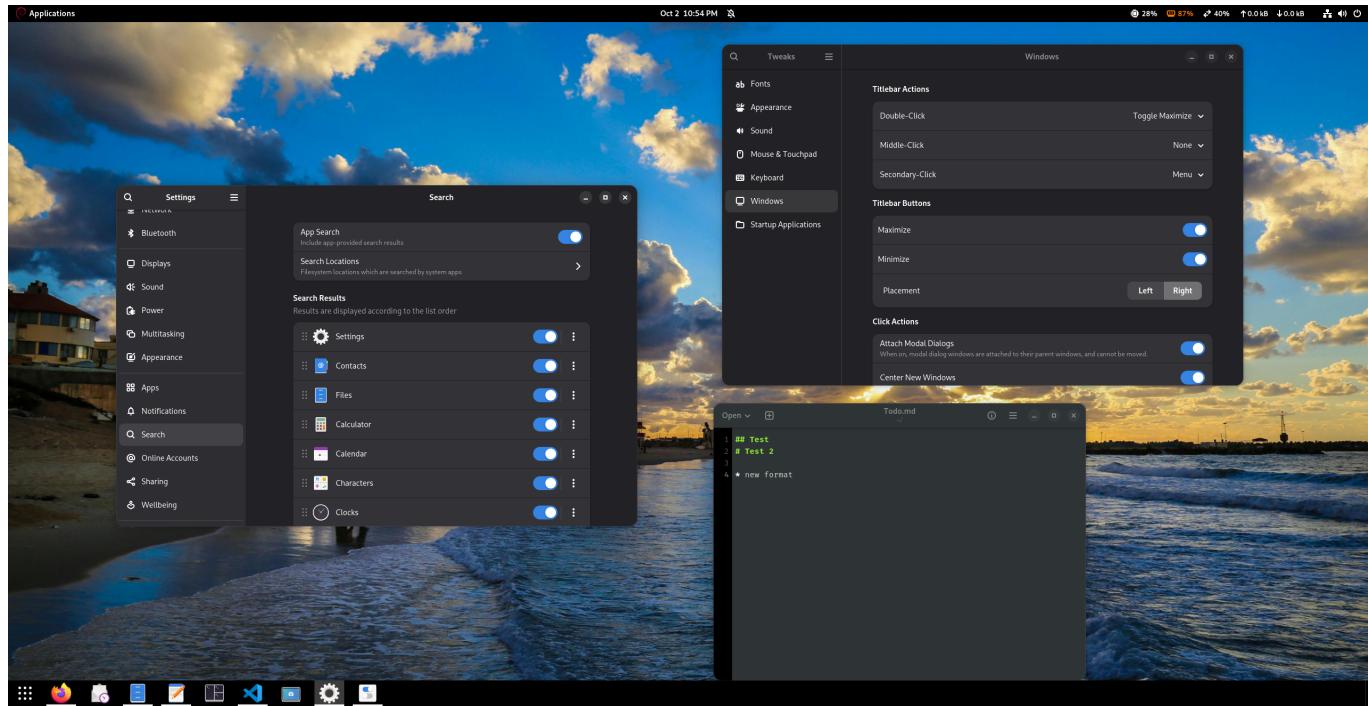
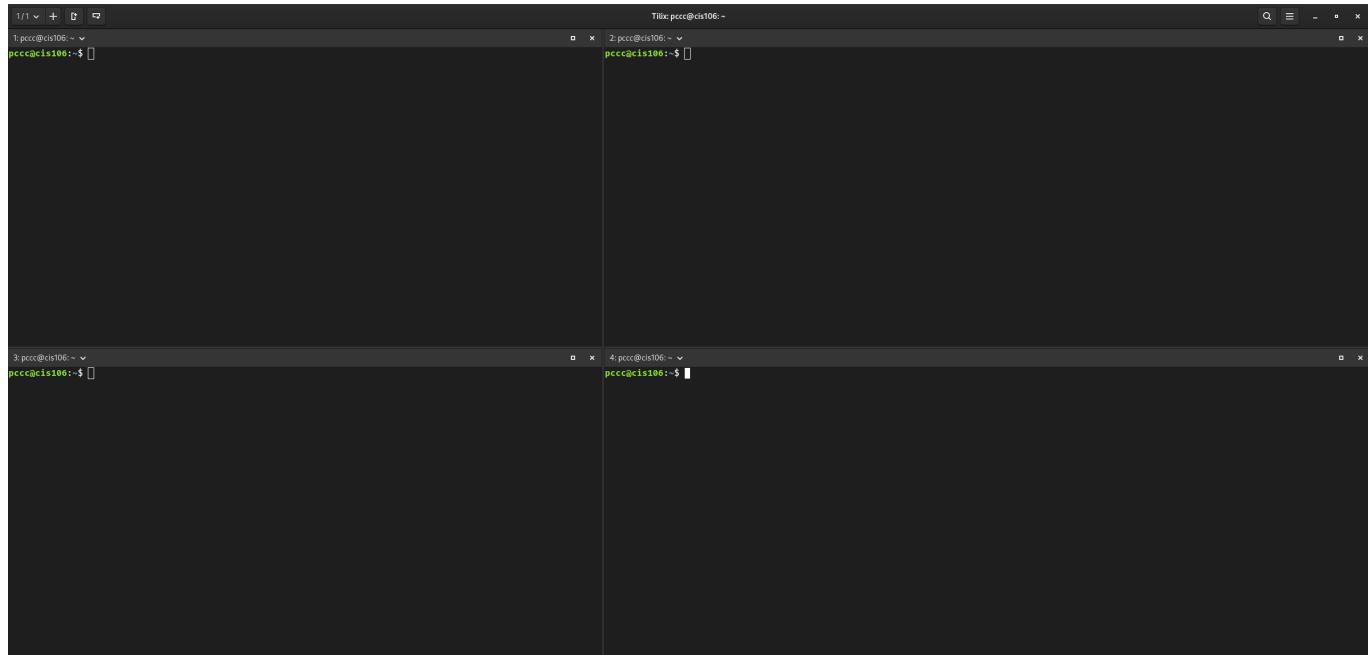


