CONESTOGA

Connect Life and Learning

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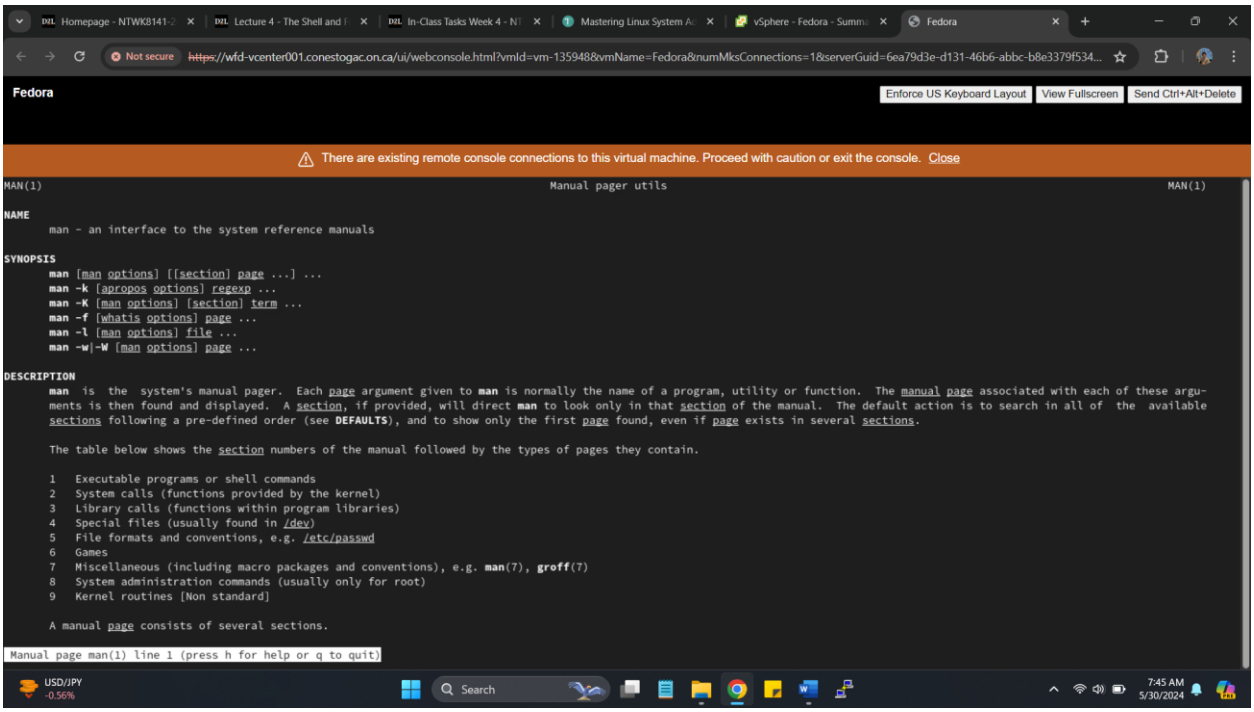
Deliverable:	In-Class Tasks Week 4 Assignment
Course Name:	NTWK8141-24S-Sec3-Linux Server

Date Assigned:	29/05/2024
Date Due:	30/05/2024
Rules:	• Individual. • Cheating is not allowed. • Plagiarism counts as cheating! • That FAILURE to submit work in the course can result in a grade of 'F' or 'I' for failure to complete the course!

