

# Week Report 3

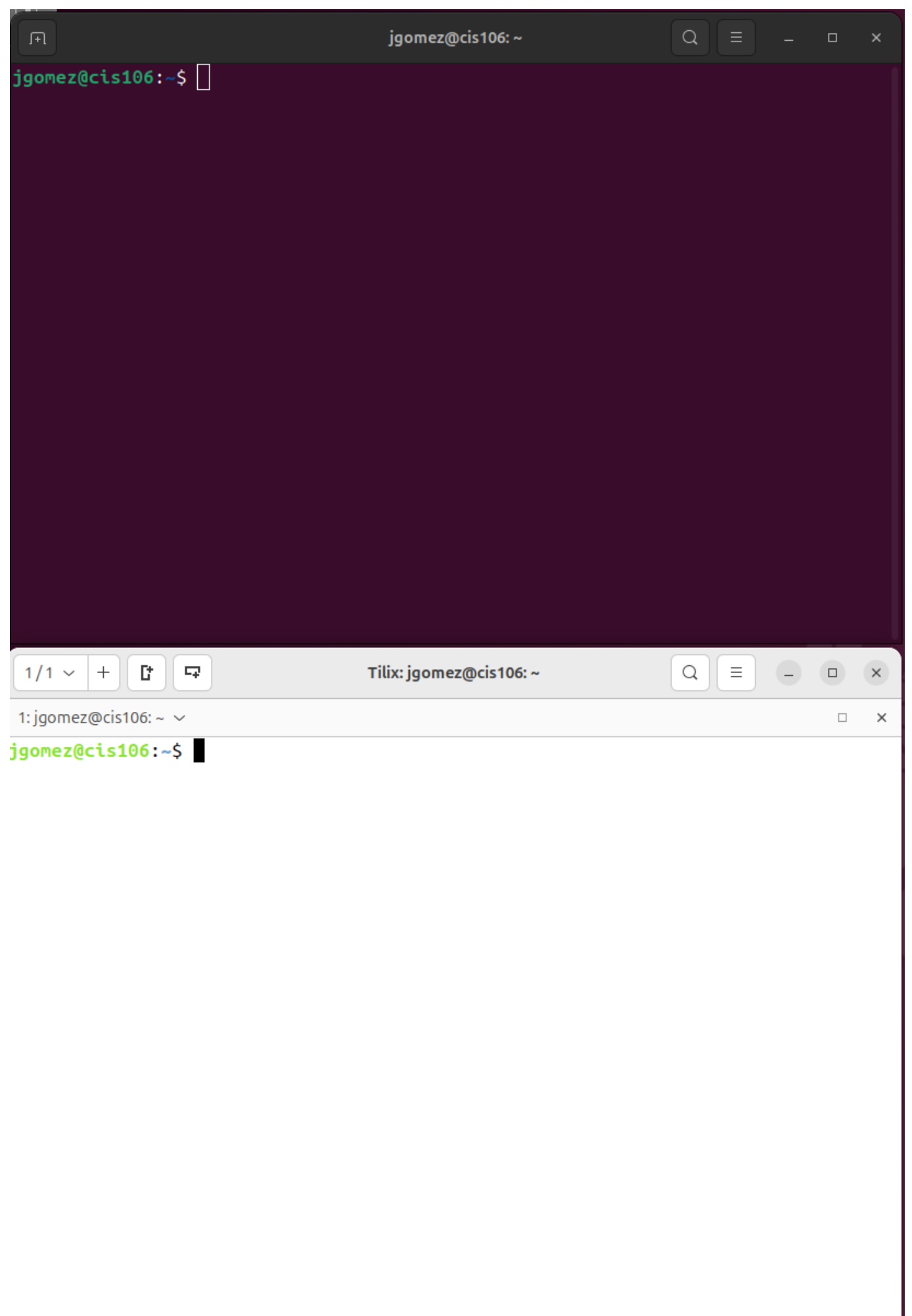
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## Completed work Week 3

