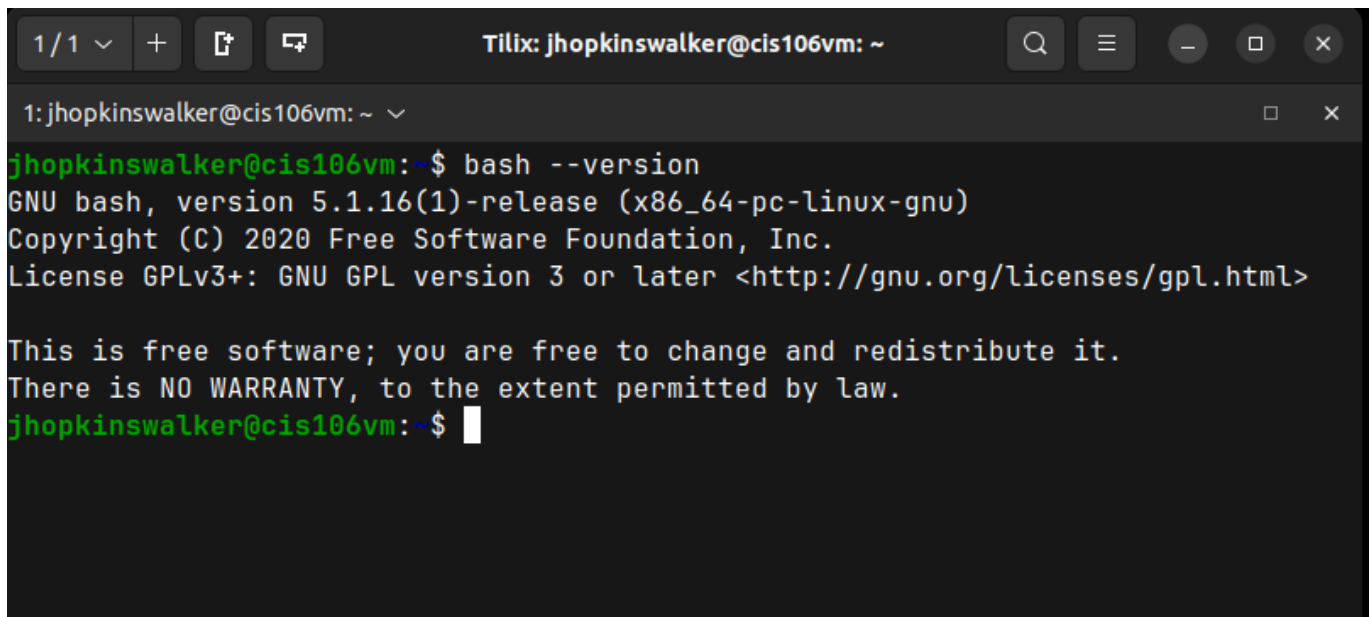


Week Report 3

Completed work for week 3

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

Practice 2: Accessing the Bash Shell



```
1/1  +  [icon] [icon]  Tilix: jhopkinswalker@cis106vm: ~  [search] [menu] [minus] [maximize] [close]
1:jhopkinswalker@cis106vm: ~  [icon] [close]
jhopkinswalker@cis106vm:~$ 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.
jhopkinswalker@cis106vm:~$
```

Practice 3: Using the command history

```
1/1 + [ ] [ ] Tilix: jhopkinswalker@cis106vm: ~
1: jhopkinswalker@cis106vm: ~
562  uname -a
563  history
564  561
565  echo "hello world"
566  echo "hello world"561
567  clear
568  history
569  clear
570  date
571  echo "hello world"
572  uname -a
573  history
jhopkinswalker@cis106vm:~$ !571
echo "hello world"
hello world
jhopkinswalker@cis106vm:~$ !!
echo "hello world"
hello world
jhopkinswalker@cis106vm:~$ echo "hello"
hello
jhopkinswalker@cis106vm:~$ !!world
echo "hello"world
helloworld
jhopkinswalker@cis106vm:~$
```

Practice 4: My First Shell Script

```
1/1 + [ ] [ ] Tilix: jhopkinswalker@cis106vm: ~
1: jhopkinswalker@cis106vm: ~
jhopkinswalker@cis106vm:~$ bash ~/scripts/hello.sh
Hello World
I am learning Linux
This is my first shell script
jhopkinswalker@cis106vm:~$
```

