

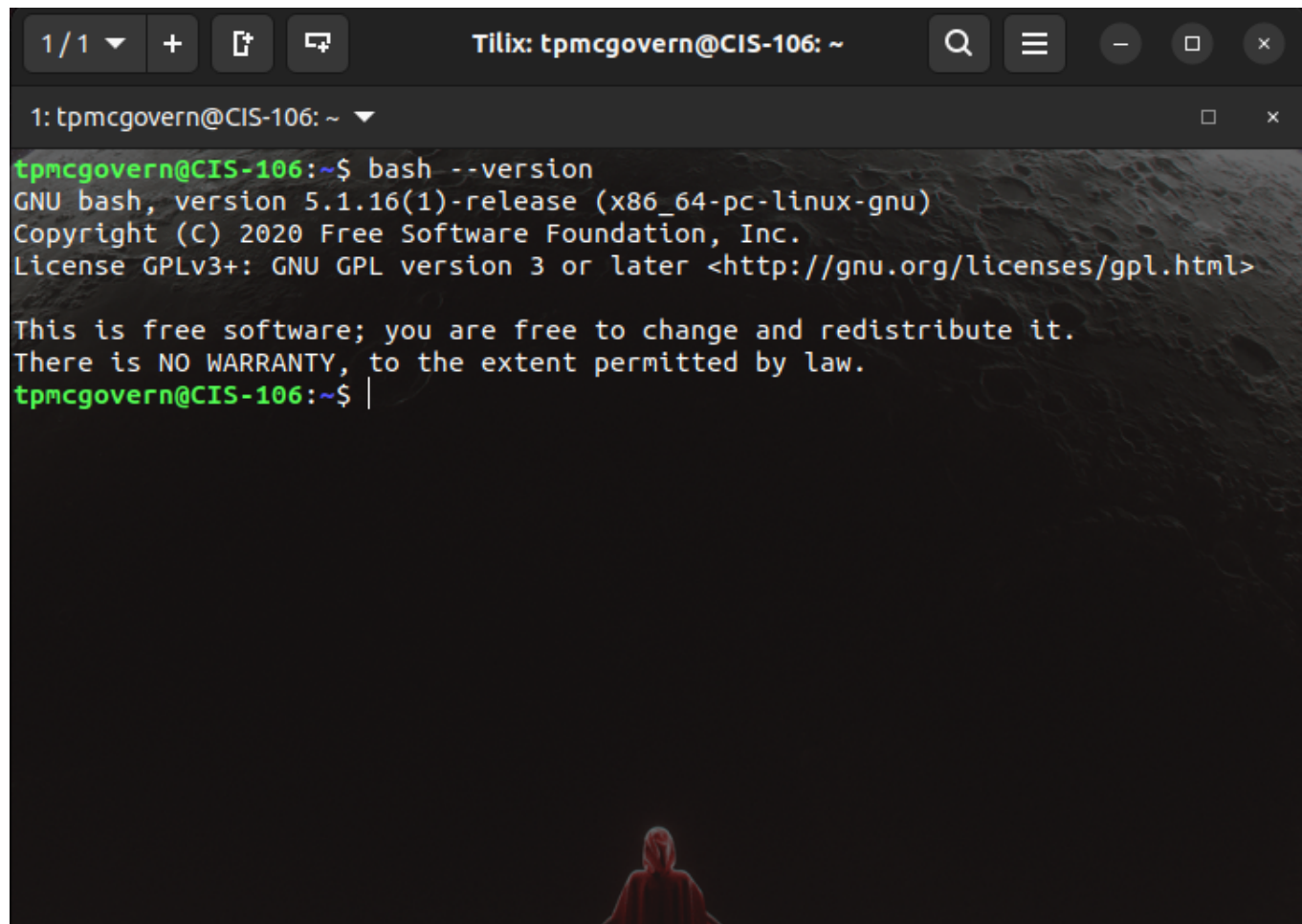
# Week Report 3

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## Completed work for week 3

