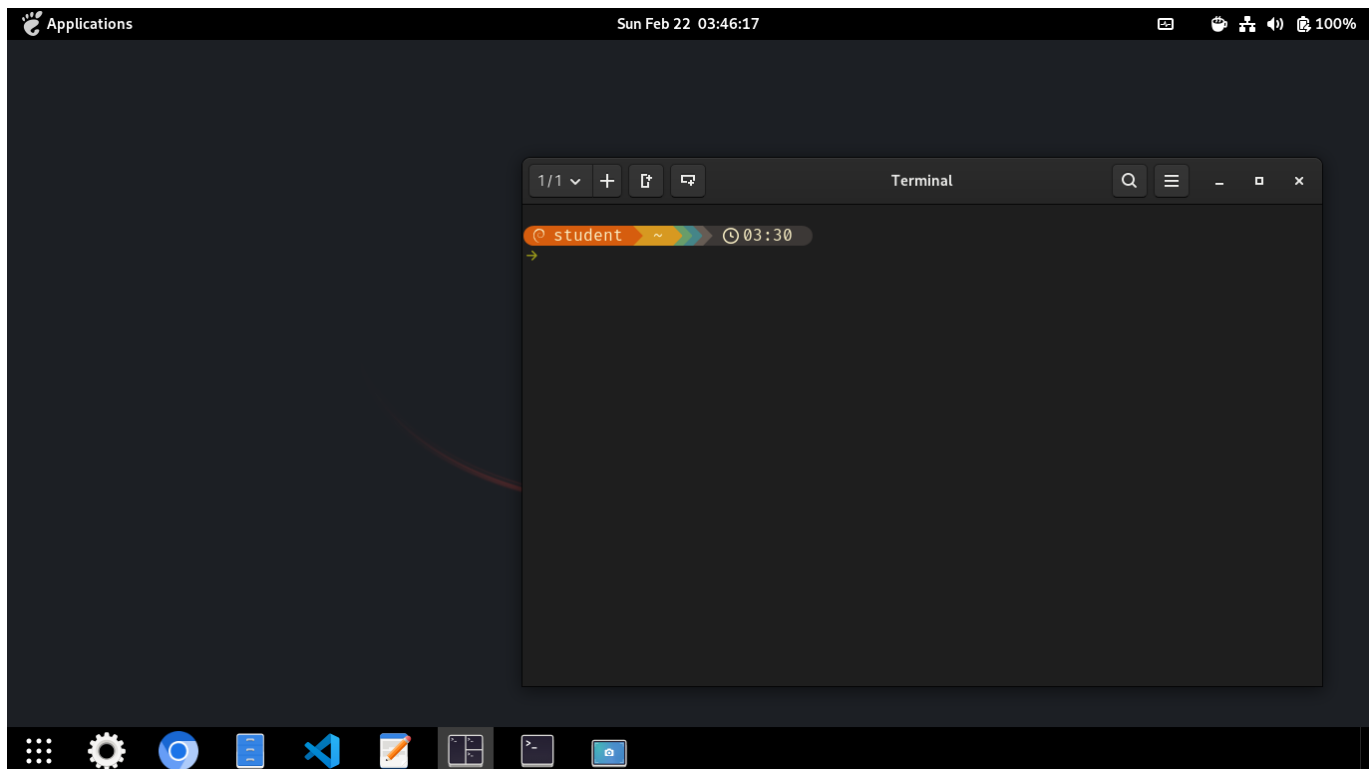