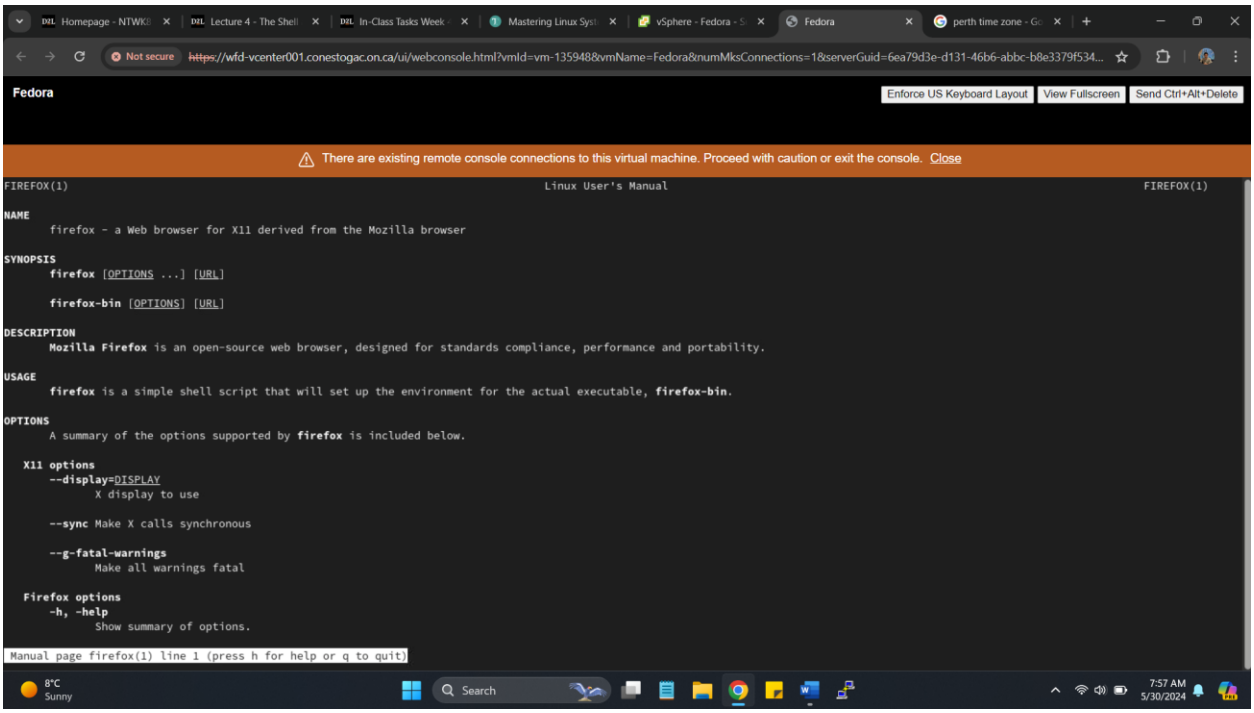
In Class Task: Manuals

Open tty terminal 4. Type man man and figure out how to get the following output:
Ubuntu:
firefox (1) - a free and open source web browser from Mozilla
Fedora:
firefox (1) -a web browser for X11 derived from the Mozilla browser
Then: Complete the Real World Scenario: Finding Help Information in Chapter 6