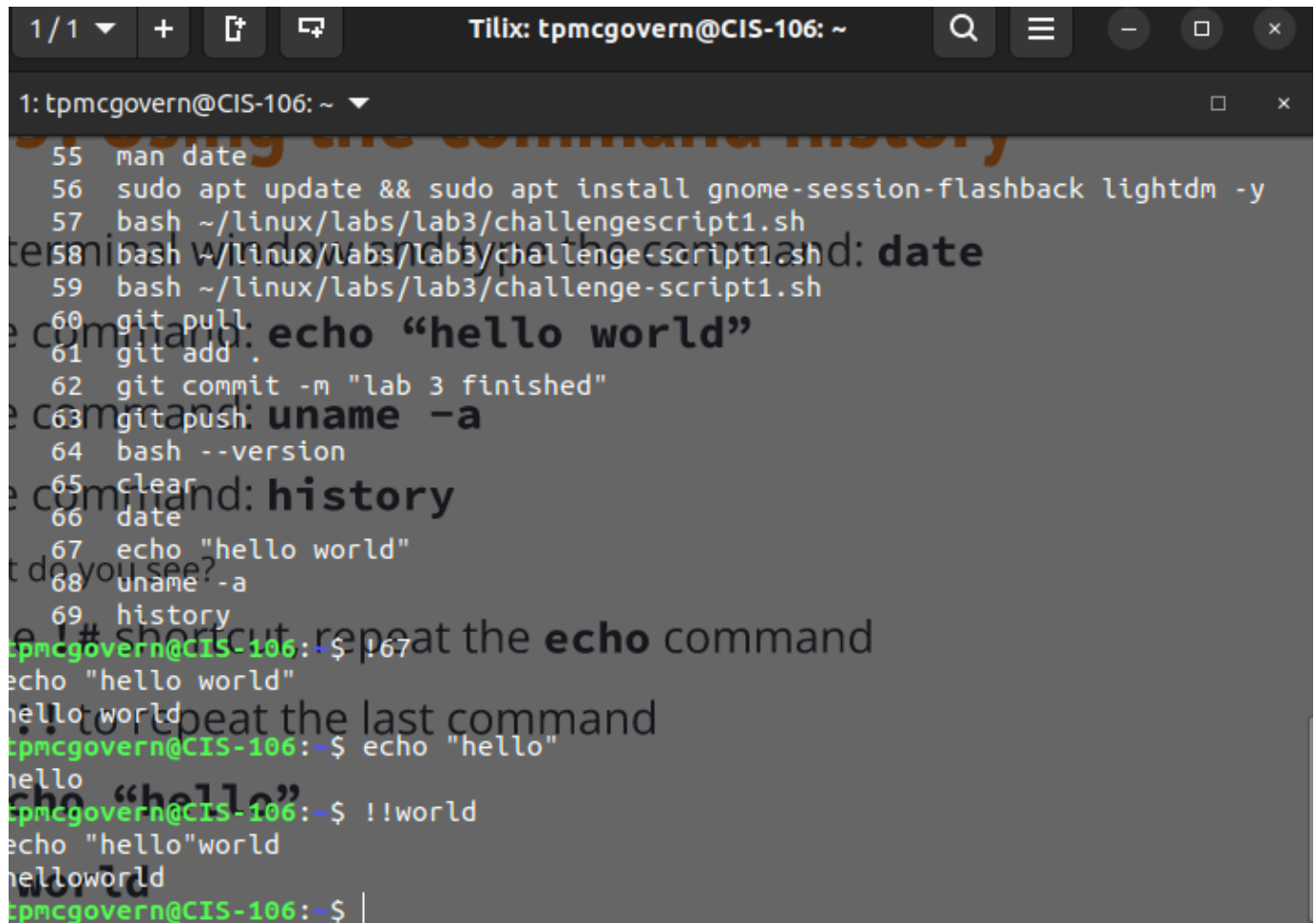
- [Lab 3](#)

