

Week Report 3

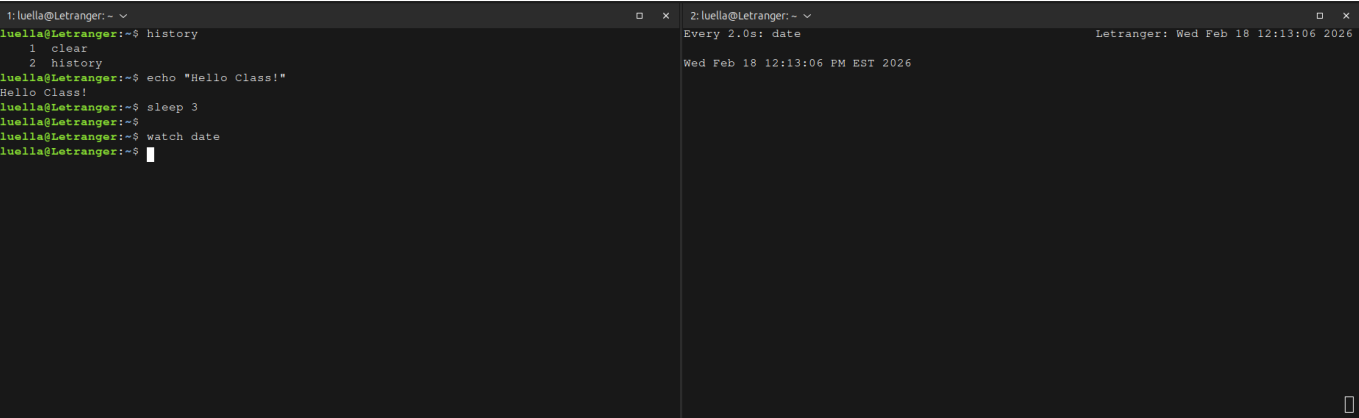
Completed work for week 3

[notes3.md](#)

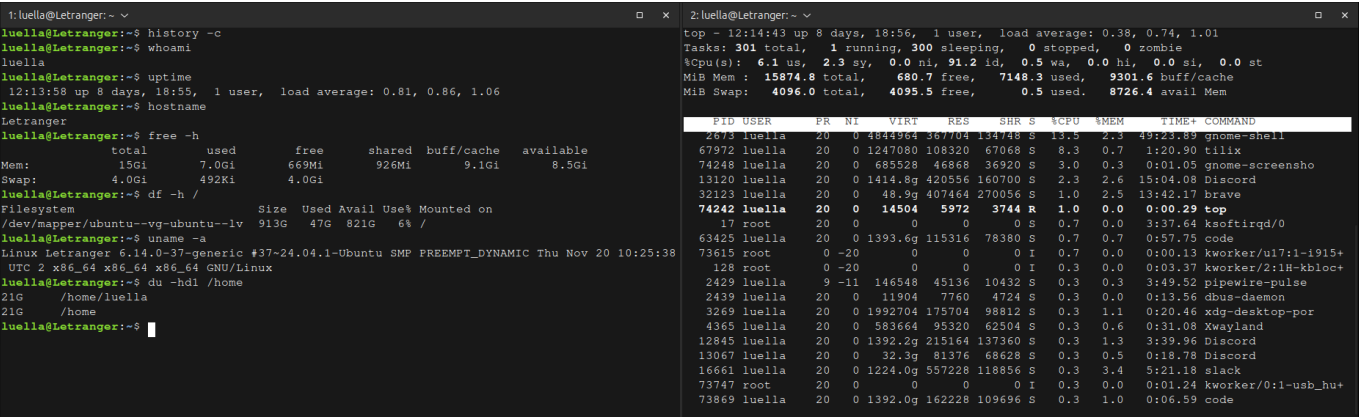
[lab3.md](#)