man man



man Firefox

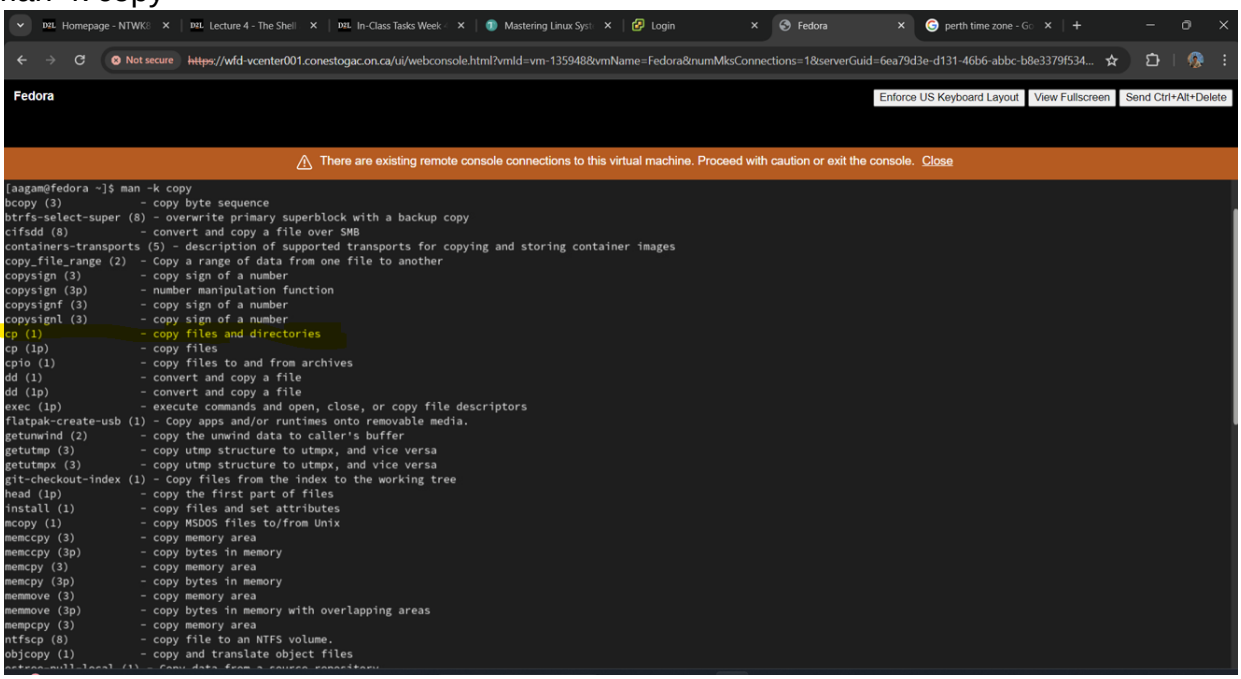


Real World Scenario

FINDING HELP INFORMATION

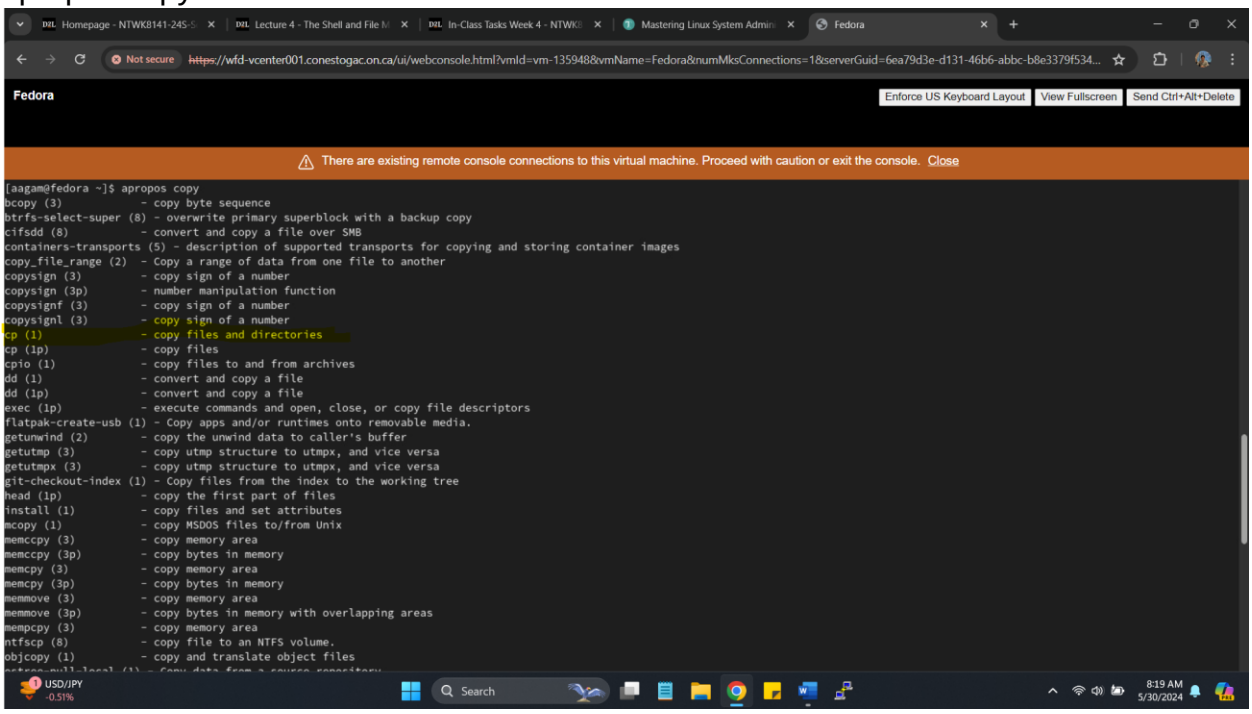
In command prompt, type **man -k copy** and press Enter.
several lines of text are listed. The information displayed in the previous step results from a keyword search, where `copy` was the keyword. The `man -k` command searches through each man page's Name and Description sections, looking for the specified keyword. And if found, it displays the man page's Name information

man -k copy



