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得分：29/30

## Assignment5

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sol:

```
[ese-wangs@login02 python_class]$ ln -s data_demo data_demo_link
[ese-wangs@login02 python_class]$ ls
data_demo data_demo_link
[ese-wangs@login02 python_class]$ 
[ese-wangs@login02 python_class]$ echo $USER      echo $HOME,-1
ese-wangs
[ese-wangs@login02 python_class]$ cd data_demo/molecules/
[ese-wangs@login02 molecules]$ touch test.pdb
[ese-wangs@login02 molecules]$ ls
cubane.pdb ethane.pdb methane.pdb octane.pdb pentane.pdb propane.pdb test.pdb

[ese-wangs@login02 data_demo]$ cd data/elements/
[ese-wangs@login02 elements]$ ls -l |grep "^-"|wc -l
103
[ese-wangs@login02 elements]$ 

[ese-wangs@login02 pdb]$ diff -c ethane.pdb ethanol.pdb
*** ethane.pdb 2021-11-24 19:21:39.459368000 +0800
--- ethanol.pdb 2021-11-24 19:21:39.456436000 +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
! TER             9                  1
! 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
! TER            10                  1
! END
```

```
[ese-wangs@login02 data_demo]$ cd writing/data/
[ese-wangs@login02 data_demo]$ 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-wangs@login02 writing]$ du -h data
1.3M    data
[ese-wangs@login02 writing]$
```

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

```
[ese-wangs@login02 data_demo]$ zip -r writing_new.zip ./*
zip warning: name not matched: ./data_demo
adding: creatures/ (stored 0%)
adding: creatures/basilisk.dat (deflated 59%)
adding: creatures/minotaur.dat (deflated 58%)
adding: creatures/unicorn.dat (deflated 63%)
adding: data/ (stored 0%)
adding: data/amino-acids.txt (deflated 42%)
adding: data/pdb/ (stored 0%)
adding: data/pdb/lanoxin.pdb (deflated 76%)
adding: data/pdb/methanol.pdb (deflated 63%)
adding: data/pdb/citronellal.pdb (deflated 71%)
adding: data/pdb/norethindrone.pdb (deflated 73%)
adding: data/pdb/heme.pdb (deflated 74%)
adding: data/pdb/mustard.pdb (deflated 72%)
adding: data/pdb/ammonia.pdb (deflated 57%)
adding: data/pdb/ascorbic-acid.pdb (deflated 73%)
adding: data/pdb/lactic-acid.pdb (deflated 73%)
adding: data/pdb/methane.pdb (deflated 66%)
adding: data/pdb/morphine.pdb (deflated 72%)
adding: data/pdb/piperine.pdb (deflated 71%)
adding: data/pdb/maltose.pdb (deflated 73%)
adding: data/pdb/testosterone.pdb (deflated 73%)
adding: data/pdb/thiamine.pdb (deflated 72%)
adding: data/pdb/quinine.pdb (deflated 77%)
adding: data/pdb/tyrian-purple.pdb (deflated 75%)
adding: data/pdb/tuberin.pdb (deflated 76%)
adding: data/pdb/cinnamaldehyde.pdb (deflated 69%)
adding: data/pdb/vitamin-a.pdb (deflated 74%)
adding: data/pdb/ethylcyclohexane.pdb (deflated 73%)
adding: data/pdb/strychnine.pdb (deflated 73%)
adding: data/pdb/sucrose.pdb (deflated 73%)
adding: data/pdb/pentane.pdb (deflated 74%)
adding: data/pdb/nerol.pdb (deflated 75%)
```

```

[ese-wangs@login02 data_demo]$ ls
creatures  data_demo  north-pacific-gyre  pizza.cfg  writing      writing_new.zip
data       molecules  notes              solar.pdf  writing_new
[ese-wangs@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

```

```

[ese-wangs@login02 data_demo]$ chmod 750 writing_new
[ese-wangs@login02 data_demo]$ ls
creatures  data_demo  north-pacific-gyre  pizza.cfg  writing      writing_new.zip
data       molecules  notes              solar.pdf  writing_new

```

```

[ese-wangs@login02 data_demo]$ history 10
1030  cd python_class/data_demo/
1031  cp -r writing/ writing_new
1032  ls
1033  zip -r writing_new.zip ./
1034  ls
1035  unzip -o writing_new.zip
1036  ls
1037  chmod 750 writing_new
1038  ls
1039  history 10
[ese-wangs@login02 data_demo]$

```

sol2.

在文件内创建一个叫做 loop.sh 的文件，内容如下

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

```
do
```

```
    du -b $pdb
```

```
done
```

```
[ese-wangs@login02 data]$ cd pdb/  
[ese-wangs@login02 pdb]$ chmod 750 loop.sh  
[ese-wangs@login02 pdb]$ ./ loop.sh  
-bash: ./: Is a directory  
[ese-wangs@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  
1064      lactic-acid.pdb  
2562      lactose.pdb  
11193     lanoxin.pdb  
3395      lsd.pdb  
2562      maltose.pdb  
2164      menthol.pdb  
422       methane.pdb  
490       methanol.pdb  
1869      mint.pdb  
2288      morphine.pdb  
2123      mustard.pdb  
1680      nerol.pdb
```