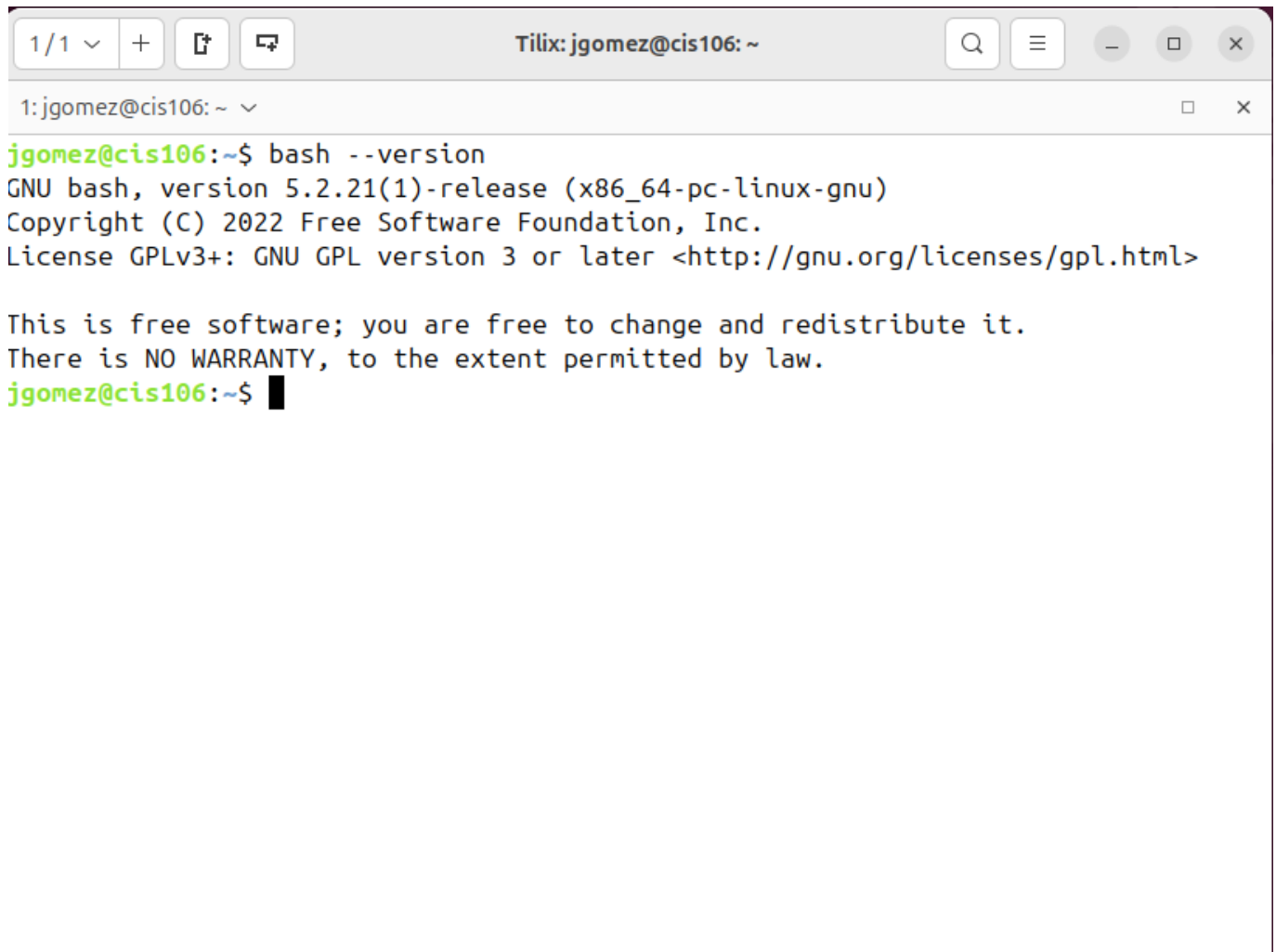
- [Lab3](#)
- [notes3](#)

