System Directory Hierarchy

/  
  ru-auth
  local
  home
  unixinst
  unixst01
  unixst02
  others
  sequences
  bin
  Quotation
  quotation
  others
  a4_bovin.sw
  1O91.pdb
  others

Relative Pathnames

```
cat ./unixinst/quotation
```

```
/  ru-auth  local  home
```

```
unixinst  unixst01  unixst02  others
```

```
sequences  bin  Quotation  quotation
```

```
a4_bovin.sw  1O91.pdb  others
```

UNIX Commands: No Redirection

sort
UNIX Commands: Redirect input

sort < in.txt
UNIX Commands: Redirect Output

sort > sorted.txt
UNIX Commands: Redirect Output

sort > sorted.txt 2> err.log
UNIX Commands: Combined Redirection

```
sort > sorted.txt 2>&1
```

stdin -> stdout

stderr
UNIX Commands: More examples

```
sort < in.txt > sorted.txt
```
UNIX Commands: More examples

```
sort < in.txt >> sorted.txt
```
UNIX Commands: More examples

```
sort < in.txt > sorted.txt 2>&1
```
Unix Commands: Pipes

egrep PAT < in.txt | sort | head -1 > first.txt
The `csplit` Command

`csplit seq.fasta '%^>%%' '/^>/' '{3}'`

`csplit seq.fasta '%^>%%' '/^>/' '/^>/' '/^>/' '/^>/' '/^>/'`

5 patterns = 6 groups

- Lines before the first match.
- Lines from the first match up to (but not including) the second match.
- Lines from the second match up to (but not including) the third match.
- Lines from the third match up to (but not including) the fourth match.
- Lines from the fourth match up to (but not including) the fifth match.
- Lines from the fifth match up to the end of the file.

Modes of vi

SURF

EDIT

COMMAND

:Aa
:li
:oo

<S escapesequence>

:wx
:q!