Type **apropos copy** and press Enter. Is the information different from the previous step or the same? (You may need to use the Shift+Page Up key combination to see the text that has scrolled out of view on the screen. You can press either Enter or Shift+Page Down to get back to the prompt.) You should find the same information, because `apropos` is essentially an equivalent command to `man -k`.

apropos copy



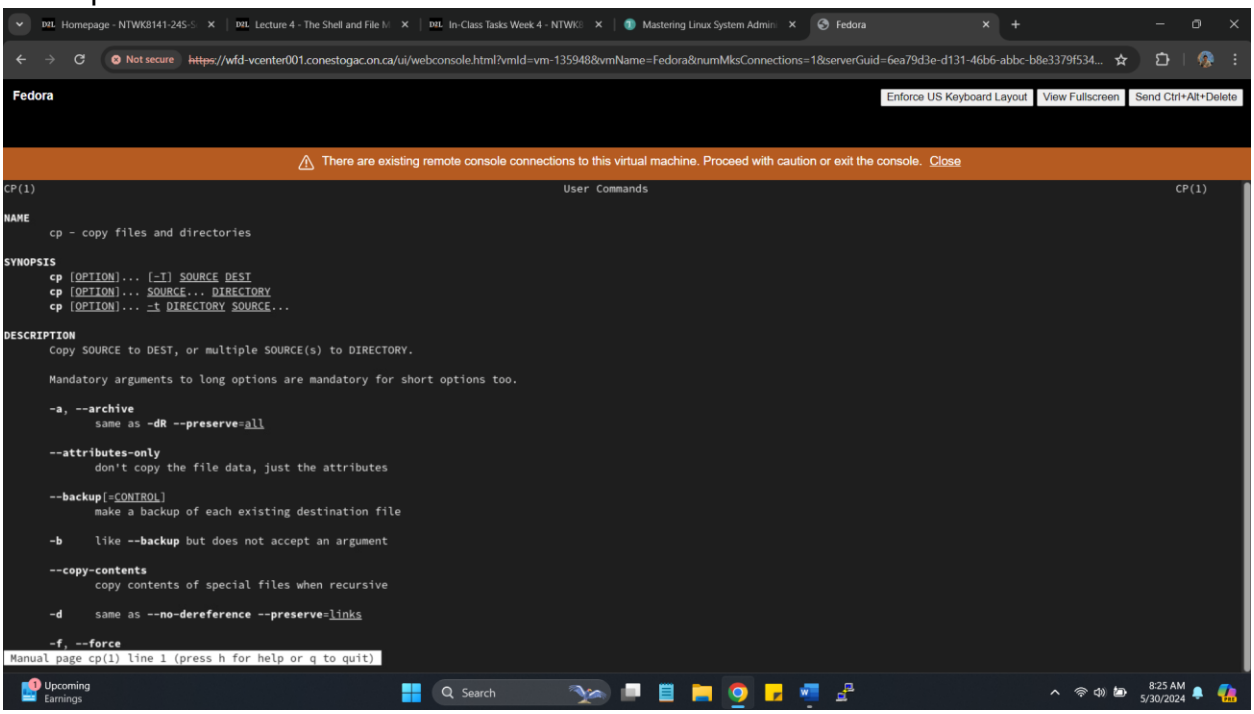
another man page search utility. This one requires you to know the name of the command. Type **whatis cp** and press Enter. You should see at least a single line of text.

