

## Assignment 05

### 1.1

```
[ese-tiank@login02 ~]$ ln -s data_demo data_demo_link  
[ese-tiank@login02 ~]$ ls  
data_demo  data_demo_link  exam
```

### 1.2

```
[ese-tiank@login02 ~]$ echo $(pwd)  
/work/ese-tiank
```

### 1.3

```
[ese-tiank@login02 ~]$ cd data_demo/molecules/  
[ese-tiank@login02 molecules]$ touch test.pdb  
[ese-tiank@login02 molecules]$ ls  
cubane.pdb  ethane.pdb  methane.pdb  octane.pdb  pentane.pdb  propane.pdb  
test.pdb
```

### 1.4

```
[ese-tiank@login02 molecules]$ cd ../data/elements/  
[ese-tiank@login02 elements]$ find . -type f | wc -l  
103
```

### 1.5

```
[ese-tiank@login02 elements]$ cd ../pdb/  
[ese-tiank@login02 pdb]$ diff ethane.pdb ethanol.pdb  
1,11c1,12  
< COMPND      ETHANE  
< AUTHOR      DAVE WOODCOCK  95 12 18  
< ATOM        1  C          1    -0.752   0.001  -0.141   1.00   0.00  
< ATOM        2  C          1     0.752  -0.001   0.141   1.00   0.00  
< ATOM        3  H          1    -1.158   0.991   0.070   1.00   0.00  
< ATOM        4  H          1    -1.240  -0.737   0.496   1.00   0.00  
< ATOM        5  H          1    -0.924  -0.249  -1.188   1.00   0.00  
< ATOM        6  H          1     1.158  -0.991  -0.070   1.00   0.00  
< ATOM        7  H          1     0.924   0.249   1.188   1.00   0.00  
< ATOM        8  H          1     1.240   0.737  -0.496   1.00   0.00  
< TER         9              1  
---  
> COMPND      ETHANOL  
> AUTHOR      DAVE WOODCOCK  96 01 03  
> ATOM        1  C          1    -0.426  -0.115  -0.147   1.00   0.00
```

```

> ATOM      2  O          1      -0.599   1.244  -0.481   1.00   0.00
> ATOM      3  H          1      -0.750  -0.738  -0.981   1.00   0.00
> ATOM      4  H          1      -1.022  -0.351   0.735   1.00   0.00
> ATOM      5  H          1      -1.642   1.434  -0.689   1.00   0.00
> ATOM      6  C          1       1.047  -0.383   0.147   1.00   0.00
> ATOM      7  H          1       1.370   0.240   0.981   1.00   0.00
> ATOM      8  H          1       1.642  -0.147  -0.735   1.00   0.00
> ATOM      9  H          1       1.180  -1.434   0.405   1.00   0.00
> TER      10          1

```

## 1.6

```

[ese-tiank@login02 pdb]$ cd ~
[ese-tiank@login02 ~]$ cd data_demo/writing/data/
[ese-tiank@login02 data]$ grep -c "But she" LittleWomen.txt
15

```

## 1.7

```

[ese-tiank@login02 data]$ cd ~/data_demo/data/
[ese-tiank@login02 data]$ du -ch
409K    ./pdb
52K     ./elements
1.0K    ./animal-counts
721K    .
721K    total

```

## 1.8

```

[ese-tiank@login02 data]$ cd ..
[ese-tiank@login02 data_demo]$ ls
creatures  data  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  temp
writing
[ese-tiank@login02 data_demo]$ cp -r writing writing_new
[ese-tiank@login02 data_demo]$ ls
creatures  data  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  temp
writing    writing_new
[ese-tiank@login02 data_demo]$ zip -m -r writing_new.zip writing_new
adding: writing_new/ (stored 0%)
adding: writing_new/haiku.txt (deflated 29%)
adding: writing_new/tools/ (stored 0%)
adding: writing_new/tools/stats (stored 0%)
adding: writing_new/tools/old/ (stored 0%)
adding: writing_new/tools/old/oldtool (stored 0%)
adding: writing_new/tools/format (deflated 13%)
adding: writing_new/data/ (stored 0%)
adding: writing_new/data/one.txt (deflated 53%)

