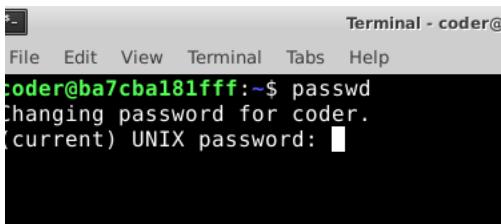# Newton Kyalo Muli
Graded Assignment Module 1-4

Question 1

1. Change Password to SecurePwd123

Note: I was not able to change password in Coursera Labs due permission level.

   i.   In the terminal run passwd command
   ii.   When prompted enter current password
   iii.   Enter new password "SecurePwd123"
   iv.   Confirm new password
   v.   Verify success message displayed

2. List all users currently logged into the server

Steps (command who or command users. In Coursera lab this returns nothing)

   i.   Run command who or w – return output showing logged-in usernames, terminals and login time
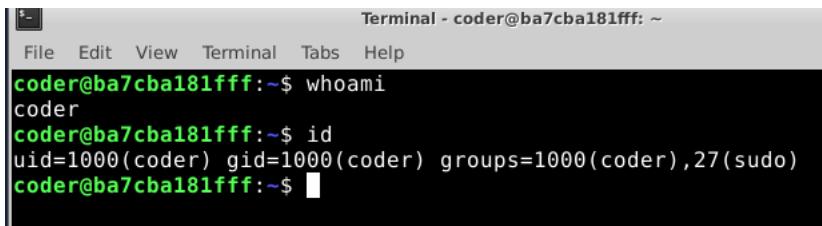   ii.   Alternative is to use the users command

3. Determine your own user name and user id
   Steps
   i.   Run command id or whoami

4. Create a text file named "important_notes.txt" and write the message "Confidential: For Authorized personnel only " into the file. I have created the file and also listed it using ls and displayed the content using cat
   Steps
   i.   Create a file and write message by running this command > echo "Confidential For Authorized personnel only" > important_notes.txt
   ii.   Confirm the file was created by using ls command
   iii.   View the contents of the file with the cat command

```
File   Edit   View   Terminal   Tabs   Help
coder@ba7cba181fff:~$ echo "Confidential: For Authorized personnel only" > important_notes.txt
coder@ba7cba181fff:~$ ls
coursera      Desktop.save          install       package.json        Templates      workspace
data          Documents             Music         package-lock.json   Videos         wrapper_process.sh
Desktop       Downloads             node_modules  Pictures            wm.log
Desktop-ro    important_notes.txt   noVNC         Public              wm_startup.sh
coder@ba7cba181fff:~$ cat important_notes.txt
Confidential: For Authorized personnel only
coder@ba7cba181fff:~$
```

5. Access the manual page for ls command to learn more about its options and usage.

   Note The manual entry for ls is not available in the Coursera lab

   i.   Enter the man ls command

   ii.   Navigate using arrow keys or page up/page down

As an alternative/workaround in Coursera lab I also used ls --help command to get help information


```
                                        Terminal - coder@ba7cba181fff: ~

File   Edit   View   Terminal   Tabs   Help
coder@ba7cba181fff:~$ man ls
No manual entry for ls
See 'man 7 undocumented' for help when manual pages are not available.
coder@ba7cba181fff:~$ ls --help
Usage: ls [OPTION]... [FILE]...
List information about the FILEs (the current directory by default).
Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.

Mandatory arguments to long options are mandatory for short options too.
  -a, --all                  do not ignore entries starting with .
  -A, --almost-all           do not list implied . and ..
      --author               with -l, print the author of each file
  -b, --escape               print C-style escapes for nongraphic characters
      --block-size=SIZE      scale sizes by SIZE before printing them; e.g.,
                             '--block-size=M' prints sizes in units of
                             1,048,576 bytes; see SIZE format below
  -B, --ignore-backups       do not list implied entries ending with ~
```

