

# Week Report 3

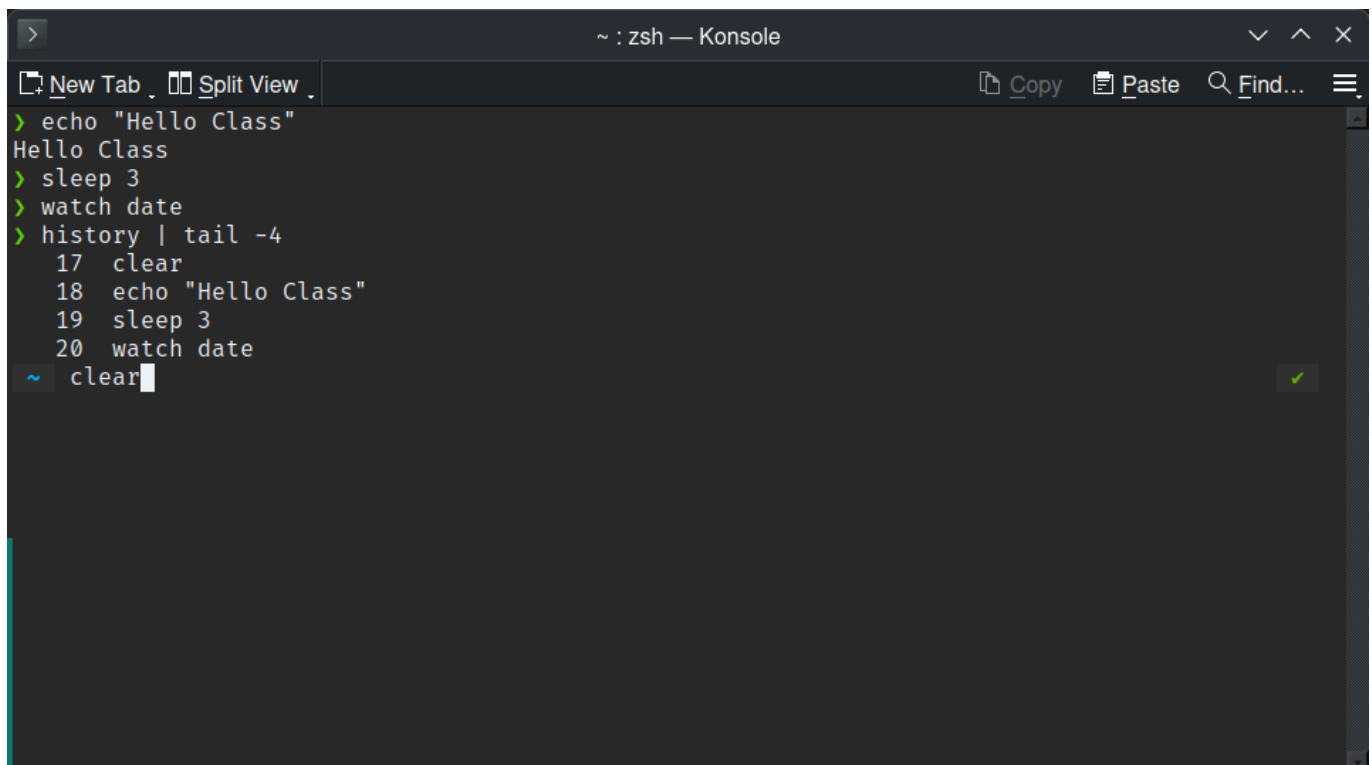
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## Completed work for week 3:

- [Lab 3](#)
- [Notes 3](#)

## Practice Screenshots

### Practice 3



The screenshot shows a terminal window titled '~ : zsh — Konsole'. The terminal has a dark background with light green text. The command history is visible, showing the following commands and their outputs:

```
> echo "Hello Class"
Hello Class
> sleep 3
> watch date
> history | tail -4
 17  clear
 18  echo "Hello Class"
 19  sleep 3
 20  watch date
~ clear
```