```

```

adding: writing_new/data/LittleWomen.txt (deflated 61%)
adding: writing_new/data/two.txt (deflated 59%)
adding: writing_new/thesis/ (stored 0%)
adding: writing_new/thesis/empty-draft.md (stored 0%)
[ese-tiank@login02 data_demo]$ ls
creatures  data  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  temp
writing  writing_new.zip
[ese-tiank@login02 data_demo]$ unzip writing_new.zip
Archive:  writing_new.zip
  creating: writing_new/
  inflating: writing_new/haiku.txt
   creating: writing_new/tools/
 extracting: writing_new/tools/stats
   creating: writing_new/tools/old/
 extracting: writing_new/tools/old/oldtool
  inflating: writing_new/tools/format
   creating: writing_new/data/
  inflating: writing_new/data/one.txt
  inflating: writing_new/data/LittleWomen.txt
  inflating: writing_new/data/two.txt
   creating: writing_new/thesis/
 extracting: writing_new/thesis/empty-draft.md
[ese-tiank@login02 data_demo]$ ls
creatures  data  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  temp
writing  writing_new  writing_new.zip

```

## 1.9

```

[ese-tiank@login02 data_demo]$ chmod 750 writing_new
[ese-tiank@login02 data_demo]$ ll
total 645
drwxr-xr-x 2 ese-tiank ese-ouycc 4096 Dec  2 17:56 creatures
drwxr-xr-x 5 ese-tiank ese-ouycc 4096 Dec  2 17:56 data
drwxr-xr-x 2 ese-tiank ese-ouycc 4096 Dec  2 21:34 molecules
drwxr-xr-x 3 ese-tiank ese-ouycc 4096 Dec  2 17:56 north-pacific-gyre
-rwxr-xr-x 1 ese-tiank ese-ouycc   76 Dec  2 17:56 notes
-rwxr-xr-x 1 ese-tiank ese-ouycc   32 Dec  2 17:56 pizza.cfg
-rwxr-xr-x 1 ese-tiank ese-ouycc 21583 Dec  2 17:56 solar.pdf
-rw-r--r-- 1 ese-tiank ese-ouycc   20 Dec  2 17:56 temp
drwxr-xr-x 5 ese-tiank ese-ouycc 4096 Dec  2 17:56 writing
drwxr-x--- 5 ese-tiank ese-ouycc 4096 Dec  2 21:59 writing_new
-rw-r--r-- 1 ese-tiank ese-ouycc 422584 Dec  2 22:00 writing_new.zip

```

## 1.10

```

[ese-tiank@login02 data_demo]$ history 10

```

```

34 ls
35 cp -r writing writing_new
36 ls
37 zip -m -r writing_new.zip writing_new
38 ls
39 unzip writing_new.zip
40 ls
41 chmod 750 writing_new
42 ll
43 history 10

```

输出截图如下：

```

[ese-tiank@login02 ~]$ ln -s data_demo data_demo_link
[ese-tiank@login02 ~]$ ls
data_demo data_demo_link exam
[ese-tiank@login02 ~]$ echo $(pwd)
/work/ese-tiank
[ese-tiank@login02 ~]$ cd data_demo/molecules/
[ese-tiank@login02 molecules]$ touch test.pdb
[ese-tiank@login02 molecules]$ ls
cubane.pdb ethane.pdb methane.pdb octane.pdb pentane.pdb propane.pdb test.pdb
[ese-tiank@login02 molecules]$ cd ../data/elements/

```

```

[ese-tiank@login02 elements]$ find . -type f | wc -l
103

```

```

[ese-tiank@login02 elements]$ cd ../pdb/
[ese-tiank@login02 pdb]$ diff -q ethane.pdb ethanol.pdb

```

```

[ese-tiank@login02 pdb]$ diff ethane.pdb ethanol.pdb
1,11c1,12
< COMPND          ETHANE
< AUTHOR          DAVE WOODCOCK   95 12 18
< ATOM            1  C              1      -0.752   0.001  -0.141   1.00   0.00
< ATOM            2  C              1       0.752  -0.001   0.141   1.00   0.00
< ATOM            3  H              1     -1.158   0.991   0.070   1.00   0.00
< ATOM            4  H              1     -1.240  -0.737   0.496   1.00   0.00
< ATOM            5  H              1     -0.924  -0.249  -1.188   1.00   0.00
< ATOM            6  H              1      1.158  -0.991  -0.070   1.00   0.00
< ATOM            7  H              1      0.924   0.249   1.188   1.00   0.00
< ATOM            8  H              1      1.240   0.737  -0.496   1.00   0.00
< TER             9
---
> COMPND          ETHANOL
> AUTHOR          DAVE WOODCOCK   96 01 03
> ATOM            1  C              1     -0.426  -0.115  -0.147   1.00   0.00
> ATOM            2  O              1     -0.599   1.244  -0.481   1.00   0.00
> ATOM            3  H              1     -0.750  -0.738  -0.981   1.00   0.00
> ATOM            4  H              1     -1.022  -0.351   0.735   1.00   0.00
> ATOM            5  H              1     -1.642   1.434  -0.689   1.00   0.00
> ATOM            6  C              1      1.047  -0.383   0.147   1.00   0.00
> ATOM            7  H              1      1.370   0.240   0.981   1.00   0.00
> ATOM            8  H              1      1.642  -0.147  -0.735   1.00   0.00
> ATOM            9  H              1      1.180  -1.434   0.405   1.00   0.00
> TER           10