## Practice

### Practice 1



## Practice 2



The screenshot shows a terminal window titled "Tilix: jgomez@cis106: ~". The terminal displays the output of the command `bash --version`. The output text is as follows:

```
jgomez@cis106:~$ bash --version
GNU bash, version 5.2.21(1)-release (x86_64-pc-linux-gnu)
Copyright (C) 2022 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.
jgomez@cis106:~$
```

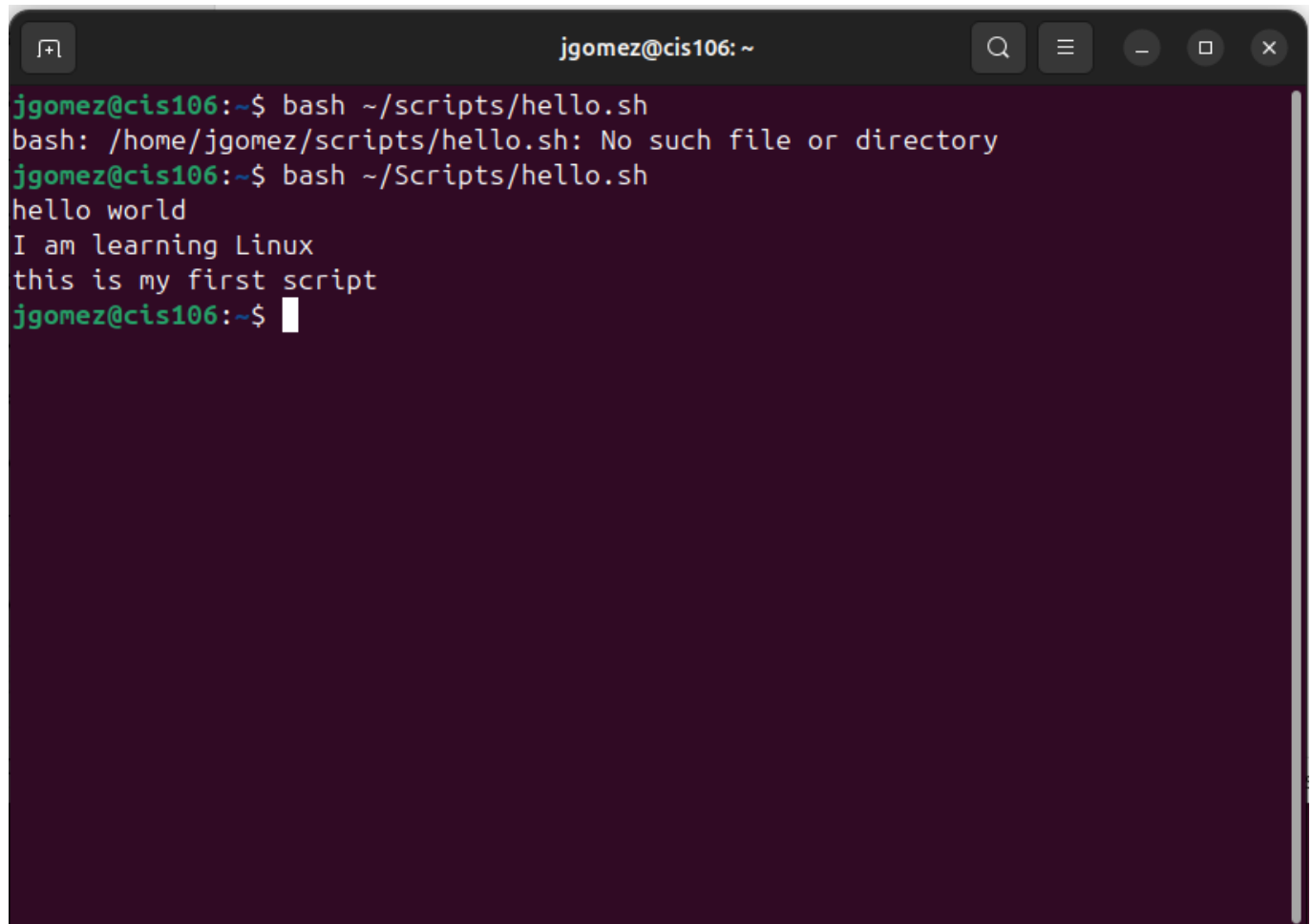
## Practice 3



The screenshot shows a Tilix terminal window titled "Tilix: jgomez@cis106: ~". The terminal displays a list of commands and their outputs, numbered 79 to 93. The commands include `cd`, `bash --version`, `clear`, `date`, `echo "hello world"`, `uname -a`, `history`, and `history59`. The output of `history` shows the command history, including `echo "I like Linux"`. The terminal also shows the output of `echo "hello world"` and `echo "hello"`. The prompt `jgomez@cis106:~$` is visible at the bottom of the terminal.

```
79 cd
80 bash --version
81 clear
82 date
83 echo "hello world"
84 uname -a
85 history
86 history59
87 echo "I like Linux"
88 history
89 clear
90 date
91 echo "hello world"
92 uname -a
93 history
jgomez@cis106:~$ !91
echo "hello world"
hello world
jgomez@cis106:~$ echo "hello"
hello
jgomez@cis106:~$ !! world
echo "hello" world
hello world
jgomez@cis106:~$
```

Practice 4

A terminal window titled 'jgomez@cis106: ~' with standard window controls. The terminal shows a user attempting to run a script at two different paths. The first attempt at ~/scripts/hello.sh fails with a 'No such file or directory' error. The second attempt at ~/Scripts/hello.sh succeeds, displaying the script's output: 'hello world', 'I am learning Linux', and 'this is my first script'. The prompt returns to the user after each command.