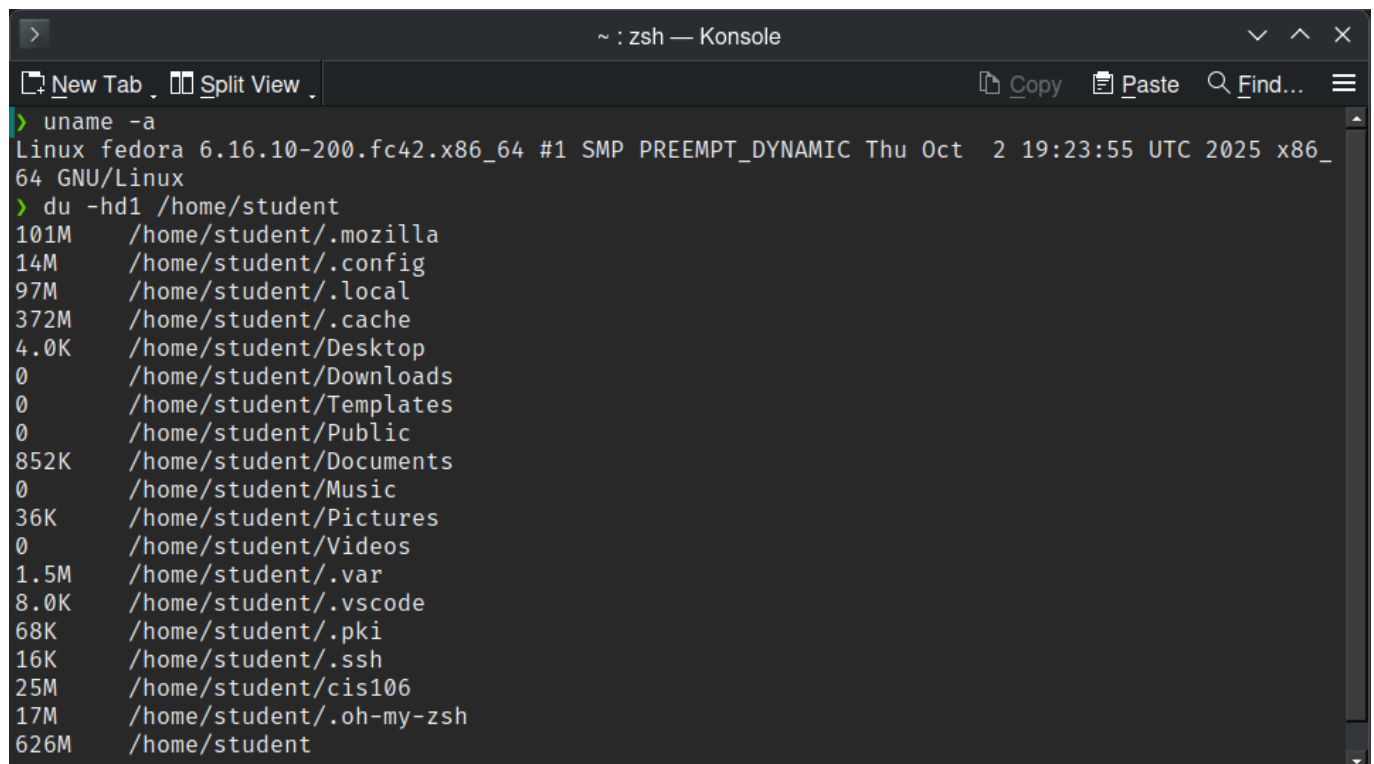
The terminal interface includes a top bar with 'New Tab', 'Split View', 'Copy', 'Paste', 'Find...', and a menu icon. A green checkmark icon is visible in the bottom right corner of the terminal area.