```

```
[ese-tiank@login02 pdb]$ cd ~
[ese-tiank@login02 ~]$ cd data_demo/writing/data/
[ese-tiank@login02 data]$ grep -F "But she" LittleWomen.txt
" Oh, bless you, no! But she let old Belsham rest, and when I ran back
small quaver in her voice, "I came to thank you, sir, for..." But she
than she went. But she begged so hard, and Sallie had promised to take
    But she does not hunt as our darling did,
    But she only spits at the dogs our pet
    But she is not fair to see,
queer thing for her to do, she doesn't act a bit like herself. But she
aspirant for fame, with philosophic composure. But she made a wry face
her. But she can pet and comfort him after I'm gone, and so cure him
to see signs of hope in the faint color on Beth's cheeks. But she
But she did not get it, for though he joined her and answered all her
sketchbook. But she tucked it under her arm with a sharp...
Amy did any of these fond and foolish things. But she certainly did
But she did show something better than brilliancy or skill, for she
grasshopper. But she would have consented if he had proposed to sing a
[ese-tiank@login02 data]$ grep -c "But she" LittleWomen.txt
15
[ese-tiank@login02 data]$ cd ~/data_demo/data/
```

```
[ese-tiank@login02 data]$ du -ch
409K    ./pdb
52K     ./elements
1.0K    ./animal-counts
721K    .
721K    total
[ese-tiank@login02 data]$ cd ..
[ese-tiank@login02 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf temp writing
[ese-tiank@login02 data_demo]$ cp -r writing writing_new
[ese-tiank@login02 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf temp writing writing_new
[ese-tiank@login02 data_demo]$ zip -m -r writing_new.zip writing_new
adding: writing_new/ (stored 0%)
adding: writing_new/haiku.txt (deflated 29%)
adding: writing_new/tools/ (stored 0%)
adding: writing_new/tools/stats (stored 0%)
adding: writing_new/tools/old/ (stored 0%)
adding: writing_new/tools/old/oldtool (stored 0%)
adding: writing_new/tools/old/format (deflated 13%)
adding: writing_new/data/ (stored 0%)
adding: writing_new/data/one.txt (deflated 53%)
adding: writing_new/data/LittleWomen.txt (deflated 61%)
adding: writing_new/data/two.txt (deflated 59%)
adding: writing_new/thesis/ (stored 0%)
adding: writing_new/thesis/empty-draft.md (stored 0%)
```

```
[ese-tiank@login02 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf temp writing writing_new.zip
[ese-tiank@login02 data_demo]$ unzip writing_new.zip
Archive: writing_new.zip
  creating: writing_new/
   inflating: writing_new/haiku.txt
  creating: writing_new/tools/
 extracting: writing_new/tools/stats
  creating: writing_new/tools/old/
 extracting: writing_new/tools/old/oldtool
   inflating: writing_new/tools/format
  creating: writing_new/data/
   inflating: writing_new/data/one.txt
   inflating: writing_new/data/LittleWomen.txt
   inflating: writing_new/data/two.txt
  creating: writing_new/thesis/
 extracting: writing_new/thesis/empty-draft.md
```

```

[ese-tiank@login02 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf temp writing writing_new writing_new.zip
[ese-tiank@login02 data_demo]$ chmod 750 writing_new
[ese-tiank@login02 data_demo]$ ll
total 645
drwxr-xr-x 2 ese-tiank ese-ouycc 4096 Dec 2 17:56 creatures
drwxr-xr-x 5 ese-tiank ese-ouycc 4096 Dec 2 17:56 data
drwxr-xr-x 2 ese-tiank ese-ouycc 4096 Dec 2 21:34 molecules
drwxr-xr-x 3 ese-tiank ese-ouycc 4096 Dec 2 17:56 north-pacific-gyre
-rwxr-xr-x 1 ese-tiank ese-ouycc 76 Dec 2 17:56 notes
-rwxr-xr-x 1 ese-tiank ese-ouycc 32 Dec 2 17:56 pizza.cfg
-rwxr-xr-x 1 ese-tiank ese-ouycc 21583 Dec 2 17:56 solar.pdf
-rw-r--r-- 1 ese-tiank ese-ouycc 20 Dec 2 17:56 temp
drwxr-xr-x 5 ese-tiank ese-ouycc 4096 Dec 2 17:56 writing
drwxr-xr-x 5 ese-tiank ese-ouycc 4096 Dec 2 21:59 writing_new
-rw-r--r-- 1 ese-tiank ese-ouycc 422584 Dec 2 22:00 writing_new.zip
[ese-tiank@login02 data_demo]$ history 10
34 ls
35 cp -r writing writing_new
36 ls
37 zip -m -r writing_new.zip writing_new
38 ls
39 unzip writing_new.zip
40 ls
41 chmod 750 writing_new
42 ll
43 history 10