Practice 5: Using Man

```
1/1 v + T R TiliX: jhopkinswalker@cis106vm: ~
jhopkinswalker@cis106vm: ~
jhopkinswalker@cis106vm: $ uname -s
Linux
jhopkinswalker@cis106vm: $ uname -n
cis106vm
jhopkinswalker@cis106vm: $ uname -io
x86_64 GNU/Linux
jhopkinswalker@cis106vm: $ man date
jhopkinswalker@cis106vm: $ man df
jhopkinswalker@cis106vm: $ man free
jhopkinswalker@cis106vm: $ man clear
jhopkinswalker@cis106vm: $ man history
jhopkinswalker@cis106vm: $ free --giga
              total        used        free      shared  buff/cache   available
Mem:           2          1          0          0          0          0
Swap:           4          0          3          0          0          0
jhopkinswalker@cis106vm: $

-g, --gibi
    Display the amount of
    memory in gibibytes.

--tebi Display the amount of
memory in tebibytes.

--pebi Display the amount of
memory in pebibytes.

--kilo Display the amount of
memory in kilobytes. Im-
plies --si.

--mega Display the amount of
memory in megabytes. Im-
plies --si.

--giga Display the amount of
memory in gigabytes. Im-
plies --si.
```

Practice 6: Using Help

```
1/1 v + T R TiliX: jhopkinswalker@cis106vm: ~
jhopkinswalker@cis106vm: ~
jhopkinswalker@cis106vm: $ date
%a locale's time representation (e.g., 23:13:48)
%y last two digits of year (00..99)
%Y year
%Z +hhmm numeric time zone (e.g., -0400)
%z +hh:mm numeric time zone (e.g., -04:00)
%:z +hh:mm:ss numeric time zone (e.g., -04:00:00)
%::z numeric time zone with : to necessary precision (e.g., -04, +05:30)
%Z alphabetic time zone abbreviation (e.g., EDT)

By default, date pads numeric fields with zeroes.
The following optional flags may follow '%':

- (hyphen) do not pad the field
_ (underscore) pad with spaces
0 (zero) pad with zeros
+ pad with zeros, and put '+' before future years with >4 digits
^ use upper case if possible
# use opposite case if possible

After any flags comes an optional field width, as a decimal number;
then an optional modifier, which is either
E to use the locale's alternate representations if available, or
O to use the locale's alternate numeric symbols if available.

Examples:
Convert seconds since the epoch (1970-01-01 UTC) to a date
$ date --date='@2147483647'

Show the time on the west coast of the US (use tzselect(1) to find TZ)
$ TZ='America/Los_Angeles' date

Show the local time for 9AM next Friday on the west coast of the US
$ date --date='TZ="America/Los_Angeles" 09:00 next Fri'

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/date>
or available locally via: info '(coreutils) date invocation'
jhopkinswalker@cis106vm: $

jhopkinswalker@cis106vm: $ whatis ls
ls (1) - list directory contents
jhopkinswalker@cis106vm: $ whatis pwd
pwd (1) - print name of current/working directory
jhopkinswalker@cis106vm: $ whatis apt
apt (8) - command-line interface
jhopkinswalker@cis106vm: $ whatis sudo
sudo (8) - execute a command as another user
jhopkinswalker@cis106vm: $
```

