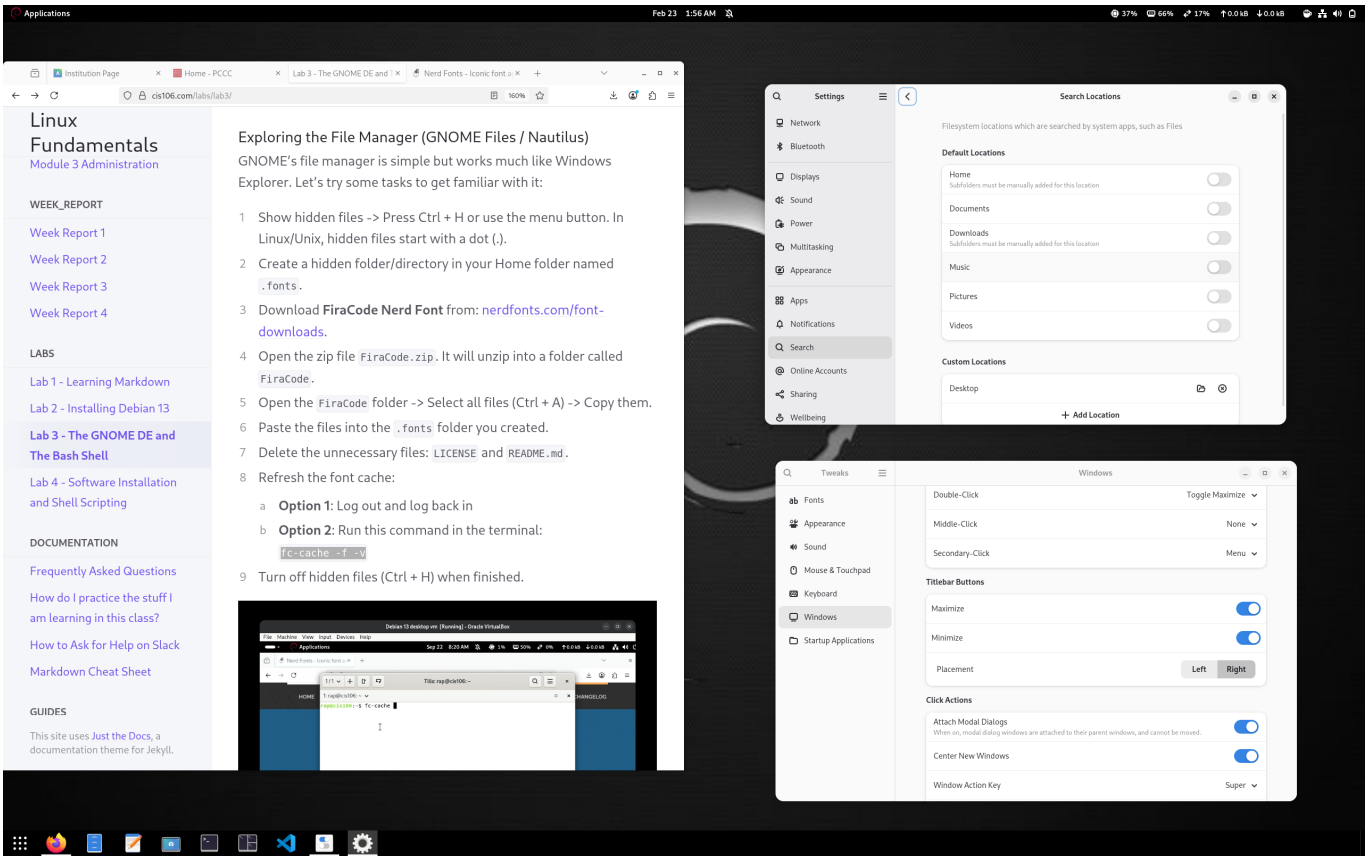
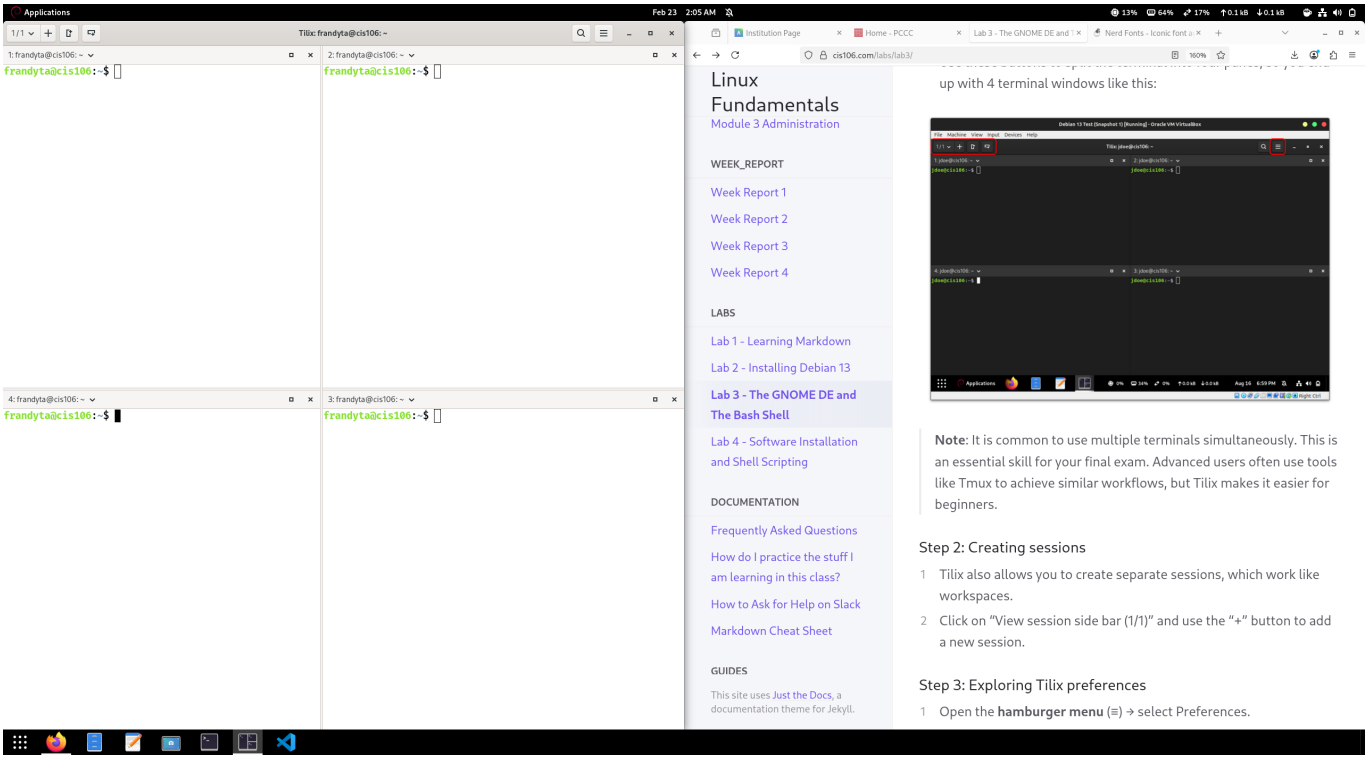
Lab 3 Submission

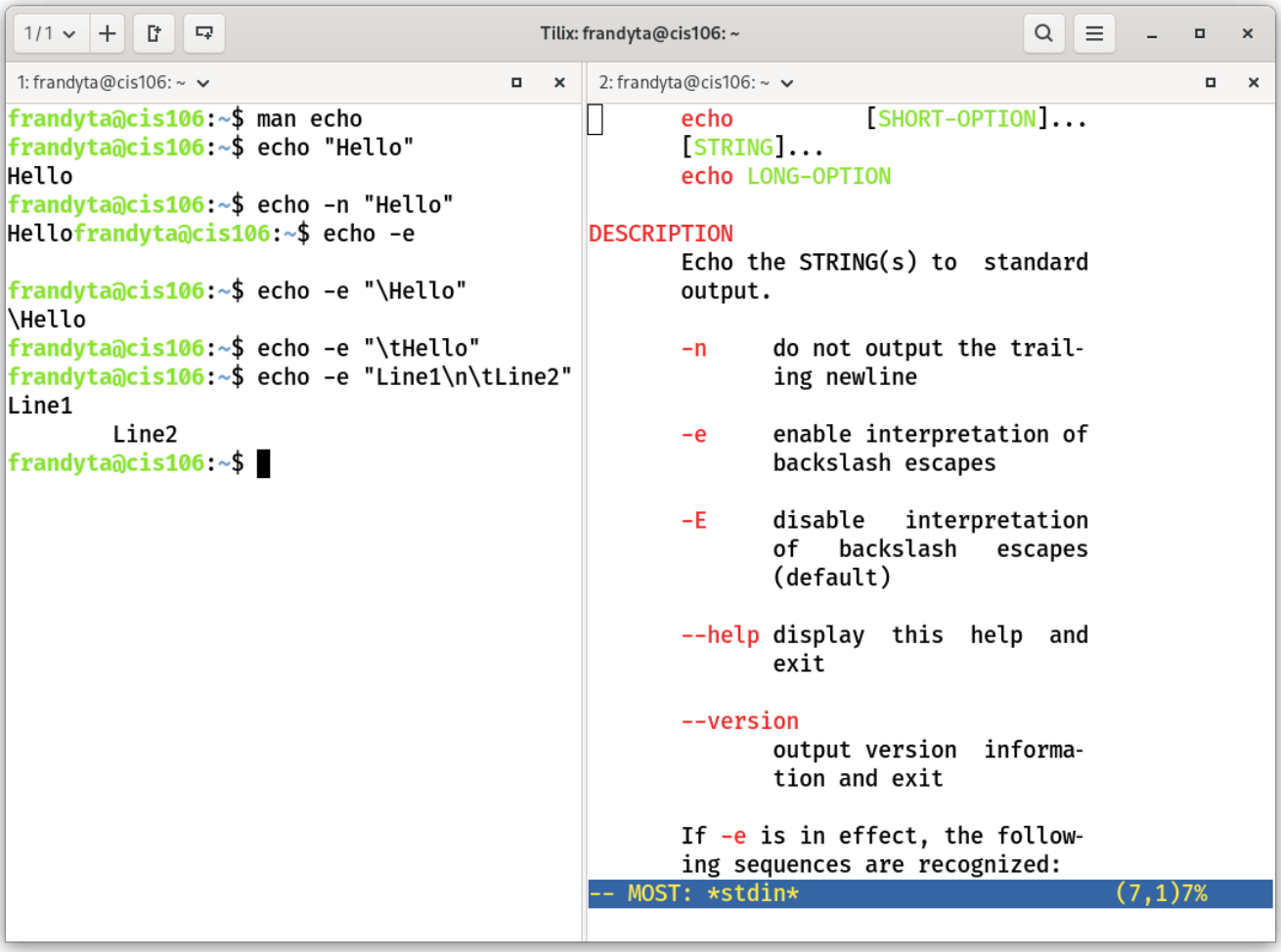
Question 1



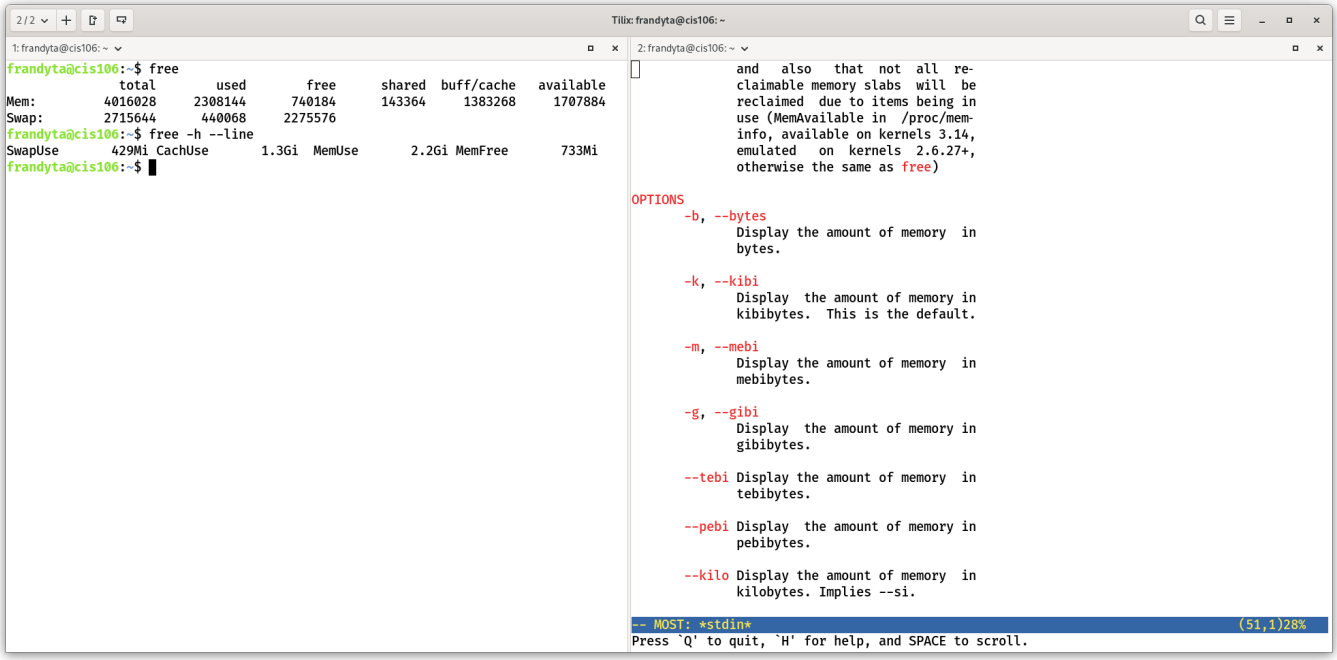
Question 2

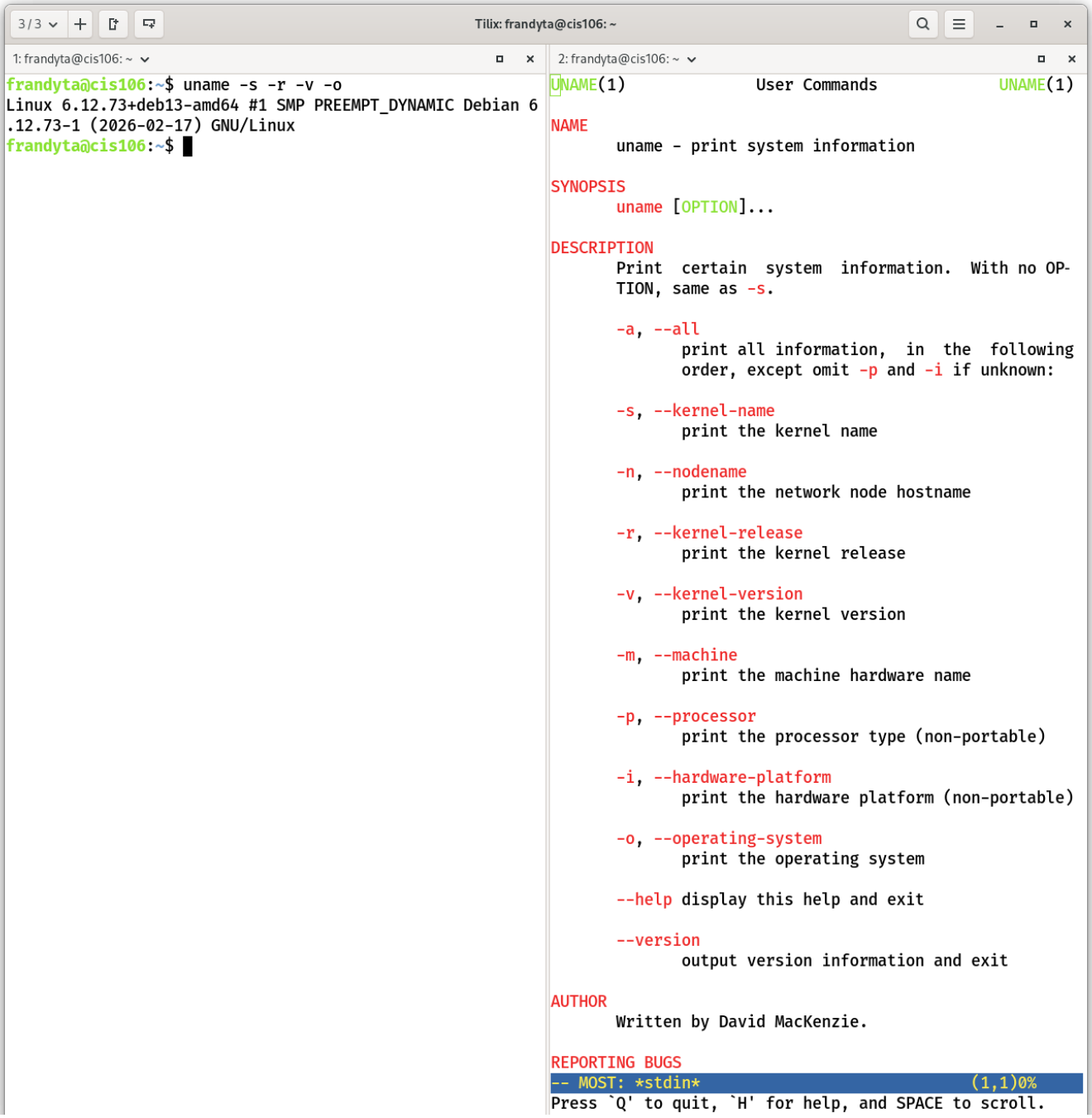


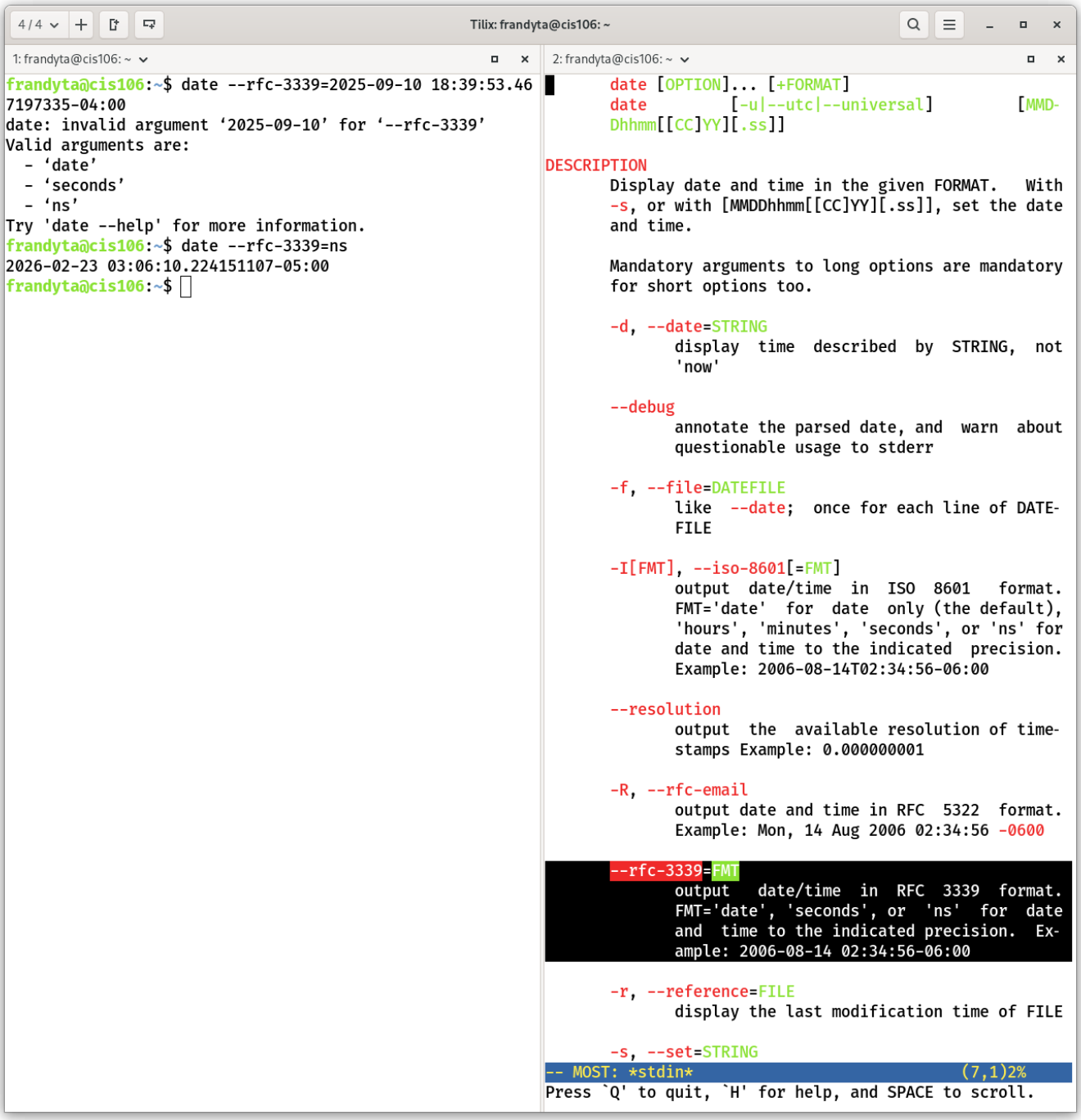
Question 3



Challenge Question


Tilix: frandyta@cis106: ~
frandyta@cis106:~$ free
total used free shared buff/cache available
Mem: 4016028 2308144 740184 143364 1383268 1707884