whatis cp

```
[aagam@fedora ~]$ whatis cp
cp (1)                   - copy files and directories
cp (1p)                  - copy files
[aagam@fedora ~]$
```

type **man cp** and press Enter

man cp



Real World Scenario

USING COMMAND COMPLETION FOR SPEED

1. Type **cat /p** and stop.
2. Press the Tab key. The Bash shell will partially complete the command, which should now look like `cat /proc/`.
3. At the partially completed command's end, type **ve** and stop.
4. Press the Tab key. The Bash shell will complete the command, which should now look like `cat /proc/version`.
5. Press the Enter key and view the current Linux kernel's version.

Using “Tab key”

```
[aagam@fedora ~]$ cat /p
cat: /p: No such file or directory
[aagam@fedora ~]$ cat /proc/
cat: /proc/: Is a directory
[aagam@fedora ~]$ cat /proc/ve
cat: /proc/ve: No such file or directory
[aagam@fedora ~]$ cat /proc/version
Linux version 5.14.10-300.fc35.x86_64 (mockbuild@bkernel01.iad2.fedoraproject.org) (gcc (GCC) 11.2.1 20210728 (Red Hat 11.2.1-1), GNU ld version 2.37-10.fc35) #1 SMP Thu Oct 7 20:48:44 UTC 2
021
[aagam@fedora ~]$
```

In-Class Task: Env Variables

• Complete Ch 6 Real World Scenario

– “Redefining Default Environment Variables”

Change your Bash shell prompt's appearance by typing **PS1="$ "** and pressing Enter

PS1=”$ ”

```
[aagam@fedora ~]$ $
bash: $: command not found...
[aagam@fedora ~]$ PS1="$ "
$
```

typing **bash** and pressing Enter. You should see that the prompt returned to the appearance you recorded in above step . That's because you did not globalize the environment variable setting

bash

```
[aagam@fedora ~]$ $
bash: $: command not found...
[aagam@fedora ~]$ PS1="$ "
$ bash
[aagam@fedora ~]$
```

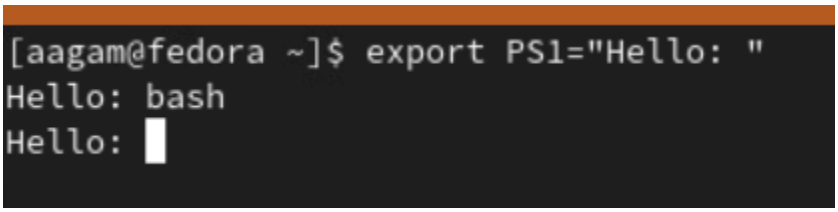
Leave the child shell, by typing **exit** and pressing Enter.

Exit

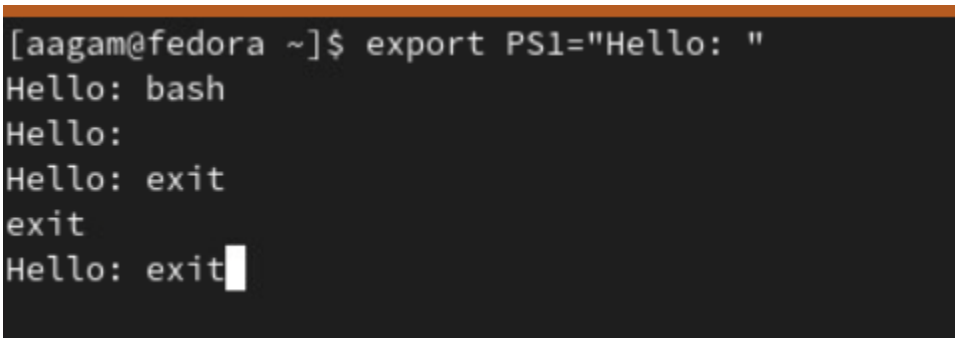
```
[aagam@fedora ~]$ $
bash: $: command not found...
[aagam@fedora ~]$ PS1="$ "
$ bash
[aagam@fedora ~]$ PS1="$ "
$ exit
exit
$
```

`export PS1="Hello: "`, and press Enter.
See whether this new Bash shell prompt setting will survive going into a subshell by typing **bash** and pressing Enter. You should see that the prompt still looks like it did when you set it in above step. This is due to you using the `export` command, which made the prompt variable setting global.
export PS1=”Hello: ”

bash

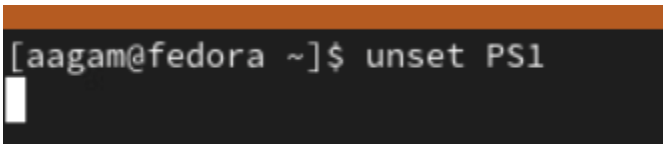


Leave the child shell by typing **exit** and pressing Enter. It won't look like anything happened, because you get no messages and the prompt does not change



Remove your prompt setting by typing **unset PS1** and pressing Enter. Wow! Now you have no prompt. That's because you removed the value of PS1