### Practice 2: Accessing the bash shell



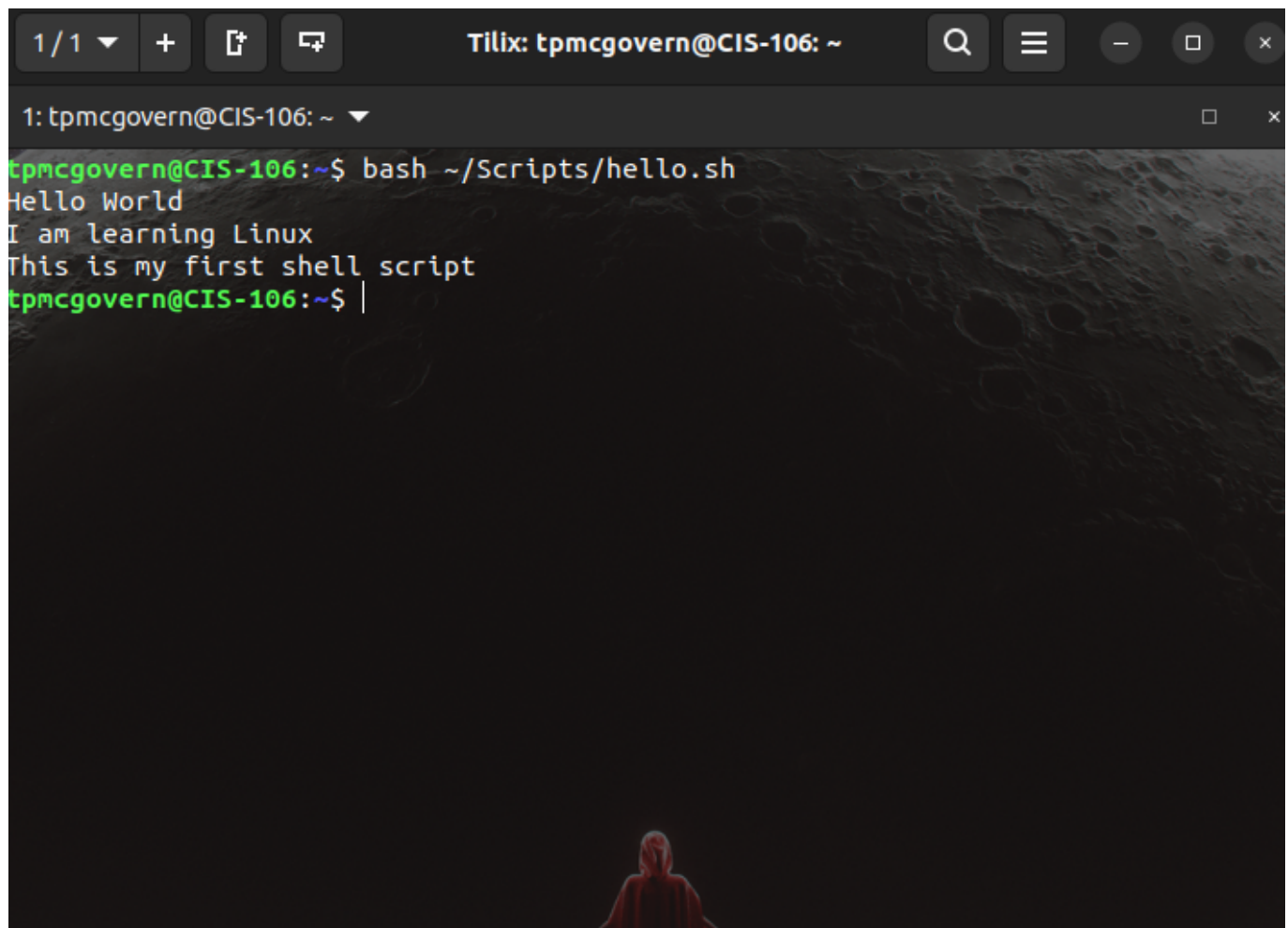
```
Tilix: tpmcgovern@CIS-106: ~  
1: tpmcgovern@CIS-106: ~  
tpmcgovern@CIS-106:~$ bash --version  
GNU bash, version 5.1.16(1)-release (x86_64-pc-linux-gnu)  
Copyright (C) 2020 Free Software Foundation, Inc.  
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>  
  
This is free software; you are free to change and redistribute it.  
There is NO WARRANTY, to the extent permitted by law.  
tpmcgovern@CIS-106:~$ |
```

