /opt/troll_den/apps/showcase/src/main/resources/template/ajaxErrorContainers/tr0LL_9528909612014411 elf@2772f35fef52:/opt/troll_den$
Find the file created by trolls that is greater than 108 kilobytes and less than 110 kilobytes located somewhere in /opt/troll_den. try this: ||find * -size +108k -size -110k||	elf@2772f35fef52:/opt/troll_den$ find /opt/troll_den -size +180 /opt/troll_den/bundles/admin/src/main/resources/static/js/jquery-ui-1.12.1.min.js /opt/troll_den/bundles/admin/src/main/resources/static/js/jquery-1.12.4.min.js /opt/troll_den/plugins/portlet-mocks/src/test/java/org/apache/struts2/StrutsSpringPortletMockObjectsTest.java /opt/troll_den/plugins/portlet-mocks/src/test/java/org/apache/t_r_o_l_l_2579728047101724 /opt/troll_den/plugins/embeddedjsp/src/main/java/org/apache/struts2/jasper/compiler/Generator.java /opt/troll_den/apps/showcase/src/main/webapp/fonts/glyphicons-halflings-regular.svg /opt/troll_den/apps/showcase/src/main/webapp/styles/bootstrap.min.css /opt/troll_den/apps/showcase/src/main/webapp/styles/bootstrap.css /opt/troll_den/apps/showcase/src/main/webapp/styles/bootstrap.css.map /opt/troll_den/apps/rest-showcase/src/main/webapp/fonts/glyphicons-halflings-regular.svg /opt/troll_den/apps/rest-showcase/src/main/webapp/css/bootstrap.min.css /opt/troll_den/apps/rest-showcase/src/main/webapp/css/bootstrap.css /opt/troll_den/apps/rest-showcase/src/main/webapp/css/bootstrap.css.map /opt/troll_den/core/src/test/java/org/apache/struts2/views/jsp/URLTagTest.java /opt/troll_den/core/src/test/java/org/apache/struts2/views/jsp/ui/FormTagTest.java /opt/troll_den/.git/index /opt/troll_den/.git/objects/pack/pack-2fcf66abc63caea69200e86258c180c8ee117c68.pack /opt/troll_den/.git/objects/pack/pack-2fcf66abc63caea69200e86258c180c8ee117c68.idx elf@2772f35fef52:/opt/troll_den$ find /opt/troll_den -size 110 >long list>
List running processes to find another troll.	elf@2772f35fef52:/opt/troll_den$ ps -aux USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND init 1 0.0 0.0 20112 16468 pts/0 Ss+ 12:38 0:00 /usr/bin/python3 /usr/local/bin/tmuxp load ./mysession.yaml elf 30453 0.0 0.0 31520 26924 pts/2 S+ 13:29 0:00 /usr/bin/python3 /14516_troll elf 32777 0.0 0.0 7672 3268 pts/3 R+ 13:33 0:00 ps -aux
The 14516_troll process is listening on a TCP port. Use a command to have the only listening port display to the screen.	elf@2772f35fef52:/opt/troll_den$ netstat -napt (Not all processes could be identified, non-owned process info will not be shown, you would have to be root to see it all.) Active Internet connections (servers and established) Proto Recv-Q Send-Q Local Address Foreign Address State PID/Program name tcp 0 0 0.0.0.0:54321 0.0.0.0:* LISTEN 30453/python3
The service listening on port 54321 is an HTTP server. Interact with this server to retrieve the last troll.	@c30bb662fc7c:/opt/troll_den$ curl http://localhost:54321 troll.73180338045875elf@c30bb662fc7c:/opt/troll_den$
Your final task is to stop the 14516_troll process to collect the remaining presents. The "kill" command can be used to kill a process.	elf@2772f35fef52:/opt/troll_den$ ps -aux USER PID %CPU %MEM VSZ RSS TTY STAT START TIME COMMAND init 1 0.0 0.0 20112 16512 pts/0 Ss+ 13:39 0:00 /usr/bin/python3 /usr/local/bin/tmuxp load ./mysession.yaml elf 5947 0.0 0.0 105616 27572 pts/2 S+ 13:49 0:00 /usr/bin/python3 /14516_troll elf 19475 0.0 0.0 7672 3268 pts/3 R+ 14:11 0:00 ps -aux lf@2772f35fef52:/opt/troll_den$ kill -l 1) SIGHUP 2) SIGINT 3) SIGQUIT 4) SIGILL 5) SIGTRAP 6) SIGABRT 7) SIGBUS 8) SIGFPE 9) SIGKILL 10) SIGUSR1 11) SIGSEGV 12) SIGUSR2 13) SIGPIPE 14) SIGALRM 15) SIGTERM 16) SIGSTKFLT 17) SIGCHLD 18) SIGCONT 19) SIGSTOP 20) SIGTSTP 21) SIGTTIN 22) SIGTTOU 23) SIGURG 24) SIGXCPU 25) SIGXFSZ 26) SIGVTALRM 27) SIGPROF 28) SIGWINCH 29) SIGIO 30) SIGPWR 31) SIGSYS 34) SIGRTMIN 35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3 38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8 43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13 48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12 53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57) SIGRTMAX-7 58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2 63) SIGRTMAX-1 64) SIGRTMAX elf@2772f35fef52:/opt/troll_den$ kill -9 5947

