Question 1

NATS DIRECTORY STRUCTURE

Volumelcon.icns etc | .Vol var Applications usr library | System opt Users | Vol bin Cores dev etc home private tmp

bash
-r-xr-xr-x

passwd
-rw-r-r

current directory / current directory directory / one level up from current

disk0
brw -r -

b = block device
↳ device that stores data in fixed size blocks (hard disk, SSD)

c = character device
↳ reads and writes data as stream of characters

i = inode file
↳ data structure that stores metadata of a file

home directory = / home

etc directory = /etc/passwd
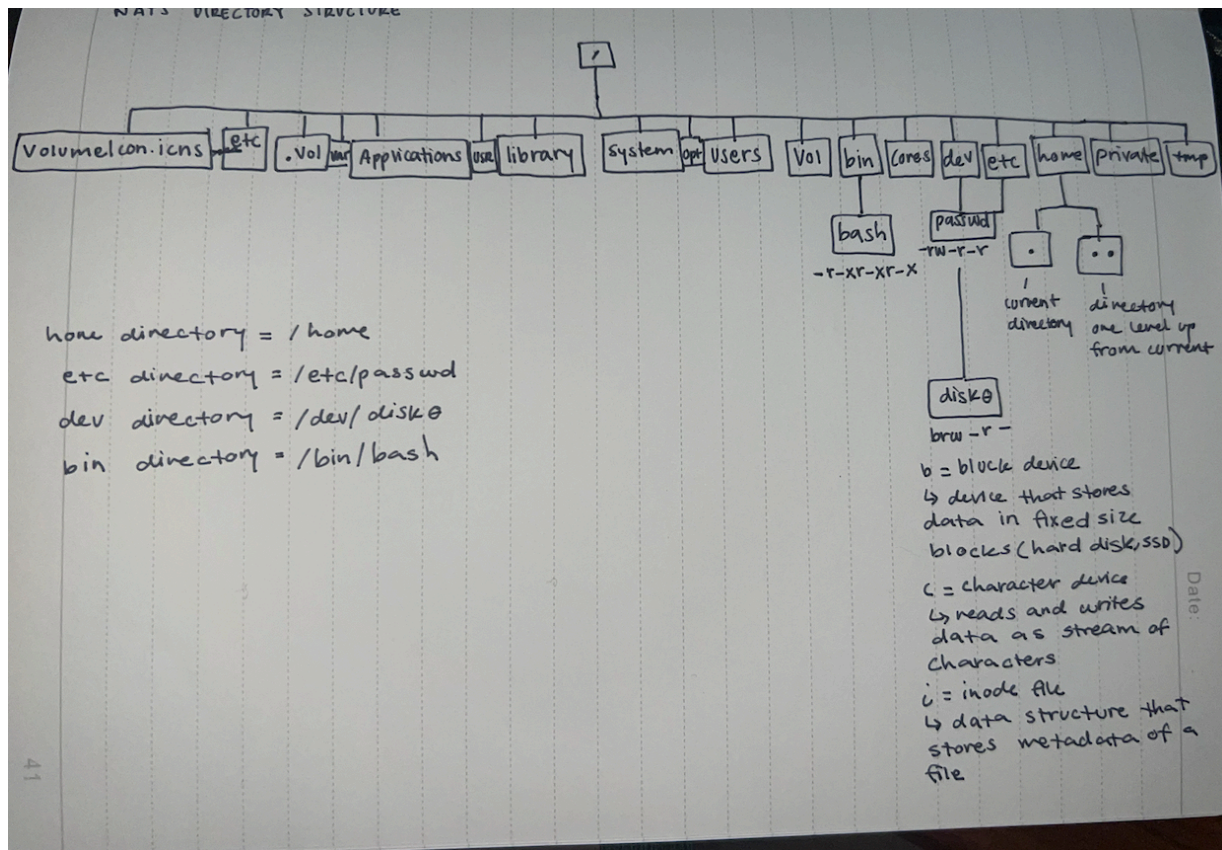
dev directory = /dev/disk0

