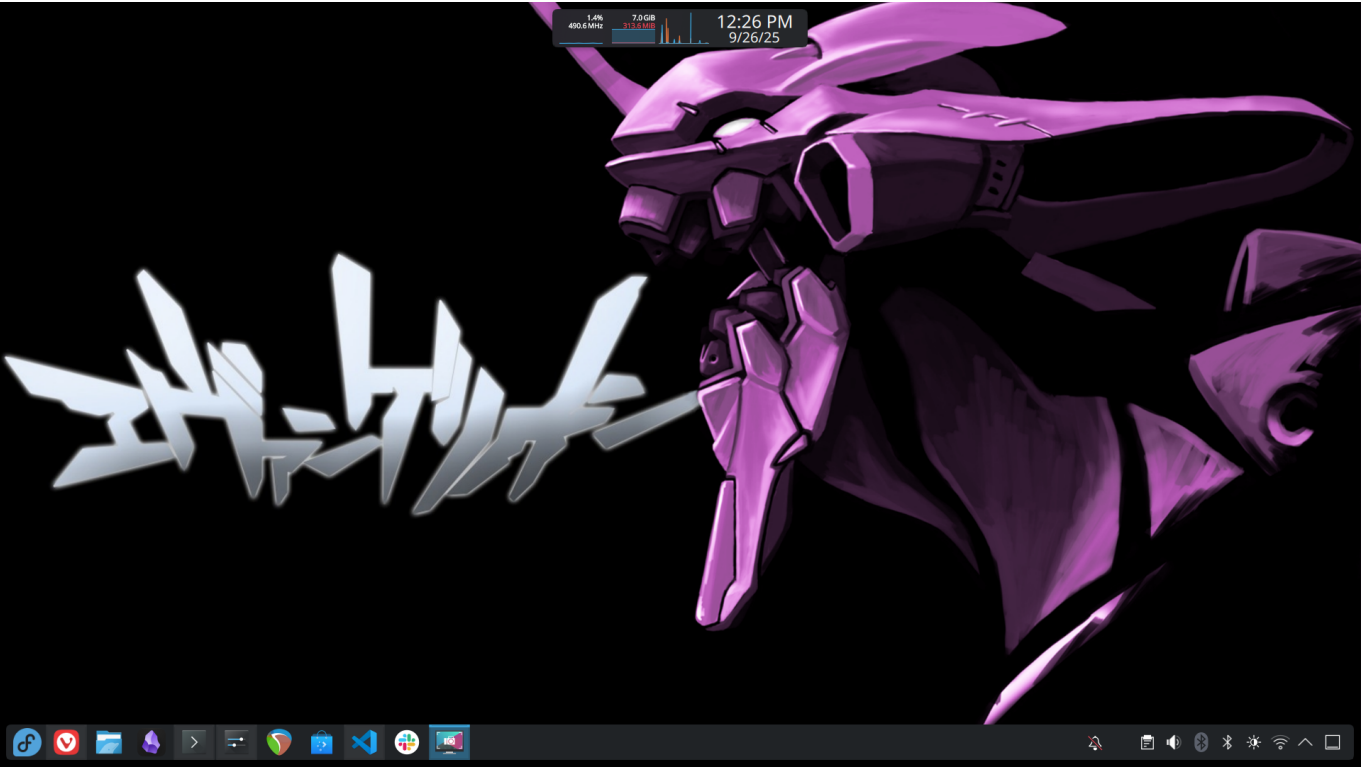


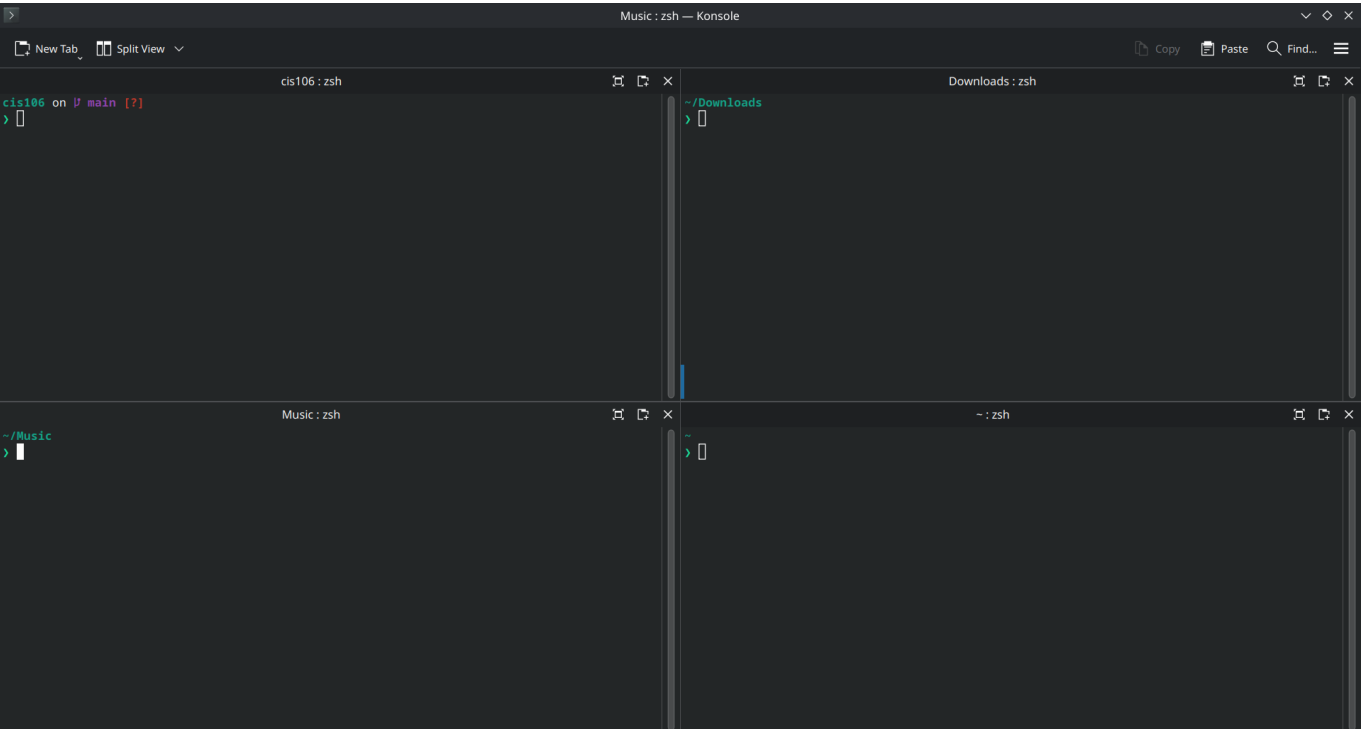
Lab 3 Submission

[!NOTE] Question 1-3 were taken in KDE.

Question 1



Question 2



Question 3

The screenshot shows a terminal window with two panes. The left pane is a zsh shell with the following commands and output:

```
> echo "this is the first line"
this is the first line
> echo "\t\ttabbing is fun"
\t\ttabbing is fun
> echo "firstline \nsecondline"
firstline
secondline
> echo "firstline \n\tsecondline but tabbed"
firstline
\tsecondline but tabbed
> echo "\tfirstline tabbed \nsecondline normal"
\tfirstline tabbed
secondline normal
> 
```

The right pane shows the manual page for the 'echo' command, titled 'ECHO(1)'. The content is as follows:

```
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
    \a    alert (BEL)
    \b    backspace
    \c    produce no further output
    \e    escape
    \f    form feed
    \n    new line

Manual page echo(1) line 1/76 41% (press h for help or q to quit)
```