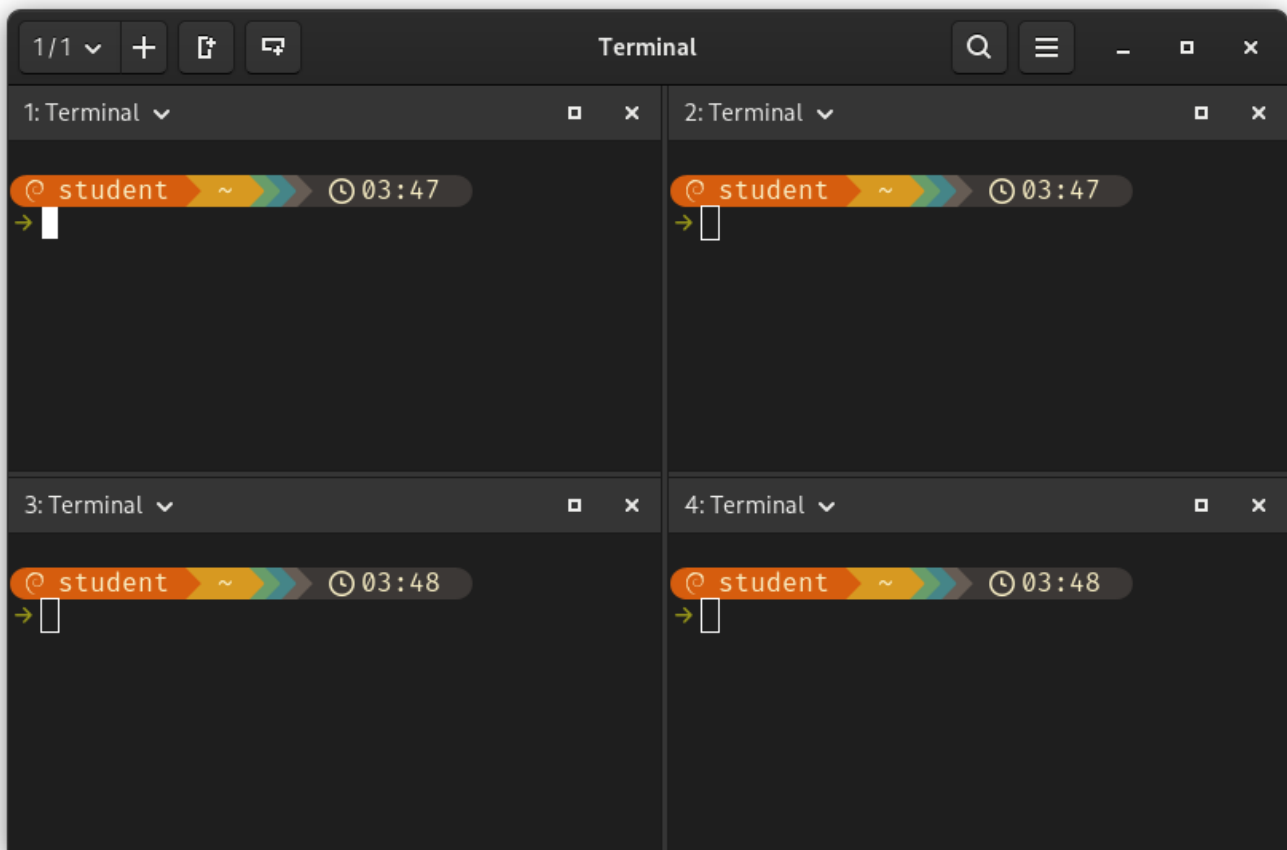


