Cloud-SPAN Prenomics

Why learn command line?

- automate repetitive tasks
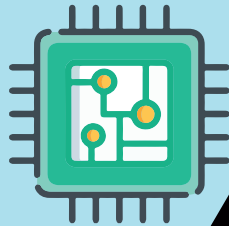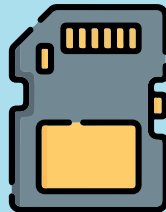- reduce human error
- access new tools
- improve reproducibility

Why use the cloud?

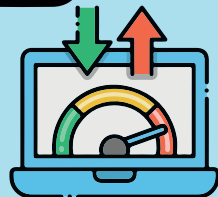- processing power
- memory
- disk space
- network bandwidth

more resources needed
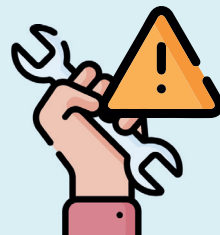
- long analysis times
- issues installing software

File types

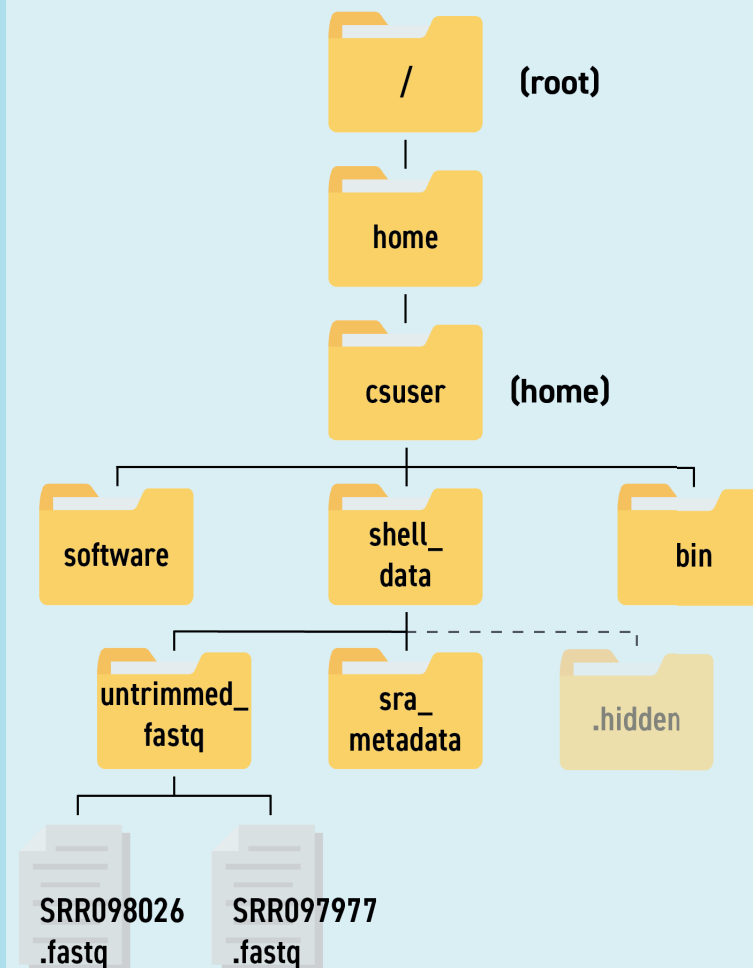|	
.pem	stores a cryptographic key which grants access to the instance
.txt	stores lines of text with minimal formatting
.fastq	stores sequencing data in a text-based format

Files and paths

absolute path: full address of file relative to root directory

relative path: address of file relative to current working directory

Cloud-SPAN instance file system

```
/            (root)
home
csuser       (home)
├── software
├── shell_data
│   ├── untrimmed_fastq
│   │   ├── SRR098026.fastq
│   │   └── SRR097977.fastq
│   ├── sra_metadata
│   └── .hidden
└── bin
```

Command cheatsheet

cd directory _____ change directory
ls directory _____ list contents of directory
pwd _____ print present working directory

cat file _____ concatenate (print) contents of file
less file _____ view file contents in viewer
head n file _____ print head (first n lines) of file
tail n file _____ print tail (final n lines) of file

cp file newfile _____ copy file to newfile
mv file directory _____ move file to directory
mkdir directory _____ make new directory
rm file _____ remove file

grep string file _____ search for string within file
wc file _____ perform word count on file

- Navigating
- Viewing
- Editing
- Searching