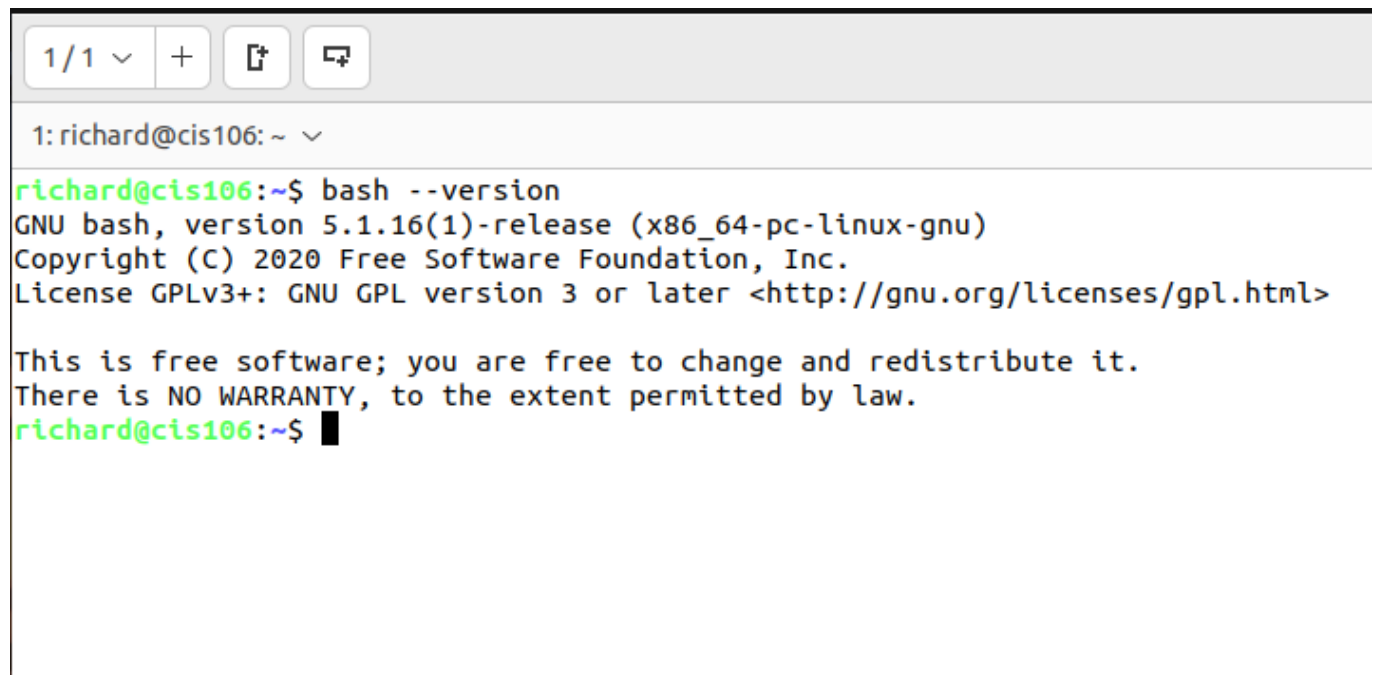


Week Report 3

Completed work for week 3

- [Lab 3](#)
- [Notes 1](#)

Practice 2: Accessing the bash shell



```
1/1  +  [ ]  [ ]  
1: richard@cis106: ~  ▾  
richard@cis106:~$ bash --version  
GNU bash, version 5.1.16(1)-release (x86_64-pc-linux-gnu)  
Copyright (C) 2020 Free Software Foundation, Inc.  
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>  
  
This is free software; you are free to change and redistribute it.  
There is NO WARRANTY, to the extent permitted by law.  
richard@cis106:~$ █
```

Practice 3: Using the command history

```
1/1  +  [ ]  [ ]
1: richard@cis106: ~  v
50 echo -e "This is line1\n\tThis is line2"
51 echo -e "\tThis is line1\n\tThis is line2"
52 echo main
53 man echo
54 man uname
55 man date
56 git pull
57 git add .
58 git commit -m "lab 3 finished"
59 git push
60 git pull
61 git add .
62 git commit -m "lab 3 finished"
63 man free
64 man uname
65 man history
66 man
67 man man
68 man apt
69 man man
70 man date
71 man free
72 man uname
73 clear
74 man history
75 man snap
76 man flatpak
77 clear
78 bash --version
79 clear
80 date
81 echo "hello world"
82 uname -a
83 history
richard@cis106:~$ !81
echo "hello world"
hello world
richard@cis106:~$ !!
echo "hello world"
hello world
richard@cis106:~$ echo "hello"
hello
richard@cis106:~$ !!world
echo "hello" world
hello world
richard@cis106:~$ █
```