```

2、

```
[ese-tiank@login02 data_demo]$ cd data/pdb/
```

```
[ese-tiank@login02 pdb]$ nano py.sh
```

```
for file in *.pdb
```

```
do
```

```
    echo $(du -bh $file)
```

```
done
```

```
[ese-tiank@login02 pdb]$ bash py.sh
```

```
1.5K aldrin.pdb
```

```
306 ammonia.pdb
```

```
1.5K ascorbic-acid.pdb
```

```
1.1K benzaldehyde.pdb
```

```
1.8K camphene.pdb
```

```
5.0K cholesterol.pdb
```

```
1.1K cinnamaldehyde.pdb
```

```
1.7K citronellal.pdb
```

```
2.4K codeine.pdb
```

```
1.2K cubane.pdb
```

```
895 cyclobutane.pdb
```

```
1.4K cyclohexanol.pdb
```

```
695 cyclopropane.pdb
```

```
622 ethane.pdb
```

```
690 ethanol.pdb
```

```
2.4K ethylcyclohexane.pdb
```

```
765 glycol.pdb
```

```
4.2K heme.pdb
```

```
1.1K lactic-acid.pdb
```

```
2.6K lactose.pdb
```

11K lanoxin.pdb  
3.4K lsd.pdb  
2.6K maltose.pdb  
2.2K menthol.pdb  
422 methane.pdb  
490 methanol.pdb  
1.9K mint.pdb  
2.3K morphine.pdb  
2.1K mustard.pdb  
1.7K nerol.pdb  
2.7K norethindrone.pdb  
1.8K octane.pdb  
1.2K pentane.pdb  
2.3K piperine.pdb  
825 propane.pdb  
1.3K pyridoxal.pdb  
3.3K quinine.pdb  
2.7K strychnine.pdb  
1.2K styrene.pdb  
2.6K sucrose.pdb  
2.8K testosterone.pdb  
2.2K thiamine.pdb  
1.5K tnt.pdb  
2.4K tuberin.pdb  
2.1K tyrian-purple.pdb  
1.4K vanillin.pdb  
423 vinyl-chloride.pdb  
2.9K vitamin-a.pdb

运行截图如下:

```
[ese-tiank@login02 data_demo]$ cd data/pdb/
```

```
[ese-tiank@login02 pdb]$ nano py.sh
[ese-tiank@login02 pdb]$ bash py.sh
1.5K aldrin.pdb
306 ammonia.pdb
1.5K ascorbic-acid.pdb
1.1K benzaldehyde.pdb
1.8K camphene.pdb
5.0K cholesterol.pdb
1.1K cinnamaldehyde.pdb
1.7K citronellal.pdb
2.4K codeine.pdb
1.2K cubane.pdb
895 cyclobutane.pdb
1.4K cyclohexanol.pdb
695 cyclopropane.pdb
622 ethane.pdb
690 ethanol.pdb
2.4K ethylcyclohexane.pdb
765 glycol.pdb
4.2K heme.pdb
1.1K lactic-acid.pdb
2.6K lactose.pdb
11K lanoxin.pdb
3.4K lsd.pdb
2.6K maltose.pdb
2.2K menthol.pdb
422 methane.pdb
490 methanol.pdb
1.9K mint.pdb
2.3K morphine.pdb
2.1K mustard.pdb
1.7K nerol.pdb
2.7K norethindrone.pdb
1.8K octane.pdb
1.2K pentane.pdb
2.3K piperine.pdb
825 propane.pdb
1.3K pyridoxal.pdb
3.3K quinine.pdb
2.7K strychnine.pdb
1.2K styrene.pdb
```

```
2.6K sucrose.pdb
2.8K testosterone.pdb
2.2K thiamine.pdb
1.5K tnt.pdb
2.4K tuberin.pdb
2.1K tyrian-purple.pdb
1.4K vanillin.pdb
423 vinyl-chloride.pdb
2.9K vitamin-a.pdb
```