```
jgomez@cis106:~$ bash ~/scripts/hello.sh
bash: /home/jgomez/scripts/hello.sh: No such file or directory
jgomez@cis106:~$ bash ~/Scripts/hello.sh
hello world
I am learning Linux
this is my first script
jgomez@cis106:~$
```

Practice 5

1/1 +

Tilix: jgomez@cis106: ~

Q ☰ - □ ×

1: jgomez@cis106: ~

2: jgomez@cis106: ~

UNAME(1) User Commands UNAME(1)

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

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

jgomez@cis106:~\$ uname -s

Linux

jgomez@cis106:~\$ uname -n

cis106

jgomez@cis106:~\$ uname -io

x86\_64 GNU/Linux

jgomez@cis106:~\$ man date

jgomez@cis106:~\$ man df

jgomez@cis106:~\$ man free

jgomez@cis106:~\$ man clear

jgomez@cis106:~\$ man history

jgomez@cis106:~\$ free --giga

	total	used	free	shared	buff/ca
Mem:	4	3	0	0	
1	0				
Swap:	4	0	3		

jgomez@cis106:~\$

Practice 6

1/1 + [icons]

Tilix: jgomez@cis106: ~

[search] [menu] [close]

1: jgomez@cis106: ~

A [icon] [icon] [icon]

2: jgomez@cis106: ~

A [icon] [icon] [icon]

jgomez@cis106:~\$ free --help

Usage:  
free [options]

Options:

-b, --bytes	show output in bytes
-k, --kilo	show output in kilobytes
-m, --mega	show output in megabytes
-g, --giga	show output in gigabytes
-t, --tera	show output in terabytes
-p, --peta	show output in petabytes
-k, --kibi	show output in kibibytes
-m, --mebi	show output in mebibytes
-g, --gibi	show output in gibibytes
-t, --tebi	show output in tebibytes
-p, --pebi	show output in pebibytes
-h, --human	show human-readable output
-s, --si	use powers of 1000 not 1024
-l, --lohi	show detailed low and high memory statistics

jgomez@cis106:~\$ man --help

Usage: man [OPTION...] [SECTION] PAGE...