Lab 3 Submission

Question 1



Question 2



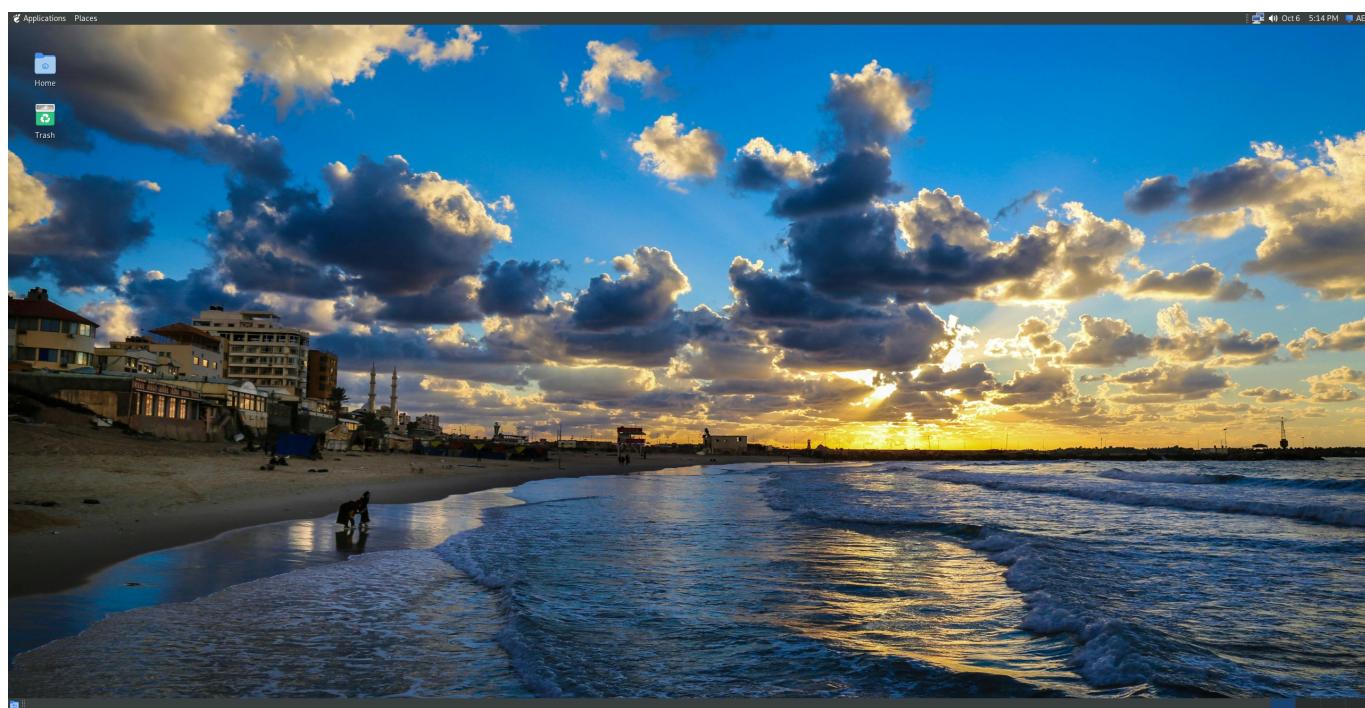
Question 3

```

Tilt: pccc@cis106: ~          Tilt: pccc@cis106: ~
1/1 + 0                         2: pccc@cis106: ~
ECHO(1)                         User Commands                      ECHO(1)
NAME    echo - display a line of text
SYNOPSIS echo [SHORT_OPTION]... [STRING]...
      echo LONG_OPTION
DESCRIPTION Echo the STRING(s) to standard output.
      -n      do not output the trailing newline
      -e      enable interpretation of backslash escapes
      -E      disable interpretation of backslash escapes (default)
      --help  display this help and exit
      --version
              output version information and exit
If -e is in effect, the following sequences are recognized:
\\   backslash
\`   alert (BEL)
\b   backspace
\c   produce no further output
\e   escape
\f   form feed
\n   new line
\r   carriage return
\t   horizontal tab
\v   vertical tab
\NNN  byte with octal value NNN (1 to 3 digits)
\xHH  byte with hexadecimal value HH (1 to 2 digits)
Your shell may have its own version of echo, which usually supersedes the version described here.
Please refer to your shell's documentation for details about the options it supports.
Consider using the printf(1) command instead, as it avoids problems when outputting option-like strings.
AUTHOR
Manual page echo(1) line 1 (press h for help or q to quit)

