

Assignment 05

朱慧妍 12032885

```
[ese-zhuhy@login02 ~]$ ln -s data_demo data_demo_link
[ese-zhuhy@login02 ~]$ ls
data_demo data_demo_link exam
[ese-zhuhy@login02 ~]$ echo $USER
ese-zhuhy
[ese-zhuhy@login02 ~]$ cd data_demo/molecules/
[ese-zhuhy@login02 molecules]$ touch test.pdb
[ese-zhuhy@login02 molecules]$ ls
cubane.pdb ethane.pdb methane.pdb octane.pdb pentane.pdb propane.pdb test.pdb
[ese-zhuhy@login02 molecules]$
```

```
[ese-zhuhy@login02 ~]$ cd data_demo
data_demo/      data_demo_link/
[ese-zhuhy@login02 ~]$ cd data_demo/
creatures/      molecules/      writing/
data/           north-pacific-gyre/ writing_new/
[ese-zhuhy@login02 ~]$ cd data_demo/data/elements/
[ese-zhuhy@login02 elements]$ ls -l |grep "^-"|wc -l
103
[ese-zhuhy@login02 elements]$ cd
[ese-zhuhy@login02 ~]$ cd
data_demo/      data_demo_link/ exam/      .local/      .ssh/
[ese-zhuhy@login02 ~]$ cd data_demo/
creatures/      molecules/      writing/
data/           north-pacific-gyre/ writing_new/
[ese-zhuhy@login02 ~]$ cd data_demo/data/
animal-counts/ elements/      pdb/
[ese-zhuhy@login02 ~]$ cd data_demo/data/pdb/
[ese-zhuhy@login02 pdb]$ diff -c ethane.pdb ethanol.pdb
*** ethane.pdb 2021-11-24 19:21:39.000000000 +0800
--- ethanol.pdb 2021-11-24 19:21:39.000000000 +0800
*****
*** 1,12 ****
! 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
! ATOM        9          1
! TER
! END
--- 1,13 ----
! 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
! ATOM       10          1
! TER
! END
[ese-zhuhy@login02 pdb]$
```

```

[ese-zhuhy@login02 ~]$ cd data_demo/
creatures/      molecules/      writing/
data/           north-pacific-gyre/ writing_new/
[ese-zhuhy@login02 ~]$ cd data_demo/writing/data/
[ese-zhuhy@login02 data]$ grep -rn 'But she'*
LittleWomen.txt:1808:"Oh, bless you, no! But she let old Belsham rest, and when I ran back
LittleWomen.txt:2746:small quaver in her voice, "I came to thank you, sir, for..." But she
LittleWomen.txt:3635:than she went. But she begged so hard, and Sallie had promised to take
LittleWomen.txt:4535: But she does not hunt as our darling did,
LittleWomen.txt:4540: But she only spits at the dogs our pet
LittleWomen.txt:4544: But she is not fair to see,
LittleWomen.txt:4879:queer thing for her to do, she doesn't act a bit like herself. But she
LittleWomen.txt:13203:aspirant for fame, with philosophic composure. But she made a wry face
LittleWomen.txt:14085:her. But she can pet and comfort him after I'm gone, and so cure him
LittleWomen.txt:15723:to see signs of hope in the faint color on Beth's cheeks. But she
LittleWomen.txt:16081:But she did not get it, for though he joined her and answered all her
LittleWomen.txt:16912:sketchbook. But she tucked it under her arm with a sharp...
LittleWomen.txt:17939:Amy did any of these fond and foolish things. But she certainly did
LittleWomen.txt:19071:But she did show something better than brilliancy or skill, for she
LittleWomen.txt:19091:grasshopper. But she would have consented if he had proposed to sing a
[ese-zhuhy@login02 data]$ cd
[ese-zhuhy@login02 ~]$ cd data_demo/
creatures/      molecules/      writing/
data/           north-pacific-gyre/ writing_new/
[ese-zhuhy@login02 ~]$ cd data_demo/writing
writing/      writing_new/
[ese-zhuhy@login02 ~]$ cd data_demo/writing/
[ese-zhuhy@login02 writing]$ du -h
512      ./tools/old
2.0K     ./tools
1.3M     ./data
512      ./thesis
1.3M     .
[ese-zhuhy@login02 writing]$

```

```

[ese-zhuhy@login02 writing]$ cd
[ese-zhuhy@login02 ~]$ cd data_demo/
[ese-zhuhy@login02 data_demo]$ cp -r writing/ writing_new
[ese-zhuhy@login02 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf writing writing_new writing_new.zip

```

```

[ese-zhuhy@login02 data_demo]$ zip -r writing_new.zip ./
updating: creatures/ (stored 0%)
updating: creatures/basilisk.dat (deflated 59%)
updating: creatures/minotaur.dat (deflated 58%)
updating: creatures/unicorn.dat (deflated 63%)
updating: data/ (stored 0%)
updating: data/amino-acids.txt (deflated 42%)
updating: data/pdb/ (stored 0%)
updating: data/pdb/lanoxin.pdb (deflated 76%)
updating: data/pdb/methanol.pdb (deflated 63%)
updating: data/pdb/citronellal.pdb (deflated 71%)
updating: data/pdb/norethindrone.pdb (deflated 73%)
updating: data/pdb/heme.pdb (deflated 74%)
updating: data/pdb/mustard.pdb (deflated 72%)
updating: data/pdb/ammonia.pdb (deflated 57%)
updating: data/pdb/ascorbic-acid.pdb (deflated 73%)
updating: data/pdb/lactic-acid.pdb (deflated 73%)
updating: data/pdb/methane.pdb (deflated 66%)
updating: data/pdb/morphine.pdb (deflated 72%)
updating: data/pdb/piperine.pdb (deflated 71%)
updating: data/pdb/maltose.pdb (deflated 73%)
updating: data/pdb/testosterone.pdb (deflated 73%)
updating: data/pdb/thiamine.pdb (deflated 72%)
updating: data/pdb/quinine.pdb (deflated 77%)
updating: data/pdb/tyrian-purple.pdb (deflated 75%)
updating: data/pdb/tuberin.pdb (deflated 76%)
updating: data/pdb/cinnamaldehyde.pdb (deflated 69%)
updating: data/pdb/vitamin-a.pdb (deflated 74%)
updating: data/pdb/ethylcyclohexane.pdb (deflated 73%)
updating: data/pdb/strychnine.pdb (deflated 73%)
updating: data/pdb/sucrose.pdb (deflated 73%)