6. List the contents of a directory including hidden files and directories in long format

   Steps

   i.   Run the ls -la command


```
                                        Terminal - coder@ba7cba181fff: ~

File   Edit   View   Terminal   Tabs   Help
coder@ba7cba181fff:~$ ls -la
total 55
drwxr-xr-x 29 coder   coder       45 Dec 29 12:40 .
drwxr-xr-x  4 root    root         4 Apr 12  2023 ..
-rw-r--r--  1 coder   coder      220 Jun 26  2023 .bash_logout
-rw-r--r--  1 coder   coder     3771 Jun 26  2023 .bashrc
drwx------  7 coder   coder        7 Dec 29 12:12 .cache
-rw-r--r--  1 coder   coder      106 Dec 29 12:12 .chromium-browser
drwxr-xr-x  5 coder   coder        9 Dec 29 12:12 .config
drwxr-xr-x  4 coder   coder        4 Dec 29 12:12 coursera
drwxr-xr-x  3 coder   coder        3 Jun 26  2023 data
drwx------  3 coder   coder        3 Dec 29 12:12 .dbus
drwxrwxrwx  2 nobody  nogroup   6144 Dec 21 07:50 Desktop
drwxr-xr-x  2 root    root      6144 Dec 17 04:28 Desktop-ro
drwxr-xr-x  2 coder   coder        4 Jun 26  2023 Desktop.save
drwxr-xr-x  2 coder   coder        2 Dec 29 12:12 Documents
drwxr-xr-x  2 coder   coder        2 Dec 29 12:12 Downloads
drwxr-xr-x  2 coder   coder        2 Apr 12  2023 .eclipse
-rw-r--r--  1 coder   coder       26 Jun 26  2023 .gitconfig
drwx------  3 coder   coder        7 Dec 29 12:12 .gnupg
```
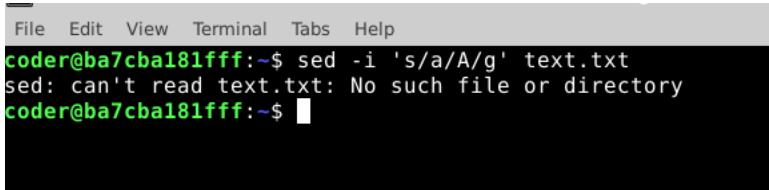
7. Replace all occurrences of the letter 'a' with 'A' in a text file named text.txt

   Steps

   i.   Use stream editor to replace all 'a' with 'A'

>sed -I 'a/a/A/g' text.txt

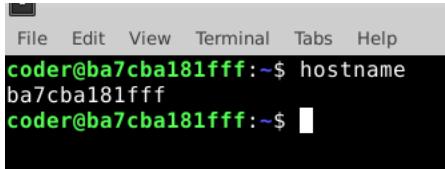ii. verify changes using command >cat text.txt

```
File   Edit   View   Terminal   Tabs   Help
coder@ba7cba181fff:~$ sed -i 's/a/A/g' text.txt
sed: can't read text.txt: No such file or directory
coder@ba7cba181fff:~$ 
```

8. Display hostname of your server
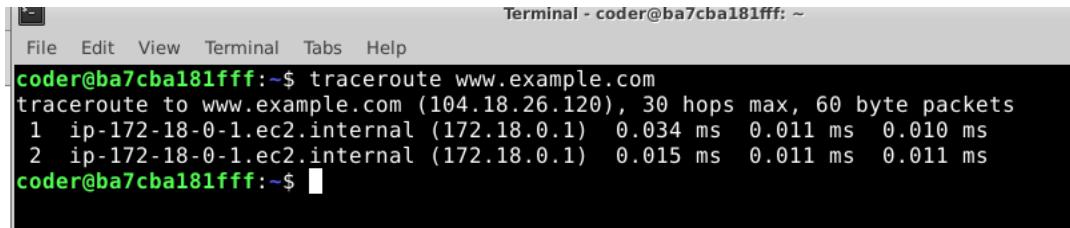   Steps
    i.   Enter command >hostname

```
File   Edit   View   Terminal   Tabs   Help
coder@ba7cba181fff:~$ hostname
ba7cba181fff
coder@ba7cba181fff:~$ 
```

9. Trace the network route from local machine to www.example.com

Steps

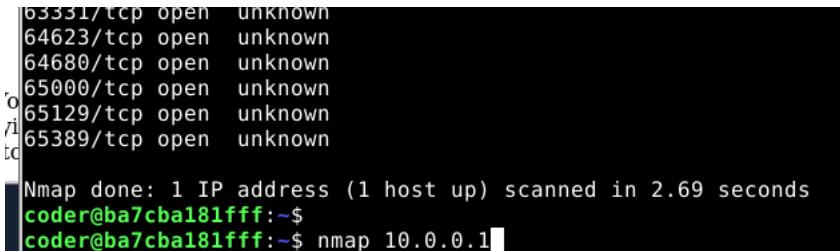   i.   Run command > traceroute www.example.com

```
                        Terminal - coder@ba7cba181fff: ~
File   Edit   View   Terminal   Tabs   Help
coder@ba7cba181fff:~$ traceroute www.example.com
traceroute to www.example.com (104.18.26.120), 30 hops max, 60 byte packets
 1  ip-172-18-0-1.ec2.internal (172.18.0.1)  0.034 ms  0.011 ms  0.010 ms
 2  ip-172-18-0-1.ec2.internal (172.18.0.1)  0.015 ms  0.011 ms  0.011 ms
coder@ba7cba181fff:~$ 
```

9. perform a basic port scan of a target server with the IP address '10.0.0.1'
    Steps
    i.   run command >nmap 10.0.0.1

```
63331/tcp open    unknown
64623/tcp open    unknown
64680/tcp open    unknown
65000/tcp open    unknown
65129/tcp open    unknown
65389/tcp open    unknown

Nmap done: 1 IP address (1 host up) scanned in 2.69 seconds
coder@ba7cba181fff:~$
coder@ba7cba181fff:~$ nmap 10.0.0.1
```