-C, --config-file=FILE use this user configuration file

-d, --debug emit debugging messages

-D, --default reset all options to their default values

--warnings[=WARNINGS] enable warnings from groff

Main modes of operation:

-f, --whatis equivalent to whatis

-k, --apropos equivalent to apropos

-K, --global-apropos search for text in all pages

-l, --local-file interpret PAGE argument(s) as local filename(s)

-w, --where, --path, --location print physical location of man page(s)

-W, --where-cat, --location-cat print physical location of cat file(s)

3: jgomez@cis106: ~

A [icon] [icon] [icon]

4: jgomez@cis106: ~

[icon] [icon] [icon]

jgomez@cis106:~\$ date --help

Usage: date [OPTION]... [+FORMAT]

or: date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]

Display date and time in the given FORMAT.

With -s, or with [MMDDhhmm[[CC]YY][.ss]], set the date and time.

Mandatory arguments to long options are mandatory for short options too.

-d, --date=STRING display time described by STRING, not 'now'

--debug annotate the parsed date, and warn about questionable usage to stderr

-f, --file=DATEFILE like --date; once for each line of DATEFILE

-I[FMT], --iso-8601[=FMT] output date/time in ISO 8601 format. FMT='date' for date only (the default), 'hours', 'minutes', 'seconds', or 'ns'

jgomez@cis106:~\$ whatis ls

ls (1) - list directory contents

jgomez@cis106:~\$ whatis pwd

pwd (1) - print name of current/working directory

jgomez@cis106:~\$ whatis apt

apt (8) - command-line interface

jgomez@cis106:~\$ whatis sudo

sudo (8) - execute a command as another user

jgomez@cis106:~\$

Practice 7

1/1 + [icons]

Tilix: jgomez@cis106: ~

1: jgomez@cis106: ~

4: jgomez@cis106: ~

5: jgomez@cis106: ~

```
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>
jgomez@cis106:~$
```

```
E: Could not open lock file /var/lib/dpkg/lock-front
ntend - open (13: Permission denied)
E: Unable to acquire the dpkg frontend lock (/var/
lib/dpkg/lock-frontend), are you root?
jgomez@cis106:~$ apt pip3 install Pigments
E: Invalid operation pip3
jgomez@cis106:~$ pip3 install Pigments
error: externally-managed-environment

× This environment is externally managed
➤ To install Python packages system-wide, try ap
t install
python3-xyz, where xyz is the package you are
install.

If you wish to install a non-Debian-packaged P
ython package,
create a virtual environment using python3 -m
venv path/to/venv.
Then use path/to/venv/bin/python and path/to/v
env/bin/pip. Make
sure you have python3-full installed.

If you wish to install a non-Debian packaged P
ython application,
it may be easiest to use pipx install xyz, whi
ch will manage a
virtual environment for you. Make sure you hav
e pipx installed.

See /usr/share/doc/python3.12/README.venv for
more information.

note: If you believe this is a mistake, please con
tact your Python installation or OS distribution p
rovider. You can override this, at the risk of bre
aking your Python installation or OS, by passing -
-b, --break-system-packages.
hint: See PEP 668 for the detailed specification.
jgomez@cis106:~$
```

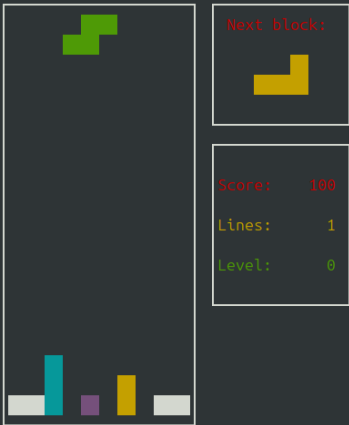
```
tar -xvf /path/to/foo.tar -C /path/to/destination/
# To create an uncompressed archive:
tar -cvf /path/to/foo.tar /path/to/foo/
# To extract a .tgz or .tar.gz archive:
tar -xzvf /path/to/foo.tgz
tar -xzvf /path/to/foo.tar.gz
# To create a .tgz or .tar.gz archive:
tar -czvf /path/to/foo.tgz /path/to/foo/
tar -czvf /path/to/foo.tar.gz /path/to/foo/
# To list the content of an .tgz or .tar.gz archiv
e:
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,p
ng,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>
jgomez@cis106:~$
```