### Practice 3: Using the command history



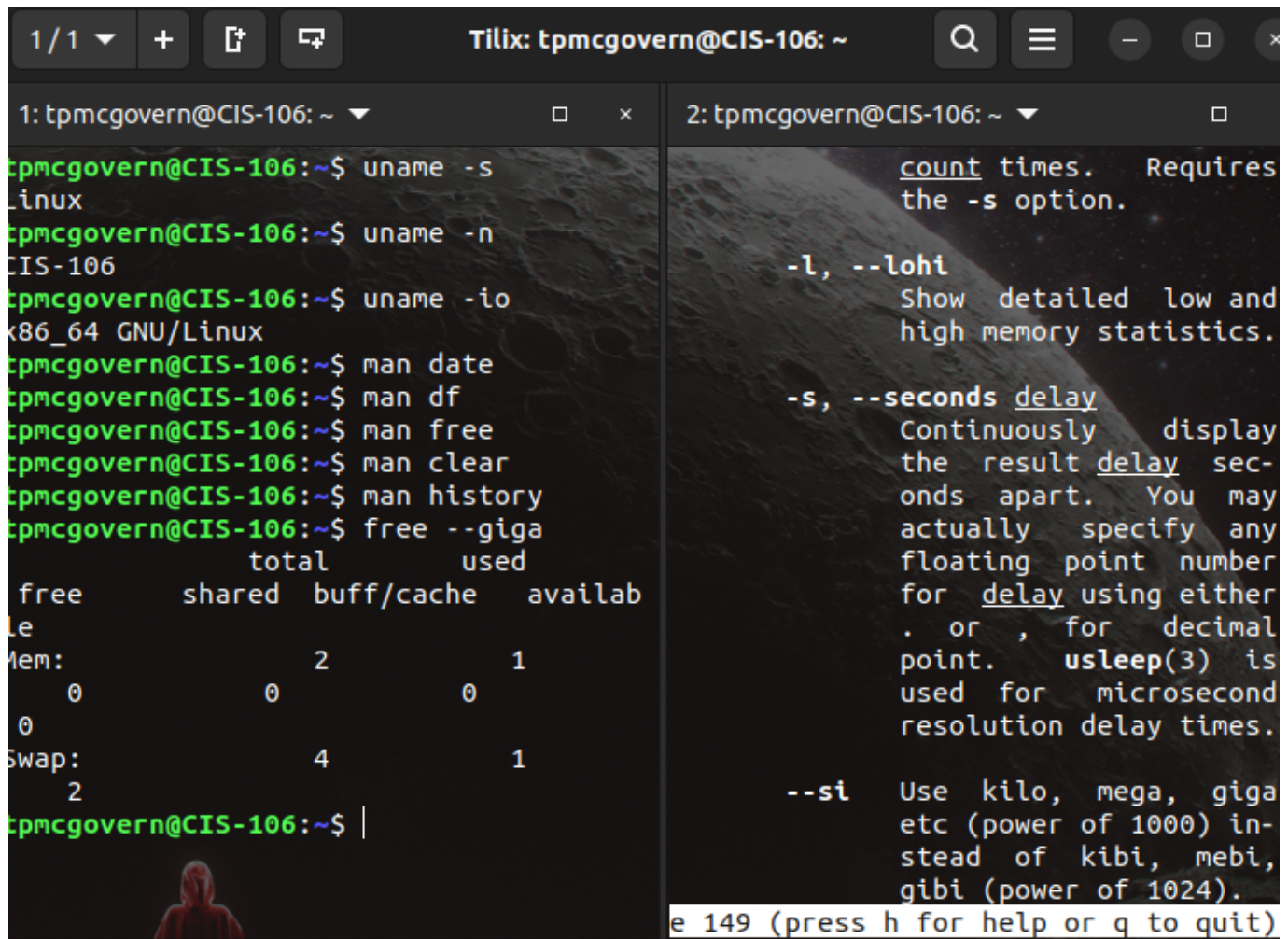
```
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1: tpmcgovern@CIS-106: ~ □ ×
55 man date
56 sudo apt update && sudo apt install gnome-session-flashback lightdm -y
57 bash ~/linux/labs/lab3/challengescript1.sh
58 bash ~/linux/labs/lab3/challengescript1.sh
59 bash ~/linux/labs/lab3/challenge-script1.sh
60 git pull
61 git add .
62 git commit -m "lab 3 finished"
63 git push
64 bash --version
65 clear
66 date
67 echo "hello world"
68 uname -a
69 history
tpmcgovern@CIS-106:~$ !67
echo "hello world"
hello world
tpmcgovern@CIS-106:~$ echo "hello"
hello
tpmcgovern@CIS-106:~$ !!world
echo "hello"world
helloworld
tpmcgovern@CIS-106:~$ |
```