Practice Screenshots

Practice 3



Practice 4



Practice 5

```
1:luella@Letranger:~$ lsusb
Bus 001 Device 001: ID 1d6b:0002 Linux Foundation 2.0 root hub
Bus 001 Device 002: ID 8087:0a2b Intel Corp. Bluetooth wireless interface
Bus 001 Device 004: ID 042d:b51c Chicony Electronics Co., Ltd HP HD Camera
Bus 001 Device 029: ID 138a:003f Validity Sensors, Inc. VFS495 Fingerprint Reader
Bus 002 Device 001: ID 1d6b:0003 Linux Foundation 3.0 root hub

luella@Letranger:~$ lspci
00:00.0 Host bridge: Intel Corporation Xeon E3-1200 v5/E3-1500 v5/6th Gen Core Processor Host Bridge/DRAM Registers (rev 08)
00:02.0 VGA compatible controller: Intel Corporation Skylake GT2 [HD Graphics 520] (rev 07)
00:14.0 USB controller: Intel Corporation Sunrise Point-LP USB 3.0 xHCI Controller (rev 21)
00:14.2 Signal processing controller: Intel Corporation Sunrise Point-LP Thermal subsystem (rev 21)
00:15.0 Signal processing controller: Intel Corporation Sunrise Point-LP Serial IO I2C Controller #0 (rev 21)
00:16.0 Communication controller: Intel Corporation Sunrise Point-LP CSME HECI #1 (rev 21)
00:17.0 SATA controller: Intel Corporation Sunrise Point-LP SATA Controller [AHCI mode] (rev 21)
00:1c.0 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #2 (rev f1)
00:1c.3 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #4 (rev f1)
00:1d.0 PCI bridge: Intel Corporation Sunrise Point-LP PCI Express Root Port #9 (rev f1)
00:1f.0 ISA bridge: Intel Corporation Sunrise Point-LP LPC Controller (rev 21)
00:1f.2 Memory controller: Intel Corporation Sunrise Point-LP PMC (rev 21)
00:1f.3 Audio device: Intel Corporation Sunrise Point-LP HD Audio (rev 21)
00:1f.4 SMBus: Intel Corporation Sunrise Point-LP SMBus (rev 21)
00:1f.6 Ethernet controller: Intel Corporation Ethernet Connection I219-V (rev 21)
01:00.0 Unassigned class [ff00]: Realtek Semiconductor Co., Ltd. RTS522A PCI Express Card Reader (rev 01)
02:00.0 Network controller: Intel Corporation Wireless 8260 (rev 3a)
03:00.0 Non-Volatile memory controller: Micron/Crucial Technology P2 [Nick P2] / P3 / P3 Plus NVMe PCIe SSD (DRAM-less) (rev 01)

luella@Letranger:~$ lsblk
NAME        MAJ:MIN RM   SIZE RO TYPE MOUNTPOINTS
loop0        7:0    0     4K 1 loop /snap/bare/5
loop1        7:1    0    187.8M 1 loop /snap/brave/588
loop2        7:2    0    187.9M 1 loop /snap/brave/591
loop3        7:3    0    73.9M 1 loop /snap/core22/2216
loop4        7:4    0    63.8M 1 loop /snap/core20/2686

1:luella@Letranger:~$
2:luella@Letranger:~$ lscpu
Architecture: x86_64
CPU op-mode(s): 32-bit, 64-bit
Address sizes: 39 bits physical, 48 bits virtual
Byte Order: Little Endian
CPU(s): 4
On-line CPU(s) list: 0-3
Vendor ID: GenuineIntel
Model name: Intel(R) Core(TM) i5-6200U CPU @ 2.30GHz
CPU family: 6
Model: 78
Thread(s) per core: 2
Core(s) per socket: 2
Socket(s): 1
Stepping: 3
CPU(s) scaling MHz: 32%
CPU max MHz: 2800.0000
CPU min MHz: 400.0000
BogoMIPS: 4800.00
Flags: fpu vme de pse tsc msr pae mce cx8 apic sep mtrr pge mca cmov pat pse36 clflush dts acpi mmx fxsr sse sse2 ss ht tm pbe syscall nx pdpe1gb rdtscp lm constant_tsc art arch_perfmon pebs bts s rep_good nopl xtopology nonstop_tsc cpuid aperfmperf pni pcl mulqdq cgti sse4_1 sse4_2 x2apic movbe popcnt tsc_deadline_timer aes xsave avx f16c rdrand lahf_lm abm 3dnowprefetch cpuid_fault stibp bpb fsgsbase tsc_adjust bmi1 avx2 smep bmi2 erms invpcid mpx rdtscp adx smap clflushopt intel_pt xsaveopt xsavec xgetbv1 xsavec dtherm ida arat pln pts hwp hwp_notify hwp_act_window hwp_epp md_clear flush_lld arch_capabilities

Caches (sum of all):
L1d: 64 KiB (2 instances)
L1i: 64 KiB (2 instances)
L2: 512 KiB (2 instances)
L3: 3 MiB (1 instance)

NUMA:
NUMA node(s): 1
NUMA node0 config: 0-3
```

Practice 6

Practice 7

1: luella@Letranger: ~

```
luella@Letranger:~$ history -c
luella@Letranger:~$ date
Wed Feb 18 12:21:51 PM EST 2026
luella@Letranger:~$ echo "hello world"
hello world
luella@Letranger:~$ uname -a
Linux Letranger 6.14.0-37-generic #37~24.04.1-Ubuntu SMP PREEMPT_DYNAMIC Thu Nov 20 10:25:38
UTC 2 x86_64 x86_64 x86_64 GNU/Linux
luella@Letranger:~$ history
1 date
2 echo "hello world"
3 uname -a
4 history
luella@Letranger:~$ !#
luella@Letranger:~$ !# 2
2
2: command not found
luella@Letranger:~$ !2
echo "hello world"
hello world
luella@Letranger:~$ !!
echo "hello world"
hello world
luella@Letranger:~$ echo "hello"
hello
luella@Letranger:~$ !!world
echo "hello"world
helloworld
luella@Letranger:~$
```