```

```

[ese-zhuhy@login02 data_demo]$ unzip -o writing_new.zip
Archive:  writing_new.zip
  inflating: creatures/basilisk.dat
  inflating: creatures/minotaur.dat
  inflating: creatures/unicorn.dat
  inflating: data/amino-acids.txt
  inflating: data/pdb/lanoxin.pdb
  inflating: data/pdb/methanol.pdb
  inflating: data/pdb/citronellal.pdb
  inflating: data/pdb/norethindrone.pdb
  inflating: data/pdb/heme.pdb
  inflating: data/pdb/mustard.pdb
  inflating: data/pdb/ammonia.pdb
  inflating: data/pdb/ascorbic-acid.pdb
  inflating: data/pdb/lactic-acid.pdb
  inflating: data/pdb/methane.pdb
  inflating: data/pdb/morphine.pdb
  inflating: data/pdb/piperine.pdb
  inflating: data/pdb/maltose.pdb
  inflating: data/pdb/testosterone.pdb
  inflating: data/pdb/thiamine.pdb
  inflating: data/pdb/quinine.pdb
  inflating: data/pdb/tyrian-purple.pdb
  inflating: data/pdb/tuberin.pdb
  inflating: data/pdb/cinnamaldehyde.pdb
  inflating: data/pdb/vitamin-a.pdb
  inflating: data/pdb/ethylcyclohexane.pdb
  inflating: data/pdb/strychnine.pdb
  inflating: data/pdb/sucrose.pdb
  inflating: data/pdb/pentane.pdb
  inflating: data/pdb/nerol.pdb
  inflating: data/pdb/vinyl-chloride.pdb
  inflating: data/pdb/camphene.pdb
  inflating: data/pdb/aldrin.pdb
  inflating: data/pdb/cubane.pdb
  inflating: data/pdb/ethanol.pdb
  inflating: data/pdb/cholesterol.pdb
  inflating: data/pdb/cyclobutane.pdb

[ese-zhuhy@login02 data_demo]$ chmod 750 writing_new
[ese-zhuhy@login02 data_demo]$ ls
creatures  data  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  writing  writing_new  writing_new.zip
[ese-zhuhy@login02 data_demo]$ history 10
25  du -h
26  cd
27  cd data_demo/
28  cp -r writing/ writing_new
29  ls
30  zip -r writing_new.zip ./
31  unzip -o writing_new.zip
32  chmod 750 writing_new
33  ls
34  history 10
[ese-zhuhy@login02 data_demo]$

```

第二题需要计算文件内所有文件的大小，采用的命令是 du,用一个 bash 脚本来实行。

for pdb in *.pdb

do du -b

\$pdb

Done

```

[ese-zhuhy@login02 ~]$ cd data_demo/
creatures/      molecules/      writing/
data/           north-pacific-gyre/ writing_new/
[ese-zhuhy@login02 ~]$ cd data_demo/data/pdb/
[ese-zhuhy@login02 pdb]$ ls
aldrin.pdb      cubane.pdb      lactic-acid.pdb  mint.pdb        pyridoxal.pdb   tyrian-purple.pdb
ammonia.pdb     cyclobutane.pdb lactose.pdb      morphine.pdb    quinine.pdb     vanillin.pdb
ascorbic-acid.pdb cyclohexanol.pdb lanoxin.pdb     mustard.pdb     strychnine.pdb  vinyl-chloride.pdb
benzaldehyde.pdb cyclopropane.pdb loop.sh         nerol.pdb       styrene.pdb     vitamin-a.pdb
camphene.pdb    ethane.pdb      lsd.pdb         norethindrone.pdb sucrose.pdb
cholesterol.pdb ethanol.pdb      maltose.pdb     octane.pdb      testosterone.pdb
cinnamaldehyde.pdb ethylcyclohexane.pdb menthol.pdb    pentane.pdb     thiamine.pdb
citronellal.pdb glycol.pdb       methane.pdb     piperine.pdb   tnt.pdb
codeine.pdb     heme.pdb        methanol.pdb    propane.pdb     tuberin.pdb
[ese-zhuhy@login02 pdb]$ chmod 750 l
lactic-acid.pdb lactose.pdb      lanoxin.pdb     loop.sh         lsd.pdb
[ese-zhuhy@login02 pdb]$ chmod 750 loop.sh
[ese-zhuhy@login02 pdb]$ ./loop.sh
1516   aldrin.pdb
306    ammonia.pdb
1444   ascorbic-acid.pdb
1030   benzaldehyde.pdb
1830   camphene.pdb
5049   cholesterol.pdb
1090   cinnamaldehyde.pdb
1694   citronellal.pdb
2452   codeine.pdb
1158   cubane.pdb
895    cyclobutane.pdb
1384   cyclohexanol.pdb
695    cyclopropane.pdb
622    ethane.pdb
690    ethanol.pdb
2396   ethylcyclohexane.pdb
765    glycol.pdb
4209   heme.pdb

```