#### Practice 4: My first shell script

A screenshot of a Tilix terminal window. The title bar at the top reads "Tilix: tpmcgovern@CIS-106: ~". The terminal window has a dark background with a subtle image of a person in a red hoodie looking up at a starry sky. The terminal text shows the user running a shell script: 

```
tpmcgovern@CIS-106:~$ bash ~/Scripts/hello.sh
Hello World
I am learning Linux
This is my first shell script
tpmcgovern@CIS-106:~$ |
```

## Practice 5: Using man



```
1: tpmcgovern@CIS-106: ~
tpmcgovern@CIS-106:~$ uname -s
Linux
tpmcgovern@CIS-106:~$ uname -n
CIS-106
tpmcgovern@CIS-106:~$ uname -io
x86_64 GNU/Linux
tpmcgovern@CIS-106:~$ man date
tpmcgovern@CIS-106:~$ man df
tpmcgovern@CIS-106:~$ man free
tpmcgovern@CIS-106:~$ man clear
tpmcgovern@CIS-106:~$ man history
tpmcgovern@CIS-106:~$ free --giga
              total        used
free      shared buff/cache   availab
le
Mem:      0          0      2          1
0
Swap:      4          1
2
tpmcgovern@CIS-106:~$ |

count times. Requires
the -s option.

-l, --lohi
Show detailed low and
high memory statistics.

-s, --seconds delay
Continuously display
the result delay sec-
onds apart. You may
actually specify any
floating point number
for delay using either
. or , for decimal
point. usleep(3) is
used for microsecond
resolution delay times.

--si Use kilo, mega, giga
etc (power of 1000) in-
stead of kibi, mebi,
gibi (power of 1024).

e 149 (press h for help or q to quit)
```