### Practice 4

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> whoami
student
> uptime
13:42:45 up 22:04, 2 users, load average: 0.21, 0.31, 0.38
> hostname
fedora
> free -h
Mem: total used free shared buff/cache available
      15Gi 4.7Gi 4.1Gi 660Mi 7.4Gi 10Gi
Swap: 8.0Gi 10Mi 8.0Gi
> df -h /
Filesystem Size Used Avail Use% Mounted on
/dev/nvme0n1p3 476G 93G 382G 20% /
~
```

```
> ~ : top — Konsole
New Tab Split View Copy Paste Find...
top - 13:43:46 up 22:05, 2 users, load average: 0.14, 0.27, 0.36
Tasks: 444 total, 1 running, 443 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.5 us, 1.0 sy, 0.0 ni, 97.9 id, 0.0 wa, 0.5 hi, 0.0 si, 0.0 st
MiB Mem : 15597.9 total, 4176.8 free, 4875.6 used, 7547.1 buff/cache
MiB Swap: 8192.0 total, 8181.0 free, 11.0 used, 10722.3 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU  %MEM    TIME+  COMMAND
 55480 student   20   0  235372    5636   3460 R   8.3   0.0   0:00.02 top
    1 root      20   0   42704   23412  11508 S   0.0   0.1   0:13.45 systemd
    2 root      20   0         0         0        0 S   0.0   0.0   0:00.08 kthreadd
    3 root      20   0         0         0        0 S   0.0   0.0   0:00.00 pool_workqueue_relea+
    4 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/R-rcu_gp
    5 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/R-sync_wq
    6 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/R-kvfree_rcu+
    7 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/R-slub_flush+
    8 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/R-netns
   10 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/0:0H-events_+
   13 root      0 -20         0         0        0 I   0.0   0.0   0:00.00 kworker/R-mm_percpu_+
   15 root      20   0         0         0        0 S   0.0   0.0   0:00.19 ksoftirqd/0
   16 root      20   0         0         0        0 I   0.0   0.0   0:08.59 rcu_preempt
   17 root      20   0         0         0        0 S   0.0   0.0   0:00.00 rcu_exp_par_gp_kthre+
   18 root      20   0         0         0        0 S   0.0   0.0   0:00.04 rcu_exp_gp_kthread_w+
   19 root      rt    0         0         0        0 S   0.0   0.0   0:00.76 migration/0
```



A terminal window titled '~ : zsh — Konsole' with a dark background. The window has a menu bar with 'New Tab', 'Split View', 'Copy', 'Paste', 'Find...', and a hamburger menu icon. The terminal output shows the results of two commands: 'uname -a' and 'du -hd1 /home/student'. The 'uname -a' command displays system information including the kernel version (6.16.10-200.fc42.x86\_64), architecture (x86\_64), and date/time (Thu Oct 2 19:23:55 UTC 2025). The 'du -hd1 /home/student' command lists the disk usage for various directories in the /home/student path, with the largest being /home/student/.mozilla at 101M.

```
>
~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> uname -a
Linux fedora 6.16.10-200.fc42.x86_64 #1 SMP PREEMPT_DYNAMIC Thu Oct 2 19:23:55 UTC 2025 x86_
64 GNU/Linux
> du -hd1 /home/student
101M    /home/student/.mozilla
14M     /home/student/.config
97M     /home/student/.local
372M    /home/student/.cache
4.0K    /home/student/Desktop
0       /home/student/Downloads
0       /home/student/Templates
0       /home/student/Public
852K    /home/student/Documents
0       /home/student/Music
36K     /home/student/Pictures
0       /home/student/Videos
1.5M    /home/student/.var
8.0K    /home/student/.vscode
68K     /home/student/.pki
16K     /home/student/.ssh
25M     /home/student/cis106
17M     /home/student/.oh-my-zsh
626M    /home/student
```

## Practice 5

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> lspci | grep "Vendor"
Vendor ID: GenuineIntel
> lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 003 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 003 Device 002: ID 1c7a:0587 LighTuning Technology Inc. ETU905A88-E
Bus 003 Device 003: ID 3277:0021 Sonix Technology Co., Ltd. USB2.0 FHD UVC WebCam
Bus 003 Device 004: ID 8087:0033 Intel Corp. AX211 Bluetooth
Bus 004 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub
Bus 004 Device 002: ID 0bda:0329 Realtek Semiconductor Corp. USB3.0 Card Reader
> lspci | grep "Network"
0000:00:14.3 Network controller: Intel Corporation Raptor Lake PCH CNVi WiFi (rev 01)
```