Congratulations, you caught all the trolls and retrieved all the presents!
Type "exit" to close...

Poking Around the directories -
Multiple toolboxes found:

toolbox_12.txt   toolbox_166.txt toolbox_211.txt toolbox_258.txt toolbox_303.txt toolbox_35.txt   toolbox_396.txt toolbox_441.txt toolbox_488.txt toolbox_83.txt
toolbox_120.txt toolbox_167.txt toolbox_212.txt toolbox_259.txt toolbox_304.txt toolbox_350.txt toolbox_397.txt toolbox_442.txt toolbox_489.txt toolbox_84.txt
toolbox_121.txt toolbox_168.txt toolbox_213.txt toolbox_26.txt   toolbox_305.txt toolbox_351.txt toolbox_398.txt toolbox_443.txt toolbox_49.txt   toolbox_85.txt
toolbox_122.txt toolbox_169.txt toolbox_214.txt toolbox_260.txt toolbox_306.txt toolbox_352.txt toolbox_399.txt toolbox_444.txt toolbox_490.txt toolbox_86.txt
toolbox_123.txt toolbox_17.txt   toolbox_215.txt toolbox_261.txt toolbox_307.txt toolbox_353.txt toolbox_4.txt   toolbox_445.txt toolbox_491.txt toolbox_87.txt
toolbox_124.txt toolbox_170.txt toolbox_216.txt toolbox_262.txt toolbox_308.txt toolbox_354.txt toolbox_40.txt   toolbox_446.txt toolbox_492.txt toolbox_88.txt
toolbox_125.txt toolbox_171.txt toolbox_217.txt toolbox_263.txt toolbox_309.txt toolbox_355.txt toolbox_400.txt toolbox_447.txt toolbox_493.txt toolbox_89.txt
toolbox_126.txt toolbox_172.txt toolbox_218.txt toolbox_264.txt toolbox_31.txt   toolbox_356.txt toolbox_401.txt toolbox_448.txt toolbox_494.txt toolbox_9.txt
toolbox_127.txt toolbox_173.txt toolbox_219.txt toolbox_265.txt toolbox_310.txt toolbox_357.txt toolbox_402.txt toolbox_449.txt toolbox_495.txt toolbox_90.txt
toolbox_128.txt toolbox_174.txt toolbox_22.txt   toolbox_266.txt toolbox_311.txt toolbox_358.txt toolbox_403.txt toolbox_45.txt   toolbox_496.txt toolbox_91.txt
toolbox_129.txt toolbox_175.txt toolbox_220.txt toolbox_267.txt toolbox_312.txt toolbox_359.txt toolbox_404.txt toolbox_450.txt toolbox_497.txt toolbox_92.txt
toolbox_13.txt   toolbox_176.txt toolbox_221.txt toolbox_268.txt toolbox_313.txt toolbox_36.txt   toolbox_405.txt toolbox_451.txt toolbox_498.txt toolbox_93.txt