Practice 7: Using Cheat!

```
1/1 v + T R TiliX: jhopkinswalker@cis106vm: ~
jhopkinswalker@cis106vm: ~
# 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 -xzvf /path/to/foo.tgz
tar -xzvf /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 -Ipixz ...

# To append a new file to an old tar archive:
tar -rf <archive.tar> <new-file-to-append>
jhopkinswalker@cis106vm: $

# 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 -xzvf /path/to/foo.tgz
tar -xzvf /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/

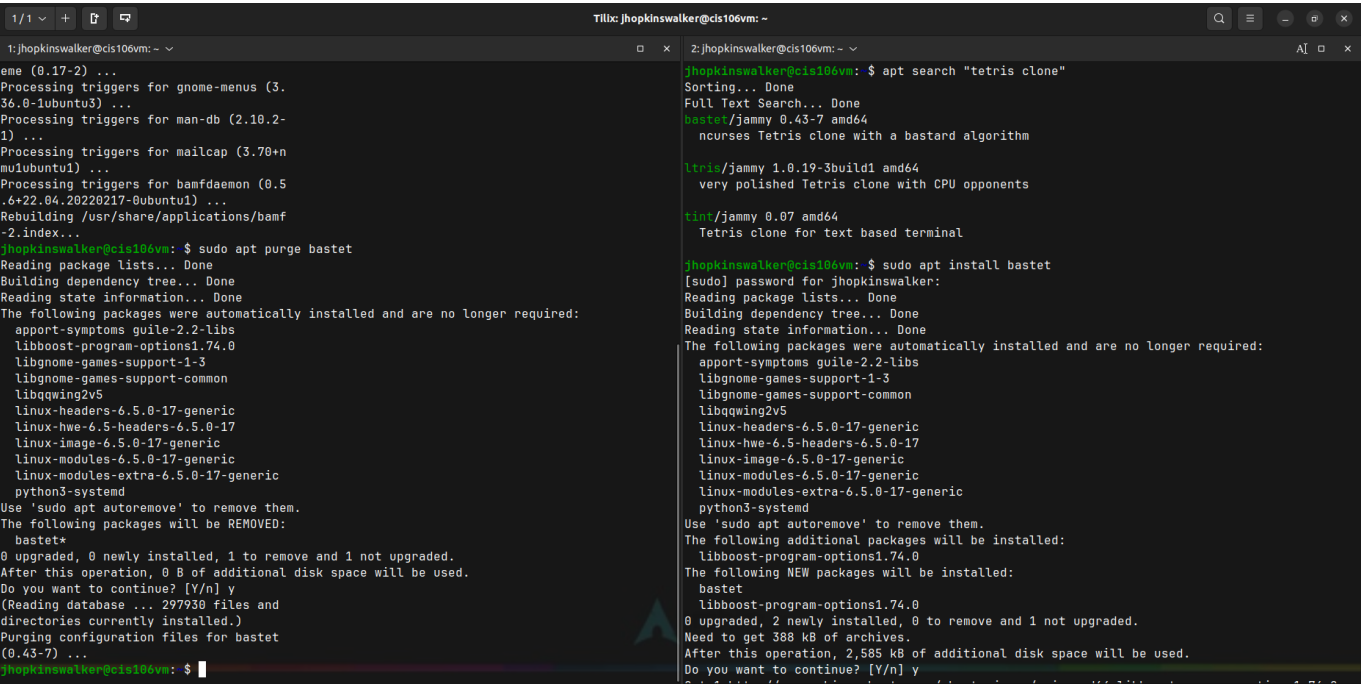
# To list the content of an .tar.bz2 archive:
tar -tjvf /path/to/foo.tar.bz2

# 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/

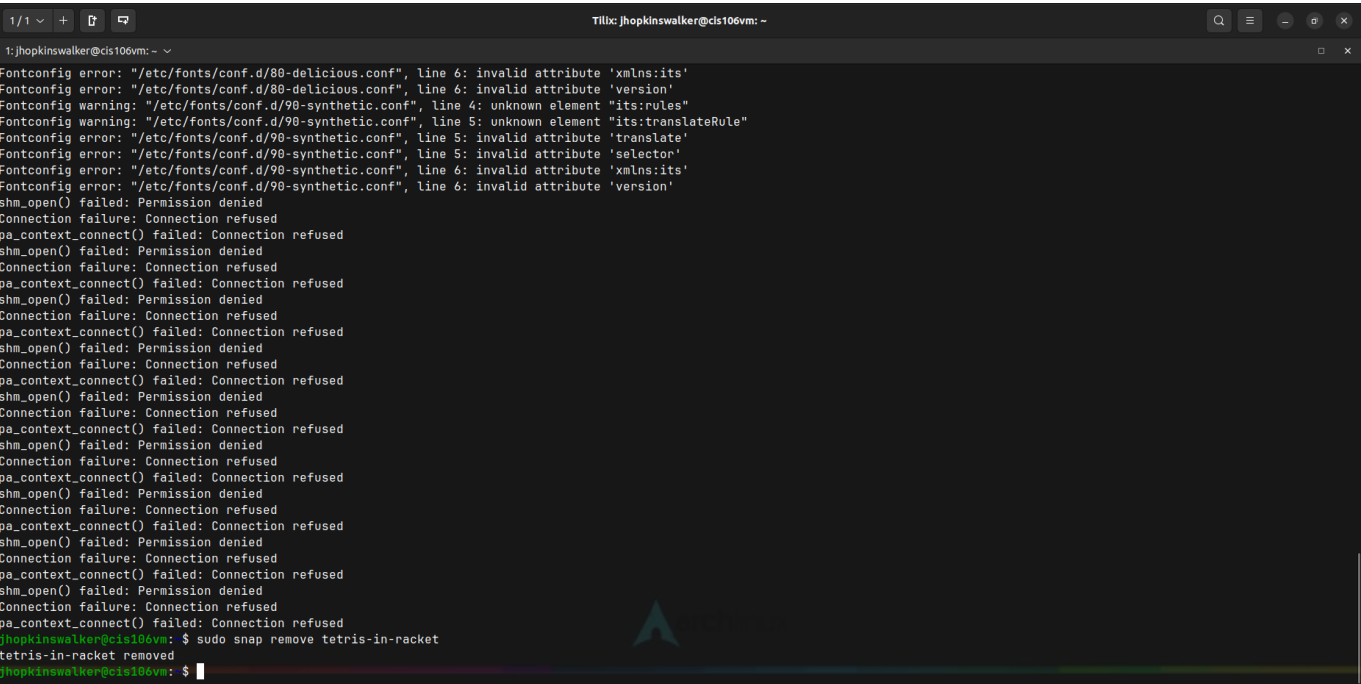
# To use parallel (multi-threaded) implementation of compression algorithms:
tar -z ... -> tar -Ipigz ...
tar -j ... -> tar -Ipbzip2 ...
tar -J ... -> tar -Ipixz ...

# To append a new file to an old tar archive:
tar -rf <archive.tar> <new-file-to-append>
jhopkinswalker@cis106vm: $
```