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> inxi
CPU: 10-core (6-mt/4-st) 13th Gen Intel Core i7-13620H (-MST AMCP-)
speed/min/max: 400/400/4700:4900:3600 MHz
Kernel: 6.16.10-200.fc42.x86_64 x86_64 Up: 22h 11m Mem: 4.72/15.23 GiB (31.0%)
Storage: 476.94 GiB (19.5% used) Procs: 453 Shell: Zsh inxi: 3.3.39
> lsmod | head -20
Module          Size  Used by
uinput          32768  0
nvidia_uvm      4206592  0
snd_usb_audio   679936  0
snd_usbmidi_lib 57344  1 snd_usb_audio
snd_ump         49152  1 snd_usb_audio
snd_rawmidi     53248  2 snd_usbmidi_lib,snd_ump
rfcomm          110592  18
snd_seq_dummy   12288  0
snd_hrtimer     12288  1
nf_conntrack_netbios_ns 12288  1
nf_conntrack_broadcast 12288  1 nf_conntrack_netbios_ns
nft_fib_inet    12288  1
nft_fib_ipv4    12288  1 nft_fib_inet
nft_fib_ipv6    12288  1 nft_fib_inet
nft_fib         12288  3 nft_fib_ipv6,nft_fib_ipv4,nft_fib_inet
nft_reject_inet 12288  10
```

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> sensors | head -20
coretemp-isa-0000
Adapter: ISA adapter
Package id 0:  +46.0°C (high = +100.0°C, crit = +100.0°C)
Core 0:        +43.0°C (high = +100.0°C, crit = +100.0°C)
Core 4:        +42.0°C (high = +100.0°C, crit = +100.0°C)
Core 8:        +41.0°C (high = +100.0°C, crit = +100.0°C)
Core 12:       +42.0°C (high = +100.0°C, crit = +100.0°C)
Core 16:       +42.0°C (high = +100.0°C, crit = +100.0°C)
Core 20:       +42.0°C (high = +100.0°C, crit = +100.0°C)
Core 24:       +44.0°C (high = +100.0°C, crit = +100.0°C)
Core 25:       +44.0°C (high = +100.0°C, crit = +100.0°C)
Core 26:       +44.0°C (high = +100.0°C, crit = +100.0°C)
Core 27:       +43.0°C (high = +100.0°C, crit = +100.0°C)

ucsi_source_psy_USBC000:002-isa-0000
Adapter: ISA adapter
in0:          0.00 V (min = +0.00 V, max = +0.00 V)
curr1:        0.00 A (max = +0.10 A)

nvme-pci-e100
~
```

## Practice 6

```
> ~ : zsh — Konsole
```

New Tab Split View Copy Paste Find... ☰

```
> fortune  
Three hours a day will produce as much as a man ought to write.  
-- Trollope  
> figlet "John Doe"  
  
J o h n   D o e  
  
> cowsay "hi class"  
< hi class >  
  
      ^__^  
     (oo)\_____  
        (__)\       )\/\  
            ||----w |  
            ||     ||  
  
> cmatrix  
~ █
```

✓ < 4s

```
~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> sl

> echo "Jon P" | rev
P noJ
> toilet "Jon" --metal

  mmm
  #   mmm   m mm
  #   # " " # " #
  #   #   #   #   #
  "mmm" "#m#" #   #
```

## Practice 7

```

~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> date
Sun Oct 12 02:07:25 PM EDT 2025
> echo "hello world"
hello world
> uname -a
Linux fedora 6.16.10-200.fc42.x86_64 #1 SMP PREEMPT_DYNAMIC Thu Oct  2 19:23:55 UTC 2025 x86_
64 GNU/Linux
> history | tail -5
 103 y
 104 clear
 105 date
 106 echo "hello world"
 107 uname -a
> !106
> echo "hello world"
hello world
> !!
> echo "hello world"
hello world
> echo "hello"
hello
> !!world
> echo "hello"world
helloworld
~