Practice 1.1



```
Tilix: jgomez@cis106: ~  
2:jgomez@cis106: ~  
jgomez@cis106:~$ sudo apt remove bastet  
[sudo] password for jgomez:  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following package was automatically installed and is no longer require  
d:  
  libboost-program-options1.83.0  
Use 'sudo apt autoremove' to remove it.  
The following packages will be REMOVED:  
  bastet  
0 upgraded, 0 newly installed, 1 to remove and 32 not upgraded.  
After this operation, 214 kB disk space will be freed.  
Do you want to continue? [Y/n] y  
(Reading database ... 166525 files and directories currently installed.)  
Removing bastet (0.43-7build1) ...  
Processing triggers for hicolor-icon-theme (0.17-2) ...  
Processing triggers for gnome-menus (3.36.0-1ubuntu3) ...  
Processing triggers for man-db (2.12.0-4build2) ...  
Processing triggers for desktop-file-utils (0.27-2build1) ...  
jgomez@cis106:~$ sudo apt purge bastet  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following package was automatically installed and is no longer require  
d:  
  libboost-program-options1.83.0  
Use 'sudo apt autoremove' to remove it.  
The following packages will be REMOVED:  
  bastet*  
0 upgraded, 0 newly installed, 1 to remove and 32 not upgraded.  
After this operation, 0 B of additional disk space will be used.  
Do you want to continue? [Y/n] y  
(Reading database ... 166515 files and directories currently installed.)  
Purging configuration files for bastet (0.43-7build1) ...  
jgomez@cis106:~$  
jgomez@cis106:~$ apt search "tetris clone"  
Sorting... Done  
Full Text Search... Done  
bastet/noble 0.43-7build1 amd64  
  ncurses Tetris clone with a bastard algorithm  
  
ltris/noble 1.2.8-1 amd64  
  very polished Tetris clone with CPU opponents  
  
tint/noble 0.07 amd64  
  Tetris clone for text based terminal  
  
jgomez@cis106:~$
```

```
Tilix: jgomez@cis106: ~  
1:jgomez@cis106: ~  
2:jgomez@cis106: ~  
jgomez@cis106:~$ apt search "tetris clone"  
Sorting... Done  
Full Text Search... Done  
bastet/noble 0.43-7build1 amd64  
  ncurses Tetris clone with a bastard algorithm  
  
ltris/noble 1.2.8-1 amd64  
  very polished Tetris clone with CPU opponents  
  
tint/noble 0.07 amd64  
  Tetris clone for text based terminal  
  
jgomez@cis106:~$
```



Practice 3.1

```
1/1 v + [ ] [ ] Tilix: jgomez@cis106: ~
1: jgomez@cis106: ~ v
jgomez@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
jgomez@cis106:~$ sudo snap install tetris-in-racket
error: cannot perform the following tasks:
- Download snap "core" (17200) from channel "stable" (unexpected EOF)
jgomez@cis106:~$ tetris-in-racket --help
tetris-in-racket: command not found
jgomez@cis106:~$ man tetris-in-racket
No manual entry for tetris-in-racket
jgomez@cis106:~$ sudo snap remove tetris-in-racket
snap "tetris-in-racket" is not installed
jgomez@cis106:~$ sudo snap install core
error: cannot perform the following tasks:
- Download snap "core" (17200) from channel "stable" (unexpected EOF)
jgomez@cis106:~$ [ ]
```