toolbox_130.txt toolbox_177.txt toolbox_222.txt toolbox_269.txt toolbox_314.txt toolbox_360.txt toolbox_406.txt toolbox_452.txt toolbox_499.txt toolbox_94.txt
toolbox_131.txt toolbox_178.txt toolbox_223.txt toolbox_27.txt   toolbox_315.txt toolbox_361.txt toolbox_407.txt toolbox_453.txt toolbox_5.txt   toolbox_95.txt
toolbox_132.txt toolbox_179.txt toolbox_224.txt toolbox_270.txt toolbox_316.txt toolbox_362.txt toolbox_408.txt toolbox_454.txt toolbox_50.txt   toolbox_96.txt
toolbox_133.txt toolbox_18.txt   toolbox_225.txt toolbox_271.txt toolbox_317.txt toolbox_363.txt toolbox_409.txt toolbox_455.txt toolbox_500.txt toolbox_97.txt
toolbox_134.txt toolbox_180.txt toolbox_226.txt toolbox_272.txt toolbox_318.txt toolbox_364.txt toolbox_41.txt   toolbox_456.txt toolbox_51.txt   toolbox_98.txt
toolbox_135.txt toolbox_181.txt toolbox_227.txt toolbox_273.txt toolbox_319.txt toolbox_365.txt toolbox_410.txt toolbox_457.txt toolbox_52.txt   toolbox_99.txt
toolbox_136.txt toolbox_182.txt toolbox_228.txt toolbox_274.txt toolbox_32.txt   toolbox_366.txt toolbox_411.txt toolbox_458.txt toolbox_53.txt
toolbox_137.txt toolbox_183.txt toolbox_229.txt toolbox_275.txt toolbox_320.txt toolbox_367.txt toolbox_412.txt toolbox_459.txt toolbox_54.txt
toolbox_138.txt toolbox_184.txt toolbox_23.txt   toolbox_276.txt toolbox_321.txt toolbox_368.txt toolbox_413.txt toolbox_46.txt   toolbox_55.txt
toolbox_139.txt toolbox_185.txt toolbox_230.txt toolbox_277.txt toolbox_322.txt toolbox_369.txt toolbox_414.txt toolbox_460.txt toolbox_56.txt
toolbox_14.txt   toolbox_186.txt toolbox_231.txt toolbox_278.txt toolbox_323.txt toolbox_37.txt   toolbox_415.txt toolbox_461.txt toolbox_57.txt
toolbox_140.txt toolbox_187.txt toolbox_232.txt toolbox_279.txt toolbox_324.txt toolbox_370.txt toolbox_416.txt toolbox_462.txt toolbox_58.txt
toolbox_141.txt toolbox_188.txt toolbox_233.txt toolbox_28.txt   toolbox_325.txt toolbox_371.txt toolbox_417.txt toolbox_463.txt toolbox_59.txt

More exploration of directories:

:/home$ cd ..	:/tmp$ cd	:/opt$ cd troll_den
:/$ ls -la	:~$ ls -la	:/opt/troll_den$ ls -la
total 88	total 68	total 168
drwxr-xr-x 1 root root 4096 Dec 23 07:17 .	drwxr-xr-x 1 elf elf 4096 Dec 2 22:19 .	drwxr-xr-x 1 root root 4096 Dec 2 22:19 .
drwxr-xr-x 1 root root 4096 Dec 23 07:17 ..	drwxr-xr-x 1 root root 4096 Dec 2 22:19 ..	drwxr-xr-x 1 root root 4096 Dec 2 22:19 ..
-rwxr-xr-x 1 root root 0 Dec 23 07:17 .dockerenv	-rw-r--r-- 1 elf elf 28 Dec 2 22:19 .bash_history	-rw-r--r-- 1 root root 624 Dec 2 22:19 .asf.yaml
lrwxrwxrwx 1 root root 7 Nov 28 02:03 bin -> usr/bin	-rw-r--r-- 1 elf elf 220 Feb 25 2020 .bash_logout	drwxr-xr-x 8 root root 4096 Dec 2 22:19 .git
drwxr-xr-x 2 root root 4096 Apr 15 2020 boot	-rw-r--r-- 1 elf elf 3105 Nov 20 18:04 .bashrc	drwxr-xr-x 3 root root 4096 Dec 2 22:19 .github
drwxr-xr-x 5 root root 360 Dec 23 07:17 dev	-rw-r--r-- 1 elf elf 807 Feb 25 2020 .profile	-rw-r--r-- 1 root root 515 Dec 2 22:19 .gitignore
drwxr-xr-x 1 root root 4096 Dec 23 07:18 etc	-rw-r--r-- 1 elf elf 168 Nov 20 18:04 HELP	drwxr-xr-x 3 root root 4096 Dec 2 22:19 .mvn
drwxr-xr-x 1 root root 4096 Dec 2 22:19 home	-rw-r--r-- 1 elf elf 24 Dec 2 22:19 troll_	-rw-r--r-- 1 root root 81 Dec 2 22:19
lrwxrwxrwx 1 root root 7 Nov 28 02:03 lib -> usr/lib	19315479765589239	CODEOWNERS
lrwxrwxrwx 1 root root 9 Nov 28 02:03 lib32 -> usr/lib32	drwxr-xr-x 1 elf elf 24576 Dec 2 22:19 workshop	-rw-r--r-- 1 root root 6821 Dec 2 22:19
lrwxrwxrwx 1 root root 9 Nov 28 02:03 lib64 -> usr/lib64	elf@b0c5947c1303:~$ rm troll_19315479765589239	Jenkinsfile
lrwxrwxrwx 1 root root 10 Nov 28 02:03 libx32 ->	elf@b0c5947c1303:~$	-rw-r--r-- 1 root root 11357 Dec 2 22:19 LICENSE
usr/libx32		-rw-r--r-- 1 root root 1727 Dec 2 22:19
drwxr-xr-x 2 root root 4096 Nov 28 02:03 media		SECURITY.md
drwxr-xr-x 2 root root 4096 Nov 28 02:03 mnt		drwxr-xr-x 1 root root 4096 Dec 2 22:19 apps
drwxr-xr-x 1 root root 4096 Dec 2 22:19 opt		drwxr-xr-x 3 root root 4096 Dec 2 22:19
dr-xr-xr-x 201 root root 0 Dec 23 07:17 proc		assembly

```
drwx------   1 root root 4096 Dec  2 22:19 root          drwxr-xr-x 2 root root  4096 Dec  2 22:19 bom
drwxr-xr-x   1 root root 4096 Nov 28 02:06 run           drwxr-xr-x 4 root root  4096 Dec  2 22:19 bundles
lrwxrwxrwx   1 root root    8 Nov 28 02:03 sbin -> usr/sbin   drwxr-xr-x 3 root root  4096 Dec  2 22:19 core
drwxr-xr-x   2 root root 4096 Nov 28 02:03 srv           -rwxr-xr-x 1 root root 10283 Dec  2 22:19 mvnw
dr-xr-xr-x  13 root root    0 Dec 23 07:17 sys           -rw-r--r-- 1 root root  6733 Dec  2 22:19
drwxrwxrwt   1 root root 4096 Dec 23 07:18 tmp           mvnw.cmd
drwxr-xr-x   1 root root 4096 Nov 28 02:03 usr           drwxr-xr-x 1 root root  4096 Dec  2 22:19 plugins
drwxr-xr-x   1 root root 4096 Dec  2 22:19 var           -rw-r--r-- 1 root root 45729 Dec  2 22:19 pom.xml
elf@b0c5947c1303:/$                                      drwxr-xr-x 5 root root  4096 Dec  2 22:19 src
```

Comments of Interest from other Players

NTR