```

## Practice 8

```

~ : zsh — Konsole
New Tab Split View Copy Paste Find...
~ : zsh
~ : man
uname -sno
Linux fedora unknown GNU/Linux
NAME
  uname - print system information
SYNOPSIS
  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 un-
    known:
  -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.
Manual page uname(1) line 1 (press h for help or q to quit)

```

```

~ : zsh — Konsole
New Tab Split View Copy Paste Find...
~ : zsh
~ : man
free --giga
total      used      free      shared  buff/cache   available
Mem:      16        6         2         1         8         9
Swap:      8         0         8
-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.
--mega
  Display the amount of memory in megabytes. Implies --si.
--giga
  Display the amount of memory in gigabytes. Implies --si.

```

## Practice 9

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> free --help | head -10
Usage:
  free [options]

Options:
  -b, --bytes          show output in bytes
  --kilo              show output in kilobytes
  --mega              show output in megabytes
  --giga              show output in gigabytes
  --tera              show output in terabytes
> man --help | head -10
Usage: man [OPTION...] [SECTION] PAGE...

  -C, --config-file=FILE    use this user configuration file
  -d, --debug                emit debugging messages
  -D, --default              reset all options to their default values
  --warnings[=WARNINGS]    enable warnings from groff

Main modes of operation:
  -f, --whatis               equivalent to whatis
  -k, --apropos              equivalent to apropos
~
```

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> date --help | head -10
Usage: date [OPTION]... [+FORMAT]
  or: date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]
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
> whatis ls
ls (1) - list directory contents
> whatis pwd
pwd (1) - print name of current/working directory
> whatis dnf
dnf (8) - DNF5 Package Management Utility
> whatis sudo
sudo (8) - execute a command as another user
~
```

## Practice 10



```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> tldr echo

Print given arguments.
See also: `printf`.
More information: <https://www.gnu.org/software/coreutils/manual/html\_node/echo-invocation.html>.

Print a text message. Note: Quotes are optional:

    echo "Hello World"

Print a message with environment variables:

    echo "My path is $PATH"

Print a message without the trailing newline:

    echo -n "Hello World"

Append a message to the file:

    echo "Hello World" >> file.txt
```

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> tldr date

Set or display the system date.
More information: <https://www.gnu.org/software/coreutils/manual/html\_node/date-invocation.html>.

Display the current date using the default locale's format:

    date +%c

Display the current date in UTC, using the ISO 8601 format:

    date [-u|--utc] +%Y-%m-%dT%H:%M:%SZ

Display the current date as a Unix timestamp (seconds since the Unix epoch):

    date +%s

Convert a date specified as a Unix timestamp to the default format:

    date [-d|--date] @1473305798

Convert a given date to the Unix timestamp format:
```

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
> cheat git | pygmentize
# To set your identity:
git config --global user.name <name>
git config --global user.email <email>

# To set your editor:
git config --global core.editor <editor>

# To enable color:
git config --global color.ui true

# To stage all changes for commit:
git add --all

# To stash changes locally, this will keep the changes in a separate changelist
# called stash and the working directory is cleaned. You can apply changes
# from the stash anytime
git stash

# To stash changes with a message:
git stash push -m <message>

# To list all the stashed changes:
```

```
> ~ : zsh — Konsole
New Tab Split View Copy Paste Find...
date +"%Y%m%d_%H%M%S"

# To convert a Unix timestamp to Date (Linux):
date -d @1440359821

# To convert a Unix timestamp to Date (OSX):
date -r 1440359821

# To show the current timezone:
date +%Z

# To show date in RFC format with TZ offset:
date -R

# To show date in UTC/GMT:
date -u

# To show date in CET:
TZ=CET date

# To show the time on the west coast of the US (use tzselect(1) to find TZ):
TZ='America/Los_Angeles' date
```