Practice 4: My first shell script

1/1 +

1: richard@cis106: ~

```
richard@cis106:~$ bash ~/scripts/hello.sh
Hello World
I am learning Linux
This is my first shell script
richard@cis106:~$
```

Practice 5: Using man

1/1 +

Tilix: richard@cis106: ~

1: richard@cis106: ~

2: richard@cis106: ~

UNAME(1)
ands

NAME
uname - print system information

SYNOPSIS
uname [OPTION]...

DESCRIPTION
Print certain system information. With no OPTION, same as -s.

-a, --all
print all information, in the following order, except omit -p and -i if unknown:

-s, --kernel-name
print the kernel name

-n, --nodename
print the network node hostname

-r, --kernel-release
print the kernel release

-v, --kernel-version
print the kernel version

-m, --machine
print the machine hardware name

-p, --processor
print the processor type (non-portable)

-l, --hardware-platform
print the hardware platform (non-portable)

-o, --operating-system
print the operating system

--help
display this help and exit

--version
output version information and exit

AUTHOR
Manual page uname(1) line 1 (press h for help or q to quit)

User Comm
UNAME(1)

richard@cis106:~\$ uname -s
Linux
richard@cis106:~\$ uname -n
cis106
richard@cis106:~\$ uname -i
x86_64
richard@cis106:~\$ uname -o
GNU/Linux
richard@cis106:~\$ man date
richard@cis106:~\$ man df
richard@cis106:~\$ man free
richard@cis106:~\$ man clear
richard@cis106:~\$ man history
richard@cis106:~\$ free --giga

	total	used	free	shared	buff/cache	available
Mem:	2	1	0	0	0	0
Swap:	4	1	2			

richard@cis106:~\$

Practice 6: Using the help option

1 / 1 +

1: richard@cis106: ~

```
richard@cis106:~$ whatis ls
ls (1) - list directory contents
richard@cis106:~$ whatis pwd
pwd (1) - print name of current/working directory
richard@cis106:~$ whatis apt
apt (8) - command-line interface
richard@cis106:~$ whatis sudo
sudo (8) - execute a command as another user
richard@cis106:~$
```

Practice 7: Cheat!