Practice 1: Managing Software



Practice 3: Installing and Removing Snaps



Practice 4: Working with Flatpak

```
1/jhopkinswalker@cis106vm: ~  
The following packages were automatically installed and are no longer required:  
  apport-symptoms guile-2.2-libs libboost-program-options1.74.0  
  libgnome-games-support-1-3 libgnome-games-support-common libqwing2v5  
  linux-headers-6.5.0-17-generic linux-hwe-6.5-headers-6.5.0-17  
  linux-image-6.5.0-17-generic linux-modules-6.5.0-17-generic  
  linux-modules-extra-6.5.0-17-generic python3-systemd  
Use 'sudo apt autoremove' to remove them.  
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.  
jhopkinswalker@cis106vm: $ flatpak remote-add --if-not-exists flathub https://dl.flathub.org/repo/flathub.flatpakrepo  
jhopkinswalker@cis106vm: $ flatpak install flathub io.gitlab.librewolf-community  
Looking for matches...  
Required runtime for io.gitlab.librewolf-community/x86_64/stable (runtime/org.freedesktop.Platform/x86_64/23.08) found in remote flathub  
Do you want to install it? [Y/n]: y  
  
io.gitlab.librewolf-community permissions:  
ipc                network          cups             fallback-x11  
pcsc               pulseaudio      wayland          x11  
dri                file access [1] dbus access [2] bus ownership [3]  
system dbus access [4]  
  
[1] xdg-download, xdg-run/pipewire-0  
[2] org.ally.Bus, org.freedesktop.FileManager1, org.freedesktop.Notifications,  
    org.freedesktop.ScreenSaver, org.gnome.SessionManager, org.gtk.vfs.*  
[3] io.gitlab.librewolf.*, org.mpris.MediaPlayer2.firefox.*  
[4] org.freedesktop.NetworkManager  
  
ID                Branch           Op Remote Download  
1. [ ] org.freedesktop.Platform.GL.default 23.08 i flathub 163.0 MB / 162.3 MB  
2. [ ] org.freedesktop.Platform.GL.default 23.08-extra i flathub 17.9 MB / 162.3 MB  
3. [ ] org.freedesktop.Platform.Locale 23.08 i flathub 17.9 kB / 359.9 MB  
4. [ ] org.freedesktop.Platform.ffmpeg-full 23.08 i flathub 9.7 MB / 9.2 MB  
5. [ ] org.freedesktop.Platform.openh264 2.2.0 i flathub 883.7 kB / 944.3 kB  
6. [ ] org.freedesktop.Platform 23.08 i flathub 257.2 MB / 225.6 MB  
7. [ ] io.gitlab.librewolf-community stable i flathub 115.3 MB / 113.3 MB  
  
Installation complete.  
jhopkinswalker@cis106vm: $
```