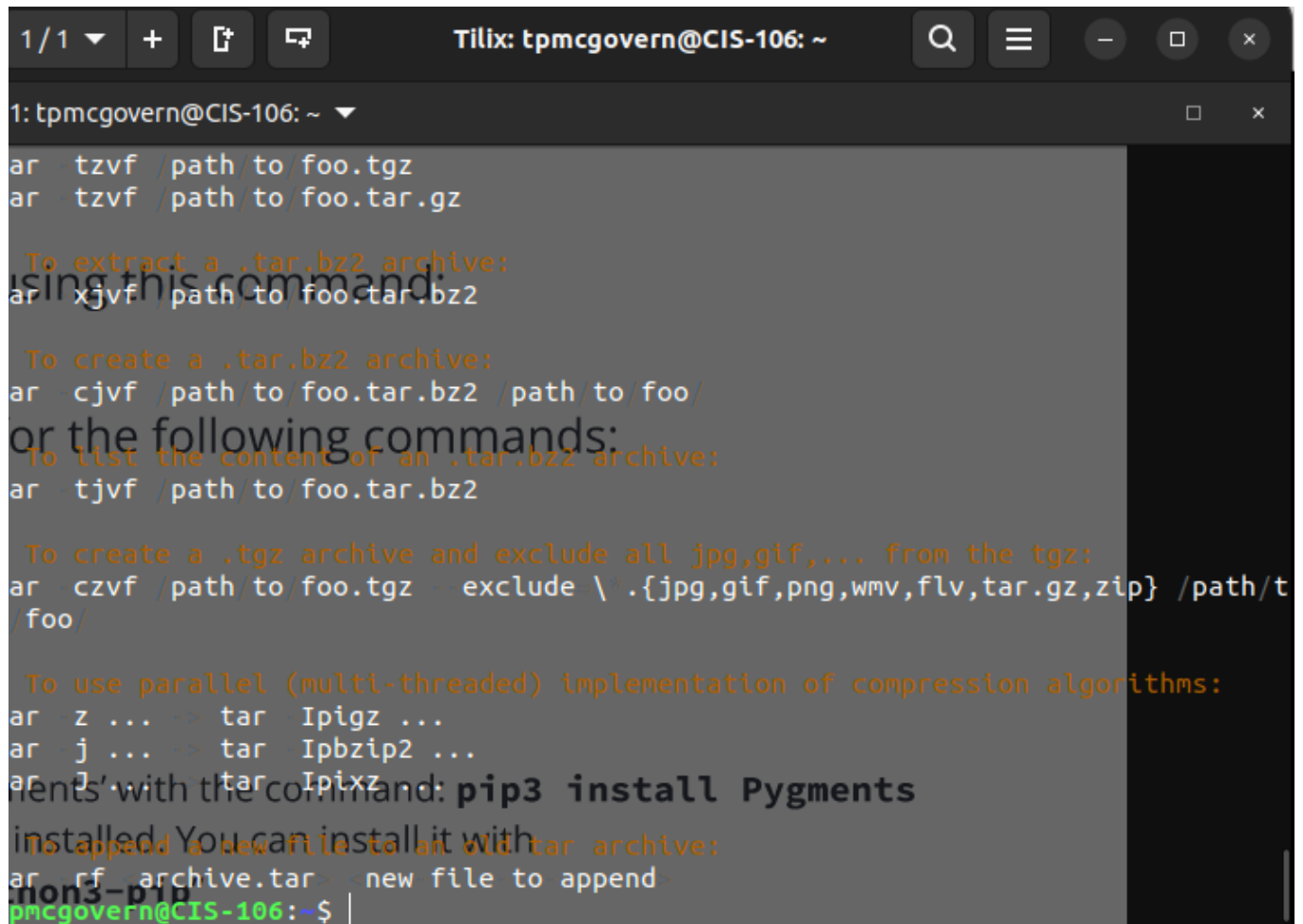
## Practice 6: Using the help option

```
Tilix: tpmcgovern@CIS-106: ~  
1: tpmcgovern@CIS-106: ~  
tpmcgovern@CIS-106:~$ whatis ls  
ls (1) - list directory contents  
tpmcgovern@CIS-106:~$ whatis pwd  
pwd (1) - print name of current/working directory  
tpmcgovern@CIS-106:~$ whatis apt  
apt (8) - command-line interface  
tpmcgovern@CIS-106:~$ whatis sudo  
sudo (8) - execute a command as another user  
tpmcgovern@CIS-106:~$
```

the following commands:

to find out what these commands do:

Practice 7: Cheat!