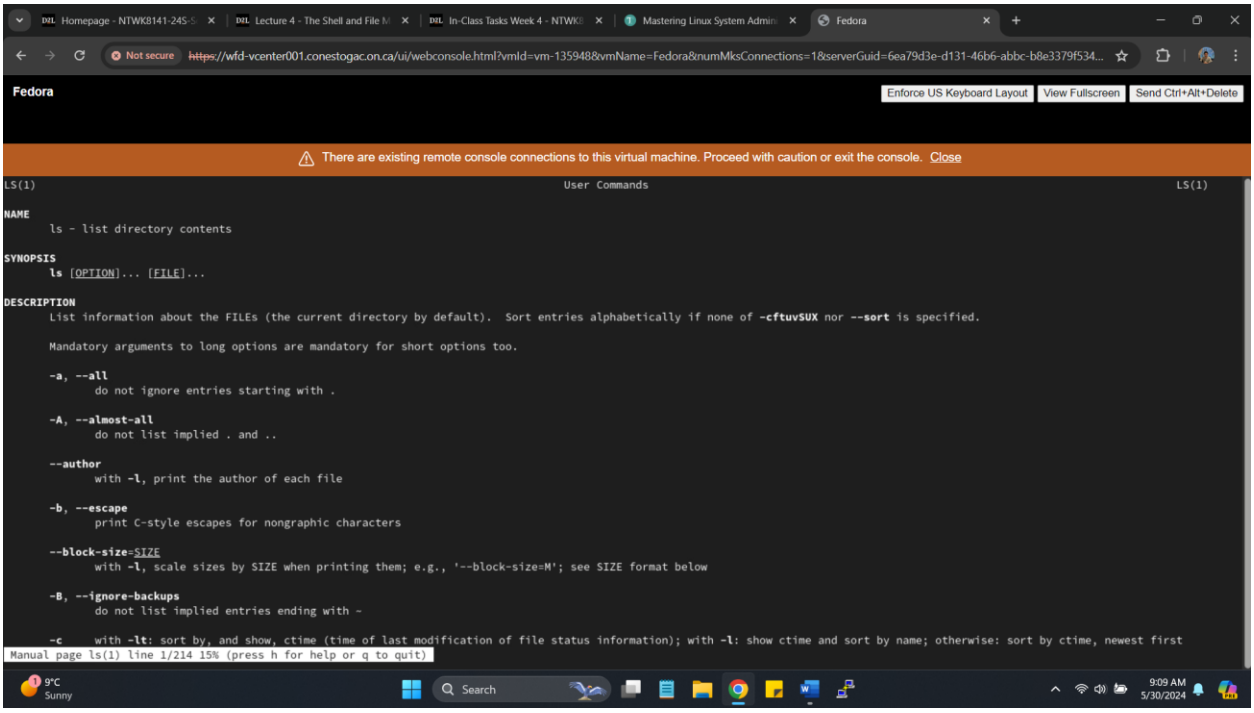
unset PS1



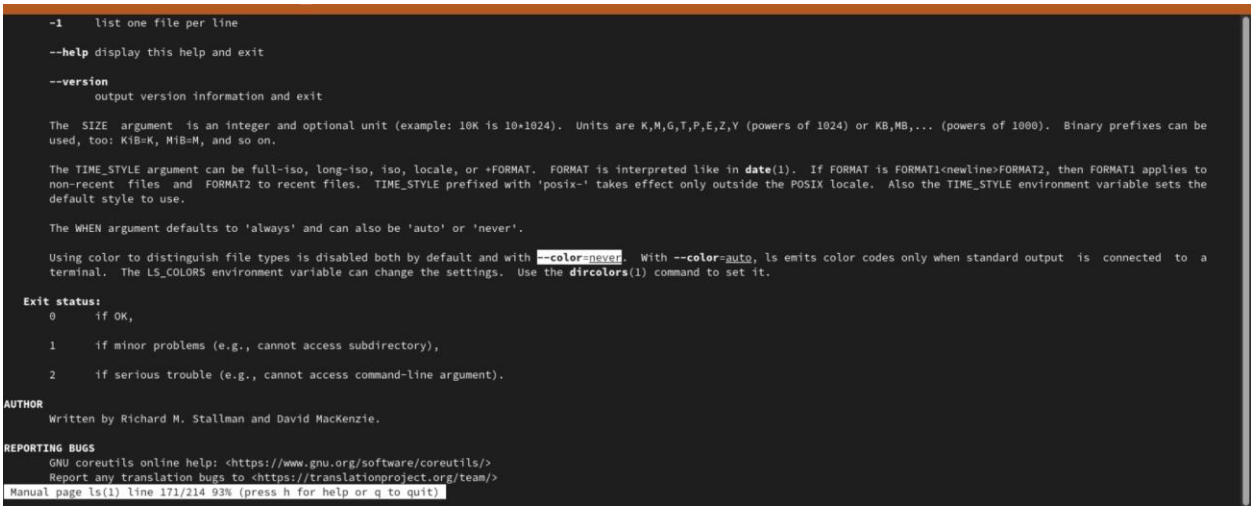
In-Class Task: man pages

- Ch 7– type man ls and find the options that do the following:
- set the color to never
- won’t display backups
- list unsorted