1 / 1 +

Till: richard@cis106: ~

1: richard@cis106: ~

2: richard@cis106: ~

```
# To create an uncompressed archive:
tar -cvf /path/to/foo.tar /path/to/foo/

# To extract a .tgz or .tar.gz archive:
tar -xzf /path/to/foo.tgz
tar -xzf /path/to/foo.tar.gz

# To create a .tgz or .tar.gz archive:
tar -czvf /path/to/foo.tgz /path/to/foo/
tar -czvf /path/to/foo.tar.gz /path/to/foo/

# To list the content of an .tgz or .tar.gz archive:
tar -tzvf /path/to/foo.tgz
tar -tzvf /path/to/foo.tar.gz

# To extract a .tar.bz2 archive:
tar -xjvf /path/to/foo.tar.bz2

# To create a .tar.bz2 archive:
tar -cjvf /path/to/foo.tar.bz2 /path/to/foo/

# To list the content of an .tar.bz2 archive:
tar -tjvf /path/to/foo.tar.bz2

# To create a .tgz archive and exclude all jpg,gif,... from the tgz:
tar -czvf /path/to/foo.tgz --exclude='*.jpg,gif,png,wmv,flv,tar.gz,zip' /path/to/foo/

# To use parallel (multi-threaded) implementation of compression algorithms:
tar -z ... -> tar -Ipigz ...
tar -j ... -> tar -Ipbzip2 ...
tar -J ... -> tar -Iplxz ...

# To append a new file to an old tar archive:
tar -rf <archive.tar> <new-file-to-append>
richard@cis106:~$ sudo apt install python3-pip
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
python3-pip is already the newest version (22.0.2+dfsg-1ubuntu0.4).
The following packages were automatically installed and are no longer required:
  apport-symptoms guile-2.2-libs libgnome-games-support-1-3 libgnome-games-support-common libqqwtng2v5
  python3-systemd
Use 'sudo apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 48 not upgraded.
richard@cis106:~$
```

```
richard@cis106:~$ cheat tar | pygmentize
# To extract an uncompressed archive:
tar -xvf /path/to/foo.tar

# To extract a .tar in specified directory:
tar -xvf /path/to/foo.tar -C /path/to/destination/

# To create an uncompressed archive:
tar -cvf /path/to/foo.tar /path/to/foo/

# To extract a .tgz or .tar.gz archive:
tar -xzf /path/to/foo.tgz
tar -xzf /path/to/foo.tar.gz

# To create a .tgz or .tar.gz archive:
tar -czvf /path/to/foo.tgz /path/to/foo/
tar -czvf /path/to/foo.tar.gz /path/to/foo/

# To list the content of an .tgz or .tar.gz archive:
tar -tzvf /path/to/foo.tgz
tar -tzvf /path/to/foo.tar.gz

# To extract a .tar.bz2 archive:
tar -xjvf /path/to/foo.tar.bz2

# To create a .tar.bz2 archive:
tar -cjvf /path/to/foo.tar.bz2 /path/to/foo/

# To list the content of an .tar.bz2 archive:
tar -tjvf /path/to/foo.tar.bz2

# To create a .tgz archive and exclude all jpg,gif,... from the tgz:
tar -czvf /path/to/foo.tgz --exclude='*.jpg,gif,png,wmv,flv,tar.gz,zip' /path/to/foo/

# To use parallel (multi-threaded) implementation of compression algorithms:
tar -z ... -> tar -Ipigz ...
tar -j ... -> tar -Ipbzip2 ...
tar -J ... -> tar -Iplxz ...

# To append a new file to an old tar archive:
tar -rf <archive.tar> <new-file-to-append>
richard@cis106:~$
```

Practice 1: Managing Software

```

1/1  +  [ ]  [ ]
1: richard@cis106: ~
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for libc-bin (2.35-0ubuntu3.6) ...
Processing triggers for man-db (2.10.2-1) ...
richard@cis106:~$ man bastet
richard@cis106:~$ bastet
richard@cis106:~$ sudo apt bastet
E: Invalid operation bastet
richard@cis106:~$ sudo apt remove bastet
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  appport-symptoms guile-2.2-libs libboost-program-options1.74.0 libgnome-games-support-1-3
  libgnome-games-support-common libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  bastet
0 upgraded, 0 newly installed, 1 to remove and 48 not upgraded.
After this operation, 212 kB disk space will be freed.
Do you want to continue? [Y/n] y
(Reading database ... 226223 files and directories currently installed.)
Removing bastet (0.43-7) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for mailcap (3.70+nmu1ubuntu1) ...
Processing triggers for desktop-file-utils (0.26-1ubuntu3) ...
richard@cis106:~$ sudo apt purge bastet
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  appport-symptoms guile-2.2-libs libboost-program-options1.74.0 libgnome-games-support-1-3
  libgnome-games-support-common libqqwing2v5 python3-systemd
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  bastet*
0 upgraded, 0 newly installed, 1 to remove and 48 not upgraded.
After this operation, 0 B of additional disk space will be used.
Do you want to continue? [Y/n] y
(Reading database ... 226213 files and directories currently installed.)
Purging configuration files for bastet (0.43-7) ...
richard@cis106:~$ █

```

Practice 3: Installing and removing snaps

```

1/1  +  [ ]  [ ]  Tilix: richard@cis106: ~
1: richard@cis106: ~
richard@cis106:~$ snap search "tetris clone"
Name      Version  Publisher  Notes  Summary
tetris-in-racket  1.2-2    brunonova  -      Tetris clone developed in Racket
vitetris  0.57     bladernr   -      Console based version of Tetris
fairtris  3.0.0.4  chronoscz  -      A fair implementation of Classic Tetris® video game.
pmtris    1.0      kz6fittycent  -      Poor Man's Tetris Clone
ltris-windows  1.2.3    marisag1967  -      A free Tetris clone that follows the original rules but adds some extras
richard@cis106:~$ sudo snap install tetris-in-racket
tetris-in-racket 1.2-2 from Bruno Nova (brunonova) installed
richard@cis106:~$ sudo snap remove tetris-in-racket
tetris-in-racket removed
richard@cis106:~$ █

```