The screenshot shows a terminal window titled "Tilix: tpmcgovern@CIS-106: ~". The terminal displays a list of tar commands and their usage instructions. The commands are: `tar tzvf /path/to/foo.tgz`, `tar tzvf /path/to/foo.tar.gz`, `tar xjvf /path/to/foo.tar.bz2`, `tar cjvf /path/to/foo.tar.bz2 /path/to/foo/`, `tar tjvf /path/to/foo.tar.bz2`, `tar czvf /path/to/foo.tgz --exclude '{.jpg,gif,png,wmv,flv,tar.gz,zip}' /path/to/foo/`, `tar z ... -> tar -I pigz ...`, `tar j ... -> tar -I pbzip2 ...`, `tar J ... -> tar -I pixz ...`, and `tar rf archive.tar - new file to append`. The prompt is `tpmcgovern@CIS-106:~$`.

```
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1: tpmcgovern@CIS-106: ~ ▾ □ ×

ar  tzvf /path/to/foo.tgz
ar  tzvf /path/to/foo.tar.gz

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

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

or the following commands:
To list the content of an .tar.bz2 archive:
ar  tjvf /path/to/foo.tar.bz2

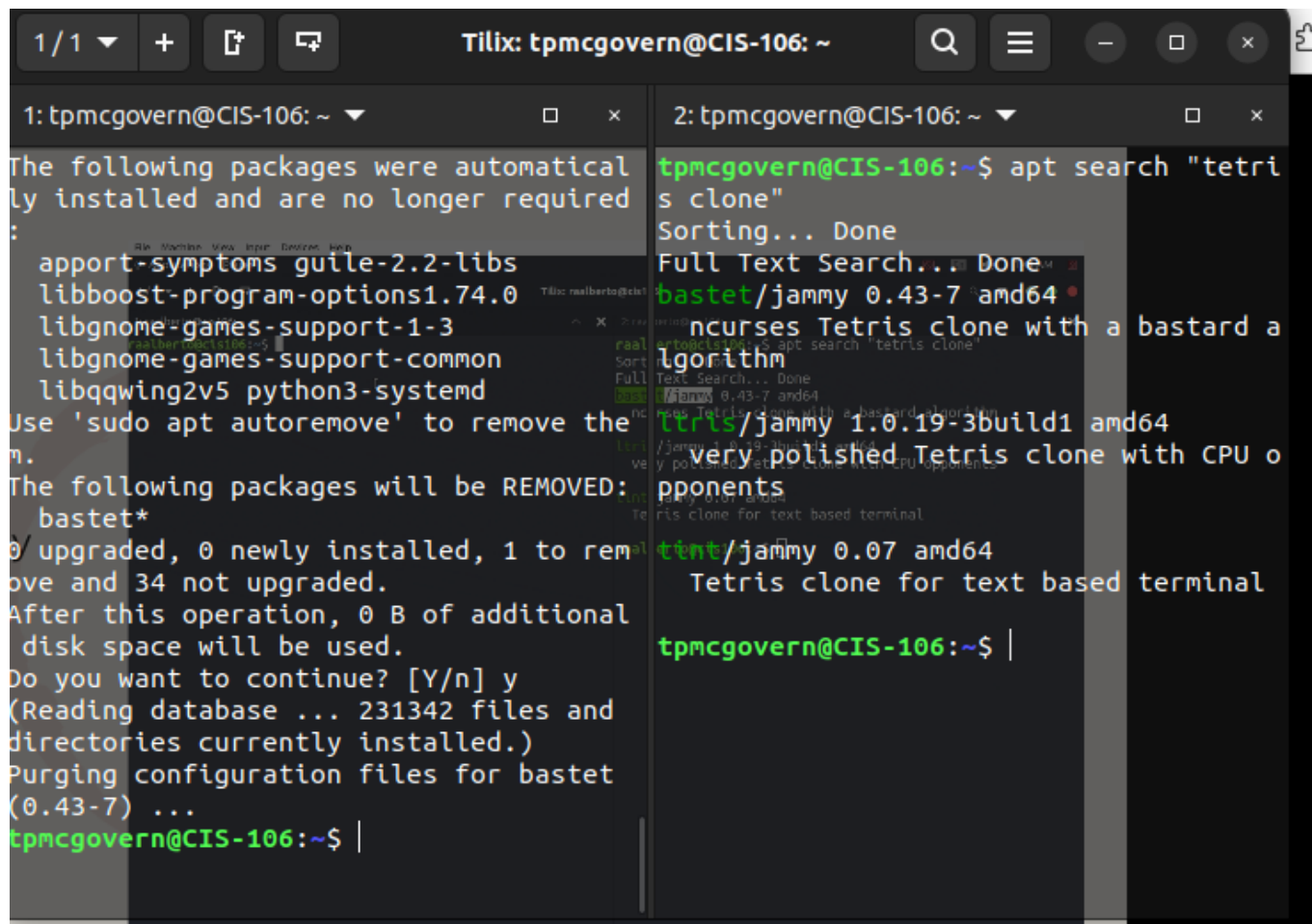
To create a .tgz archive and exclude all jpg,gif,... from the tgz:
ar  czvf /path/to/foo.tgz --exclude '{.jpg,gif,png,wmv,flv,tar.gz,zip}' /path/t
/foo/

To use parallel (multi-threaded) implementation of compression algorithms:
ar  z ... -> tar -I pigz ...
ar  j ... -> tar -I pbzip2 ...
ar  J ... -> tar -I pixz ...

ments with the command: pip3 install Pygments
installed. You can install it with
non3-pip
tpmcgovern@CIS-106:~$
```