Lab 3 Submission

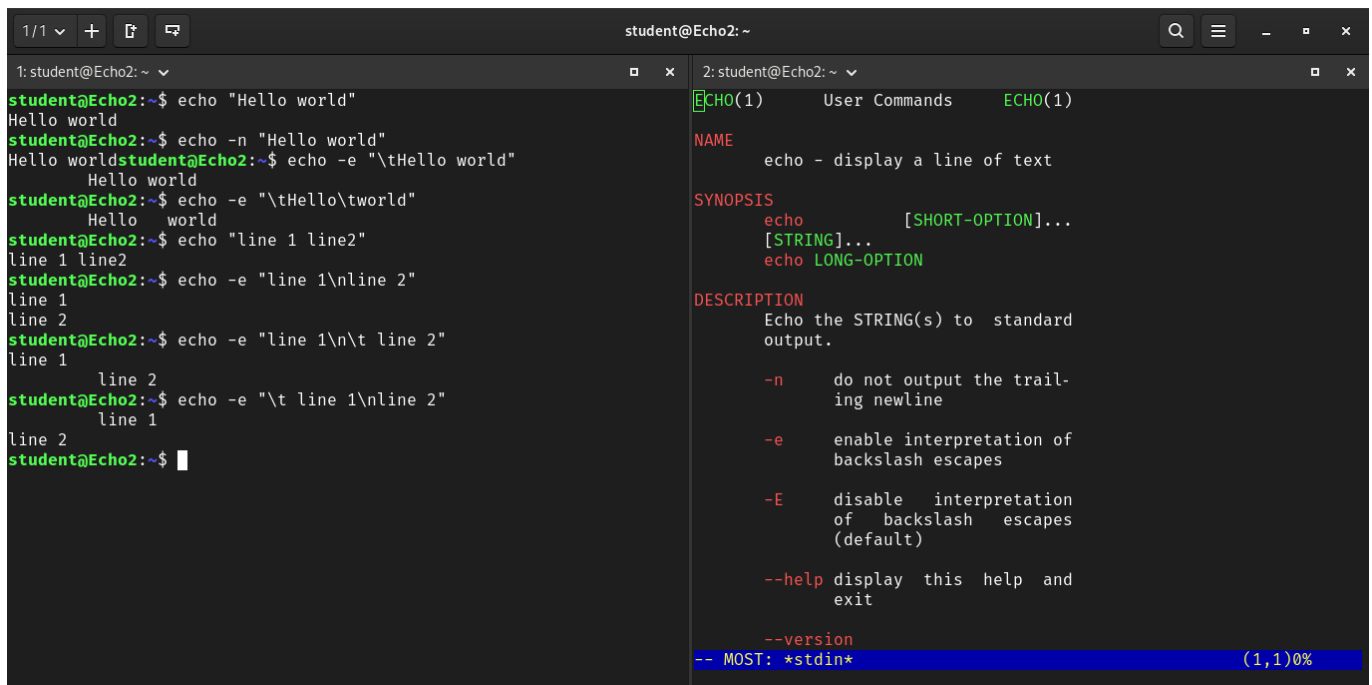
Question 1



Question 2



Question 3



Challenge Question

```

1/1 + [ ] student@Echo2: ~
1: student@Echo2: ~
--giga      show output in gigabytes
--tera      show output in terabytes
--peta      show output in petabytes
-k, --kibi  show output in kibibytes
-m, --mebi  show output in mebibytes
-g, --gibi  show output in gibibytes
--tebi      show output in tebibytes
--pebi      show output in pebibytes
-h, --human  show human-readable output
--si        use powers of 1000 not 1024
-l, --lohi   show detailed low and high memory statistics
-L, --line   show output on a single line
-t, --total  show total for RAM + swap
-v, --committed show committed memory and commit limit
-s N, --seconds N repeat printing every N seconds
-c N, --count N repeat printing N times, then exit
-w, --wide   wide output

--help      display this help and exit
-V, --version output version information and exit

For more details see free(1).
student@Echo2:~$ free -h --total
              total      used              free      shared  buff/cache
available
Mem:          1.9Gi      1.3Gi          189Mi          62Mi          694Mi
             644Mi
Swap:          1.3Gi      181Mi          1.1Gi
Total:         3.3Gi      1.5Gi          1.3Gi
student@Echo2:~$

2: student@Echo2: ~
-L, --line
    Show output on a single
    line, often used with
    the -s option to show
    memory statistics re-
    peatedly.

-s, --seconds delay
    Continuously display the
    result delay seconds
    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) instead
    of kibi, mebi, gibi
    (power of 1024).

-t, --total
    Display a line showing
    the column totals.

-- MOST: *stdin* (158,2)71%
Press 'Q' to quit, 'H' for help, and SPACE to scroll.

```

```

1/1 + [ ] student@Echo2: ~
1: student@Echo2: ~
student@Echo2:~$ uname -a
Linux Echo2 6.12.73+deb13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.12.7
3-1 (2026-02-17) x86_64 GNU/Linux
student@Echo2:~$ uname -s
Linux
student@Echo2:~$ uname -r
6.12.73+deb13-amd64
student@Echo2:~$ uname -v
#1 SMP PREEMPT_DYNAMIC Debian 6.12.73-1 (2026-02-17)
student@Echo2:~$ uname -o
GNU/Linux
student@Echo2:~$ uname -s -r -v -o
Linux 6.12.73+deb13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.12.73-1 (2
026-02-17) GNU/Linux
student@Echo2:~$

2: student@Echo2: ~
-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.

-- MOST: *stdin* (20,1)24%
Press 'Q' to quit, 'H' for help, and SPACE to scroll.

```

```
1/1 + [ ] student@Echo2: ~
1: student@Echo2: ~
student@Echo2:~$ date --rfc-3339
date: option '--rfc-3339' requires an argument
Try 'date --help' for more information.
student@Echo2:~$ 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.
student@Echo2:~$ date --rfc-3339=FMT
date: invalid argument 'FMT' for '--rfc-3339'
Valid arguments are:
- 'date'
- 'seconds'
- 'ns'
Try 'date --help' for more information.
student@Echo2:~$ date --rfc-3339=date
2026-02-22
student@Echo2:~$ date --rfc-3339=ns
2026-02-22 04:43:44.962878219-05:00
student@Echo2:~$

2: student@Echo2: ~
--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
    set time described by STRING

-u, --utc, --universal
    print or set Coordinated Universal Time (UTC)

--help display this help and exit

--version
    output version information and exit

-- MOST: *stdin* (32,1)17%
Press `Q` to quit, `H` for help, and SPACE to scroll.
```