bin directory = /bin/bash

Question 2

```
ls -a
nano .zshrc
source ~/.zshrc
pwd
ls
cd ncbi-blast-2.16.0+
pwd
blastn -version
cd blastn
ls blastn
ls /Users/nat/CONTRERAS_CODE/ncbi-blast-2.16.0+/bin
which blastn
/Users/nat/CONTRERAS_CODE/ncbi-blast-2.16.0+/bin/blastn -version\

blastn -help
exit
nat@Natalias-MacBook-Pro ~ $
```

```
nat@Natalias-MacBook-Pro ~ $ nano .zshrc
nat@Natalias-MacBook-Pro ~ $ source /.zshrc
source: no such file or directory: /.zshrc
nat@Natalias-MacBook-Pro ~ $ source ~/.zshrc
nat@Natalias-MacBook-Pro ~ $ which blastn
/Users/nat/CONTRERAS_CODE/ncbi-blast-2.16.0+/bin/blastn
nat@Natalias-MacBook-Pro ~ $ blastn -version
blastn: 2.16.0+
 Package: blast 2.16.0, build Jun 25 2024 11:53:51
nat@Natalias-MacBook-Pro ~ $
```

Question 3

```
cd ~
vim bash.txt
cd Desktop
vim biol668_bash.txt
rm output.txt
bash biol668_bash.txt > output.txt
vim out.txt
bash biol668_bash.txt > output.txt
vim output.txt
x
nat@Natalias-MacBook-Pro ~ $ ▐
```

output.txt

```
 6169 ??          0:00.83 /usr/libexec/siriknowledged
  726 ??          0:34.42 /usr/libexec/sharingd
  310 ??          0:50.25 /usr/libexec/logd
  425 ??         14:06.40 /usr/sbin/coreaudiod
  364 ??          1:28.39 /usr/libexec/PerfPowerServices
  357 ??          1:55.92 /usr/libexec/locationd
 4630 ??          0:26.78 /usr/libexec/mobileassetd
  637 ??          0:19.76 /usr/libexec/nsurlsessiond
  371 ??          1:11.76 /usr/sbin/bluetoothd
  785 ??         11:04.32 /usr/libexec/avconferenced
15
Tue Feb 18 19:21:26 PST 2025
    February 2025
Su Mo Tu We Th Fr Sa
                   1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28

nat
Filesystem     512-blocks       Used Available Capacity iused     ifree %iused  Mounted on
/dev/disk3s1s1 478724992   26046784  35274968     43%  404167 176374840    0%  /
devfs                392        392         0    100%     678         0  100%  /dev
/dev/disk3s6   478724992    4194424  35274968     11%       2 176374840    0%  /System/Volumes/VM
/dev/disk3s2   478724992   24100392  35274968     41%    1551 176374840    0%  /System/Volumes/Preboot
/dev/disk3s4   478724992    1304688  35274968      4%     310 176374840    0%  /System/Volumes/Update
/dev/disk1s2     1024000      12328    988272      2%       1   4941360    0%  /System/Volumes/xarts
/dev/disk1s1     1024000      12704    988272      2%      32   4941360    0%  /System/Volumes/iSCPreboot
/dev/disk1s3     1024000        976    988272      1%      50   4941360    0%  /System/Volumes/Hardware
/dev/disk3s5   478724992  383750744  35274968     92% 1779043 176374840    1%  /System/Volumes/Data
map auto_home          0          0         0    100%       0         0    -   /System/Volumes/Data/home
/dev/disk3s1   478724992   26046784  35274968     43%  404492 176374840    0%  /System/Volumes/Update/mnt1
/opt/anaconda3/bin/python
```

Question 4

```
nano .zshrc
source .zshrc
cd Documents
ls
cp world2.txt /Users/nat/Desktop
r
c
which
rm world2.txt
ls
qfind Adobe
..
cd Downloads
ls
h
qfind *.csv
qfind .csv
qfind zshrc
nano .zshrc
~
nano .zshrc
ls -a
ls -al
cat .zsh_history
cp .zshrc contreras_ zshrc_profile Desktop
cp .zshrc contreras_zshrc_profile Desktop
cp ~/.zshrc ~/Desktop/zshrc_biol668
cd Desktop
ls
nat@Natalias-MacBook-Pro ~ $ ▉
```

Note: these is part of the .zsh_history, all the commands work correctly on my terminal.