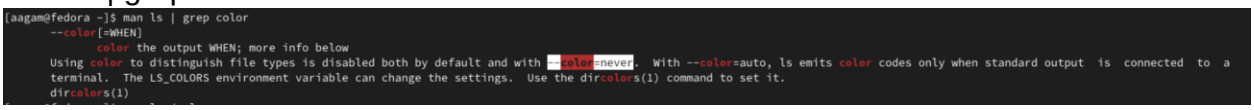
man ls



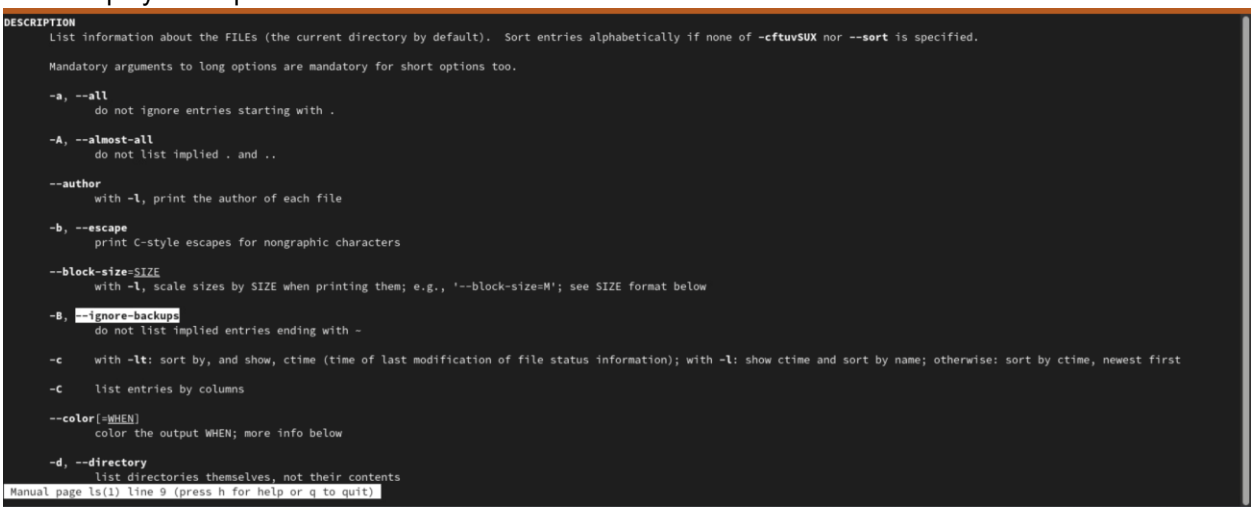
set the color to never



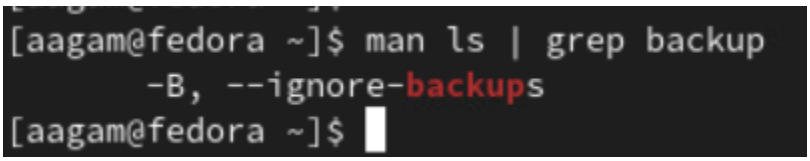
man ls | grep color



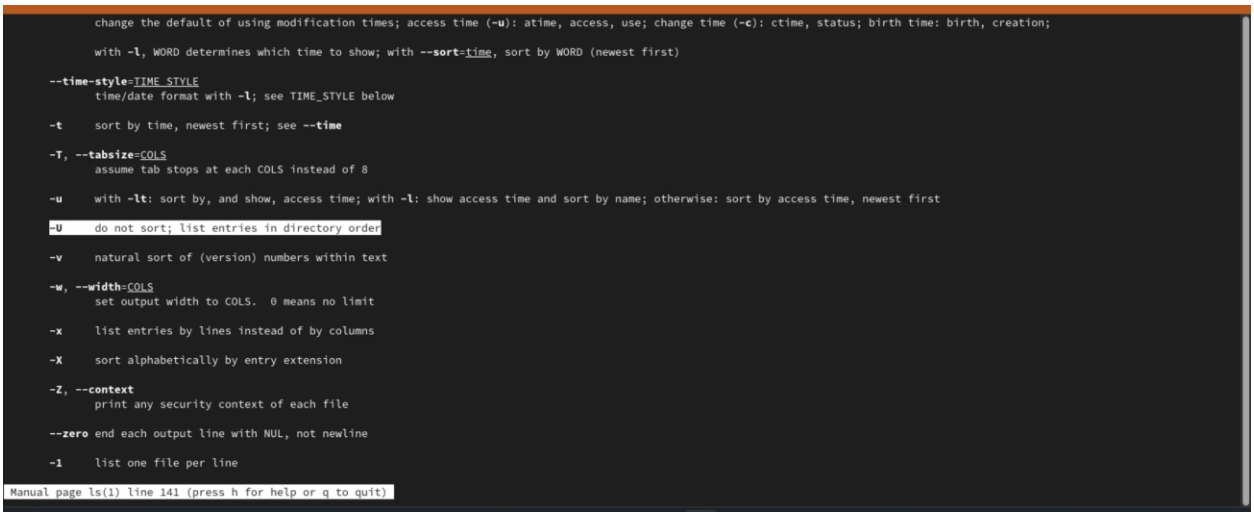
won’t display backups



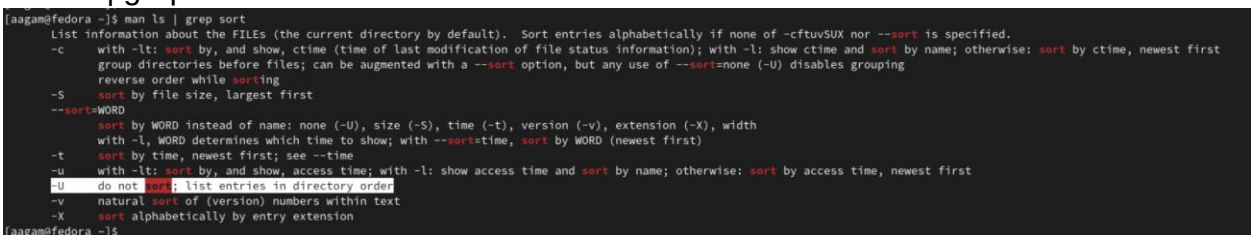
man ls | grep backup



list unsorted



man ls | grep sort



In-Class Task: Files

• Complete Ch 7 Working with Files

Real World Scenario

From your Home directory CLI prompt, create a directory by entering the command **mkdir test**. Change to that directory by entering the command **cd test**, and then enter the command **ls -l** to look at the directory contents.

mkdir test

cd test

ls -l

```
[aagam@fedora ~]$ mkdir test
[aagam@fedora ~]$ cd test
[aagam@fedora test]$ ls -l
total 0
[aagam@fedora test]$
```

From the CLI prompt, enter the command **touch test1**. This creates a test file to work with.

touch test1

ls -l

```
[aagam@fedora test]$ touch test1
[aagam@fedora test]$ ls -l
total 0
-rw-r--r--. 1 aagam aagam 0 May 30 09:19 test1
[aagam@fedora test]$
```

From the CLI prompt, create another file that's a hard link to the first file by entering the command **ln test1 test2**. List the inodes of the files using the command by typing **ls -il** to ensure they are hard linked.

ln test1 test2

ls -il

```
[aagam@fedora test]$ ln test1 test2
[aagam@fedora test]$ ls -il
total 0
3784 -rw-r--r--. 2 aagam aagam 0 May 30 09:19 test1
3784 -rw-r--r--. 2 aagam aagam 0 May 30 09:19 test2
[aagam@fedora test]$
```

Save some data in the `test1` file by entering the command **echo "Testing" >> test1**. Enter the command **ls -l** to see the file size of both the `test1` and `test2` files. They should have both changed.

echo “Testing” >> test1

ls -l

```
[aagam@fedora test]$ echo "Testing" >> test1
[aagam@fedora test]$ ls -l
total 8
-rw-r--r--. 2 aagam aagam 8 May 30 09:24 test1
-rw-r--r--. 2 aagam aagam 8 May 30 09:24 test2
[aagam@fedora test]$
```

Remove the `test1` file by entering the command **rm test1**. Enter the command **ls** to list the remaining file

rm test1

```
[aagam@fedora test]$ rm test1
[aagam@fedora test]$ ls -l
total 4
-rw-r--r--. 1 aagam aagam 8 May 30 09:24 test2
[aagam@fedora test]$
```

In-Class Task: Archives

• Complete Ch 7 Working with File Archives

Real World Scenario

From the CLI prompt, create a new directory by entering the command **mkdir mytest1**, and then create another new directory by entering the command **mkdir mytest2**.
Create a few new files in the `mytest1` directory by entering these commands:

```
touch mytest1/test1
```

```
    touch mytest1/test2
    touch mytest1/test3
    touch mytest1/test4
```

Change to the `mytest1` directory by entering the command **cd mytest1**, and then enter the command **ls -l** to ensure the files exist:

mkdir mytest1

mkdir mytest2

touch mytest1/test1

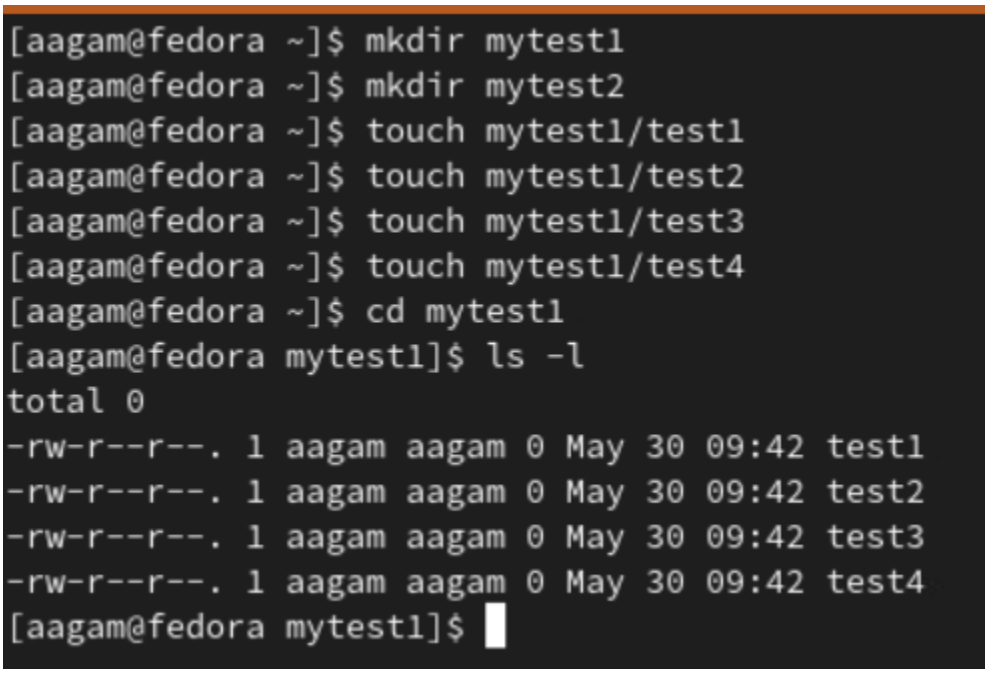
touch mytest1/test2

touch mytest1/test3

touch mytest1/test4

cd mytest1

ls -l



Archive the files by entering the command **tar -cvf test.tar test***. You should see the following output:

tar -cvf test.tar test*

```
[aagam@fedora mytest1]$ tar -cvf test.tar test*
test1
test2
test3
test4
tar: test.tar: file is the archive; not dumped
[aagam@fedora mytest1]$
```

Copy the `test.tar` archive file to the **mytest2** directory using the command **cp test.tar ../mytest2**

cd test.tar ../mytest2

```
[aagam@fedora mytest1]$ cp test.tar ../mytest2
[aagam@fedora mytest1]$ ls -l
total 12
-rw-r--r--. 1 aagam aagam     0 May 30 09:42 test1
-rw-r--r--. 1 aagam aagam     0 May 30 09:42 test2
-rw-r--r--. 1 aagam aagam     0 May 30 09:42 test3
-rw-r--r--. 1 aagam aagam     0 May 30 09:42 test4
-rw-r--r--. 1 aagam aagam 10240 May 30 09:45 test.tar
[aagam@fedora mytest1]$
```

Change to the `mytest2` directory by entering the command **cd ../mytest2**, and then list the directory contents by entering the command **ls -l**.

cd ../mytest2

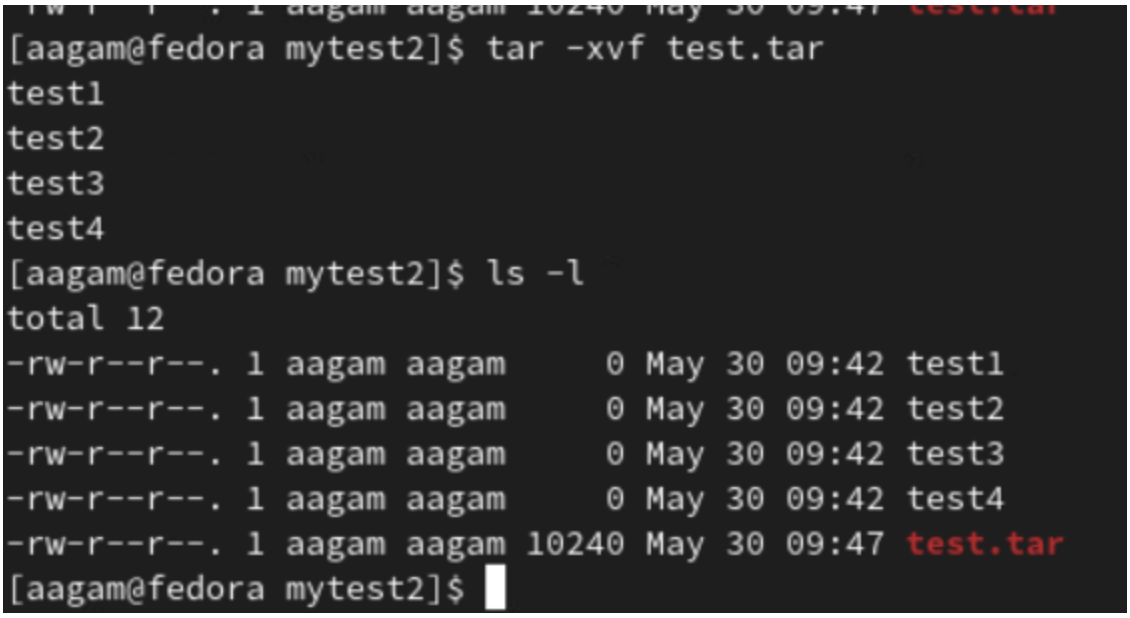
ls -l

```
[aagam@fedora mytest1]$ cd ../mytest2
[aagam@fedora mytest2]$ ls -l
total 12
-rw-r--r--. 1 aagam aagam 10240 May 30 09:47 test.tar
[aagam@fedora mytest2]$
```

Extract the archive file using the command **tar -xvf test.tar**. Enter the command **ls -l** to ensure the files have been extracted.

tar -xvf test.tar

ls -l


[aagam@fedora mytest2]$ tar -xvf test.tar
test1
test2
test3
test4
[aagam@fedora mytest2]$ ls -l
total 12
-rw-r--r--. 1 aagam aagam   0 May 30 09:42 test1
-rw-r--r--. 1 aagam aagam   0 May 30 09:42 test2
-rw-r--r--. 1 aagam aagam   0 May 30 09:42 test3
-rw-r--r--. 1 aagam aagam   0 May 30 09:42 test4
-rw-r--r--. 1 aagam aagam 10240 May 30 09:47 test.tar
[aagam@fedora mytest2]$