2: luella@Letranger: ~

```
luella@Letranger:~$ echo -e "In the history for a, I saw the recent commands.\n\tFor the st
ep 8 question, it repeated the echo of hello but added world to the end of it."
In the history for a, I saw the recent commands.
    For the step 8 question, it repeated the echo of hello but added world to the end o
f it.
luella@Letranger:~$
```

3: luella@Letranger: ~

```
luella@Letranger:~$
```

Practice 8

1: luella@Letranger: ~

```
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)

Manual page uname(1) line 5 (press h for help or q to quit)
```

2: luella@Letranger: ~

```
luella@Letranger:~$ uname -s
Linux
luella@Letranger:~$ uname -m
x86_64
luella@Letranger:~$ uname -a
Linux Letranger 6.14.0-37-generic #37~24.04.1-Ubuntu SMP PREEMPT_DYNAMIC Thu Nov 20 10:25:3
8 UTC 2 x86_64 x86_64 x86_64 GNU/Linux
luella@Letranger:~$ uname -i
x86_64
luella@Letranger:~$ free -g
              total        used        free      shared  buff/cache   available
Mem:           15           6           0           0           9           8
Swap:           3           0           3           0           0           0
luella@Letranger:~$
```

3: luella@Letranger: ~

```
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.

Manual page free(1) line 41 (press h for help or q to quit)
```

Practice 9

```

1: luella@Letranger: ~
luella@Letranger:~$ free --help

Usage:
  free [options]

Options:
  -b, --bytes          show output in bytes
  -k, --kilo           show output in kilobytes
  -m, --mega           show output in megabytes
  -g, --giga           show output in gigabytes
  -t, --tera           show output in terabytes
  -p, --peta           show output in petabytes
  -K, --kibi           show output in kibibytes
  -M, --mebi           show output in mebibytes
  -G, --gibi           show output in gibibytes
  -T, --tebi           show output in tebibytes
  -P, --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).
luella@Letranger:~$

2: luella@Letranger: ~
luella@Letranger:~$ man --help
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
  -K, --global-apropos       search for text in all pages
  -l, --local-file           interpret PAGE argument(s) as local filename(s)
  -w, --where, --path, --location
                             print physical location of man page(s)
  -W, --where-cat, --location-cat

3: luella@Letranger: ~
luella@Letranger:~$ date --help
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
  -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

4: luella@Letranger: ~
luella@Letranger:~$ whatis ls
ls (6)             - display animations aimed to correct users who accidentally enter L...
ls (1)             - list directory contents
luella@Letranger:~$ whatis pwd
pwd (1)            - print name of current/working directory
luella@Letranger:~$ whatis apt
apt (8)            - command-line interface
luella@Letranger:~$ whatis sudo
sudo (8)           - execute a command as another user
luella@Letranger:~$

5: luella@Letranger: ~
luella@Letranger:~$ man --help
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
  -K, --global-apropos       search for text in all pages
  -l, --local-file           interpret PAGE argument(s) as local filename(s)
  -w, --where, --path, --location
                             print physical location of man page(s)
  -W, --where-cat, --location-cat

6: luella@Letranger: ~
luella@Letranger:~$ date --help
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
  -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

```

Practice 10

1: luella@Letranger: ~
luella@Letranger:~\$ tldr echo
Error: Page cache not found. Please run 'tldr --update' to download the cache.
Note: You can optionally enable automatic cache updates by adding the following config to your config file:
[updates]
auto_update = true
The path to your config file can be looked up with 'tldr --show-paths'.
To create an initial config file, use 'tldr --seed-config'.
You can find more tips and tricks in our docs:
https://dbrgn.github.io/tealdeer/config_updates.html
luella@Letranger:~\$ tldr date
Error: Page cache not found. Please run 'tldr --update' to download the cache.
Note: You can optionally enable automatic cache updates by adding the following config to your config file:
[updates]
auto_update = true
The path to your config file can be looked up with 'tldr --show-paths'.
To create an initial config file, use 'tldr --seed-config'.
You can find more tips and tricks in our docs:
https://dbrgn.github.io/tealdeer/config_updates.html
luella@Letranger:~\$

2: luella@Letranger: ~
luella@Letranger:~\$ sudo snap install cheat
snap "cheat" is already installed, see 'snap help refresh'
luella@Letranger:~\$ cheat
Usage:
cheat [options] [<cheatsheet>]
Options:
--init Write a default config file to stdout
-a --all Search among all cheatpaths
-c --colorize Colorize output
-d --directories List cheatsheet directories
-e --edit=<cheatsheet> Edit <cheatsheet>
-l --list List cheatsheets
-p --path=<name> Return only sheets found on cheatpath <name>
-r --regex Treat search <phrase> as a regex
-s --search=<phrase> Search cheatsheets for <phrase>

3: luella@Letranger: ~
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
luella@Letranger:~\$

1: luella@Letranger: ~
To print Time (localized):
date +%X
To print 4-digit year:
date +%Y
To print Timezone name:
date +%Z
To print the date in a format suitable for affixing to file names:
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
luella@Letranger:~\$

2: luella@Letranger: ~
luella@Letranger:~\$

3: luella@Letranger: ~
luella@Letranger:~\$