Swap: 2715644 440068 2275576
frandyta@cis106:~$ free -h --line
SwapUse 429Mi CachUse 1.3Gi MemUse 2.2Gi MemFree 733Mi
frandyta@cis106:~$
and also that not all re-
claimable memory slabs will be
reclaimed due to items being in
use (MemAvailable in /proc/mem-
info, available on kernels 3.14,
emulated on kernels 2.6.27+,
otherwise the same as free)
OPTIONS
-b, --bytes
Display the amount of memory in
bytes.
-k, --kibi
Display the amount of memory in
kibibytes. This is the default.
-m, --mebi
Display the amount of memory in
mebibytes.
-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. Implies --si.
-- MOST: *stdin* (51,1)28%
Press `Q' to quit, `H' for help, and SPACE to scroll.


Tilix: frandyta@cis106: ~
frandyta@cis106:~$ uname -s -r -v -o
Linux 6.12.73+deb13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6
.12.73-1 (2026-02-17) GNU/Linux
frandyta@cis106:~$
UNAME(1) User Commands UNAME(1)
NAME
uname - print system information
SYNOPSIS
uname [OPTION]...
DESCRIPTION
Print certain system information. With no OP-
TION, 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)
-i, --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
Written by David MacKenzie.
REPORTING BUGS
-- MOST: *stdin* (1,1)0%
Press `Q' to quit, `H' for help, and SPACE to scroll.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Tilix: frandyta@cis106: ~
1: frandyta@cis106: ~
2: frandyta@cis106: ~
frandyta@cis106:~$ date --rfc-3339=2025-09-10 18:39:53.467197335-04:00
date: invalid argument ‘2025-09-10’ for ‘--rfc-3339’
Valid arguments are:
- ‘date’
- ‘seconds’
- ‘ns’
Try 'date --help' for more information.
frandyta@cis106:~$ date --rfc-3339=ns
2026-02-23 03:06:10.224151107-05:00
frandyta@cis106:~$
date [OPTION]... [+FORMAT]
date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]
DESCRIPTION
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' for date and time to the indicated precision. Example: 2006-08-14T02:34:56-06:00
--resolution
output the available resolution of timestamps Example: 0.000000001
-R, --rfc-email
output date and time in RFC 5322 format. Example: Mon, 14 Aug 2006 02:34:56 -0600
--rfc-3339=FMT
output date/time in RFC 3339 format. FMT='date', 'seconds', or 'ns' for date and time to the indicated precision. Example: 2006-08-14 02:34:56-06:00
-r, --reference=FILE
display the last modification time of FILE
-s, --set=STRING
-- MOST: *stdin* (7,1)2%
Press `Q' to quit, `H' for help, and SPACE to scroll.