## Practice 1: Managing software





```
1: tpmcgovern@CIS-106: ~  
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  
  libqqwing2v5 python3-systemd  
Use 'sudo apt autoremove' to remove the  
the following packages will be REMOVED:  
  bastet*  
0/ upgraded, 0 newly installed, 1 to remove  
and 34 not upgraded.  
After this operation, 0 B of additional  
disk space will be used.  
Do you want to continue? [Y/n] y  
(Reading database ... 231342 files and  
directories currently installed.)  
Purging configuration files for bastet  
(0.43-7) ...  
tpmcgovern@CIS-106:~$  
  
2: tpmcgovern@CIS-106: ~  
tpmcgovern@CIS-106:~$ apt search "tetris  
clone"  
Sorting... Done  
Full Text Search... Done  
bastet/jammy 0.43-7 amd64  
  ncurses Tetris clone with a bastard a  
  lgorithm  
  tetr/s/jammy 1.0.19-3build1 amd64  
  very polished Tetris clone with CPU o  
  pponents  
  tetr/jammy 0.07 amd64  
    Tetris clone for text based terminal  
tpmcgovern@CIS-106:~$
```

### Practice 3: Installing and removing snaps

```
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1: tpmcgovern@CIS-106: ~ ▾

tpmcgovern@CIS-106:~$ snap search "tetris clone"
name                Version  Publisher  Notes  Summary
tetris-in-racket    1.2-2   brunonova  -      Tetris clone developed in Racket
tetrtris            0.57    bladernr   -      Console based version of Tetris
fairtris            3.0.0.4 chronoscz  -      A fair implementation of Classic
Tetris® video game  1.0     kz6fittycent -      Poor Man's Tetris Clone
tris-windows        1.2.3   marisag1967 -      A free Tetris clone that follows
the original rules but adds some extras

tpmcgovern@CIS-106:~$ sudo snap install tetris-in-racket
tetris-in-racket 1.2-2 from Bruno Nova (brunonova) installed
tpmcgovern@CIS-106:~$ sudo snap remove tetris-in-racket
tetris-in-racket removed
tpmcgovern@CIS-106:~$ sudo snap remove tetris-in-racket
Connection failure: Connection refused
pa_context_connect() failed: Connection refused
shm_open() failed: Permission denied
Connection failure: Connection refused
pa_context_connect() failed: Connection refused
shm_open() failed: Permission denied
Connection failure: Connection refused
pa_context_connect() failed: Connection refused
shm_open() failed: Permission denied
Connection failure: Connection refused
pa_context_connect() failed: Connection refused
shm_open() failed: Permission denied
Connection failure: Connection refused
pa_context_connect() failed: Connection refused
raalberto@cls106:~$ sudo snap remove tetris-in-racket
Disconnect tetris-in-racket:x11 from snapd:x11
```