Challenge Question

```

~:zsh — Konsole
New Tab Split View
~:zsh
> free -h -L
SwapUse      995Mi CacheUse      8.1Gi MemUse      7.5Gi MemFree      1.8Gi
>

~:man
--peta Display the amount of memory in petabytes. Implies --si.
-h, --human
    Show all output fields automatically scaled to shortest three digit unit and display the units of print out. Following units are used.
        B = bytes
        Ki = kibibyte
        Mi = mebibyte
        Gi = gibibyte
        Ti = tebibyte
        Pi = pebibyte
    If unit is missing, and you have exbibyte of RAM or swap, the number is in tebibytes and columns might not be aligned with header.
-w, --wide
    Switch to the wide mode. The wide mode produces lines longer than 80 characters. In this mode buffers and cache are reported in two separate columns.
-c, --count count
    Display the result count times. Requires the -s option.
-l, --lohi
    Show detailed low and high memory statistics.
-L, --line
    Show output on a single line, often used with the -s option to show memory statistics repeatedly.
-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).
Manual page free(1) line 65 (press h for help or q to quit)

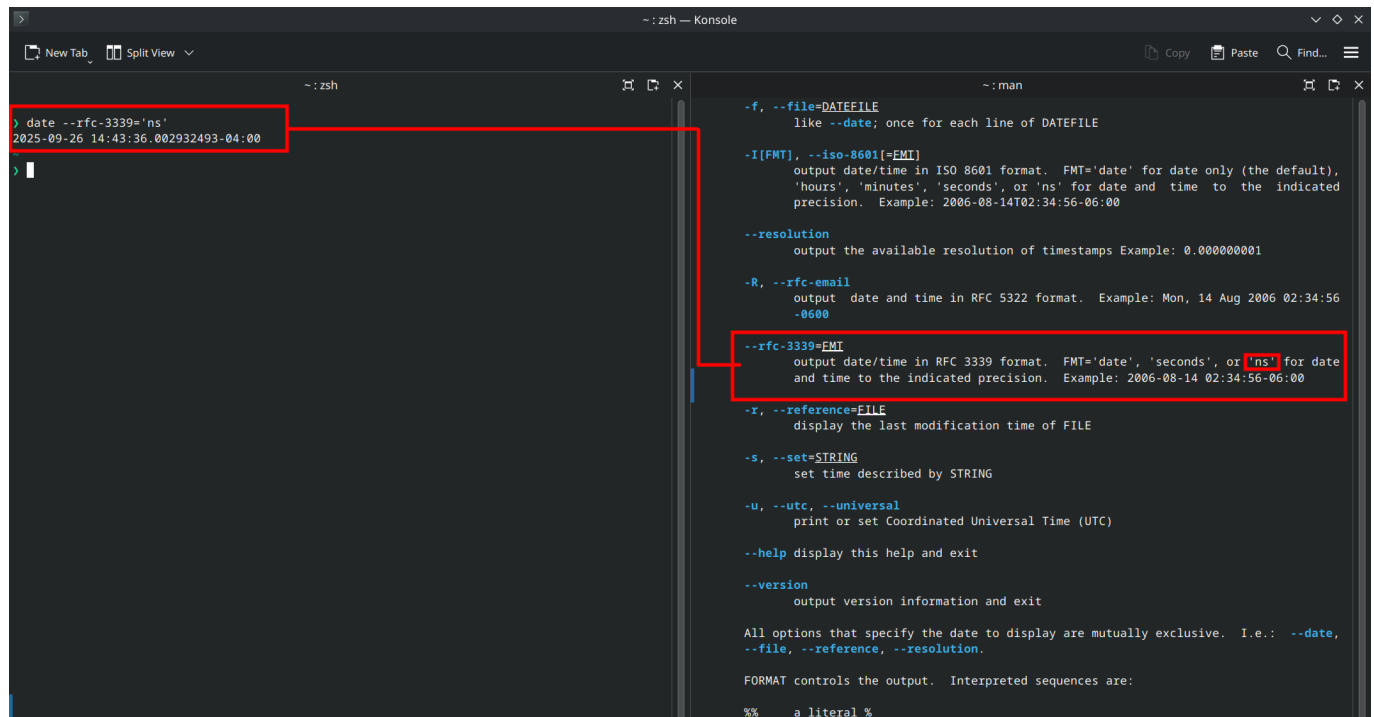
```

```

~:zsh — Konsole
New Tab Split View
~:zsh
> uname -sivo
Linux 6.16.7-200.fc42.x86_64 #1 SMP PREEMPT_DYNAMIC Thu Sep 11 17:46:54 UTC 2025 GNU/Linux
>

~:man
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
    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
Manual page uname(1) line 7 (press h for help or q to quit)

```



The screenshot shows a terminal window with two panes. The left pane shows the command `date --rfc-3339='ns'` being executed, resulting in the output `2025-09-26 14:43:36.002932493-04:00`. The right pane shows the man page for the `date` command. A red box highlights the `--rfc-3339=FMT` option in the man page, which specifies the output format for RFC 3339, with `'ns'` being the format used in the command. Another red box highlights the output of the command in the left pane.

```
> date --rfc-3339='ns'
2025-09-26 14:43:36.002932493-04:00
>
```

```
-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
    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

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 literal %
```