```

Challenge Question



Challenge Question Script Source code:

```

Oct 6 5:33 PM ~
Title:pccc@cis106:~ 2:pccc@cis106:~ pccgcis106:~$ free -h
          total        used        free      shared  buff/cache   available
Mem:   3.8G       2.6G       800M    444M       1.1G       1.2G
Swap:  2.0G       0M       2.0G

pccgcis106:~$ [ ]
```

Manual page ls(1) line 43/225 40% (press h for help or q to quit)

```

Tilt:pccc@cis106:~ 2:pccc@cis106:~ pccgcis106:~$ uname --version
uname (GNU coreutils) 0.7
Packaged by Debian (9.7-3)
Copyright (C) 2025 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.

Written by David MacKenzie.
pccgcis106:~$ [ ]
```

Manual page ls(1) line 141/225 88% (press h for help or q to quit)

```
Oct 6 16:35 PM ~
Title:pccc@cis106:~ 2:pccc@cis106:~ 23% 77% 23% 0.0 kB 0.0 kB
Applications 1/1 + 2 23% 77% 23% 0.0 kB 0.0 kB
Tilde:pccc@cis106:~ All options that specify the date to display are mutually exclusive.
I.e.: --date, --file, --reference, --resolution.
FORMAT controls the output. Interpreted sequences are:
%a locale's abbreviated weekday name (e.g., Sun)
%A locale's full weekday name (e.g., Sunday)
%b locale's abbreviated month name (e.g., Jan)
%B locale's full month name (e.g., January)
%c locale's date and time (e.g., Thu Mar 3 23:05:25 2005)
%F common tilde notation to omit last two digits (e.g., 20)
%d day of month (e.g., 01)
%D date (ambiguous); same as %m/%d/%y
%e day of month, space padded; same as %_d
%j day of year (001..366)
%g last two digits of year of ISO week number (ambiguous; 00-99); see %G
%G year of ISO week number; normally useful only with %V
%h same as %b
%H hour (00..23)
%I hour (01..12)
%j day of year (001..366)
%k hour, space padded ( 0..23); same as %_H
%l hour, space padded ( 1..12); same as %_I
%m month (01..12)
%M minute (00..59)
%N newline
%R microseconds (00000000..99999999)
%r locale's equivalent of either AM or PM; blank if not known
%sp like %p, but lower case
%q quarter of year (1..4)
%t locale's 12-hour clock time (e.g., 11:11:04 PM)
%w 24-hour clock (0..23); 0 is Sunday
%W week number of year, with Sunday as first day of week (01..53)
%y last two digits of year (ambiguous; 00-99)
%Y year
%z -hhmm numeric time zone (e.g., -0400)
%Z :hhmm numeric time zone (e.g., -0400)
%::z :hhmm numeric time zone (e.g., -04:00:00)
%::zz numeric time zone with : to necessary precision (e.g., -04, +05:30)
%::zz 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
(underline) use underscores instead of spaces
^ (circumflex) use underscores with underscores
 2:pccc@cis106:~ pccc@cis106:~ 23% 77% 23% 0.0 kB 0.0 kB
Title:pccc@cis106:~ pccc@cis106:~ 23% 77% 23% 0.0 kB 0.0 kB
pccc@cis106:~$ date -u +%Y-%m-%d-%T-%Z
2025-10-06-22:34:59-UTC
pccc@cis106:~
```