

```
[ese-wangy@login03 ~]$ cd ~
[ese-wangy@login03 ~]$ ls
data_demo exam TEST
[ese-wangy@login03 ~]$ pwd
/work/ese-wangy
[ese-wangy@login03 ~]$ cp -r /work/ese-ouycc/data_demo /work/ese-wangy
cp: cannot overwrite non-directory '/work/ese-wangy/data_demo' with directory '/work/ese-ouycc/data_demo'
[ese-wangy@login03 ~]$ cp -r /work/ese-ouycc/data_demo /work/ese-wangy/
cp: cannot overwrite non-directory '/work/ese-wangy/data_demo' with directory '/work/ese-ouycc/data_demo'
[ese-wangy@login03 ~]$ cd ..
[ese-wangy@login03 work]$ cd ese-ouycc
[ese-wangy@login03 ese-ouycc]$ ls
backup billing_report data_demo exam mpi_demo
[ese-wangy@login03 ese-ouycc]$ cd dataa
-bash: cd: dataa: No such file or directory
[ese-wangy@login03 ese-ouycc]$ cd data_demo
[ese-wangy@login03 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf temp writing
[ese-wangy@login03 data_demo]$ cd..
bash: cd.: command not found...
[ese-wangy@login03 data_demo]$ cd ..
[ese-wangy@login03 ese-ouycc]$ cd ..
[ese-wangy@login03 work]$ cd ese-wangy
[ese-wangy@login03 ~]$ ls
data_demo exam TEST
[ese-wangy@login03 ~]$ rm data_demo
[ese-wangy@login03 ~]$ ls
exam TEST
[ese-wangy@login03 ~]$ cd TEST
[ese-wangy@login03 TEST]$ ls
[ese-wangy@login03 TEST]$ cd ..
[ese-wangy@login03 ~]$ rm TEST
[ese-wangy@login03 ~]$ ls
exam
[ese-wangy@login03 ~]$ cp -r /work/ese-ouycc/data_demo /work/ese-wangy
[ese-wangy@login03 ~]$ ls
data_demo exam
[ese-wangy@login03 ~]$ cd data_demo
[ese-wangy@login03 data_demo]$ ls
creatures data molecules north-pacific-gyre notes pizza.cfg solar.pdf temp writing
[ese-wangy@login03 data_demo]$ cd ..
```

```
[ese-wangy@login03 ~]$ ln -s data_demo_link data_demo
[ese-wangy@login03 ~]$ ls
data_demo exam
[ese-wangy@login03 ~]$ cd data_demo_link
-bash: cd: data_demo_link: No such file or directory
[ese-wangy@login03 ~]$ ln -s data_demo_link data_demo
ln: failed to create symbolic link 'data_demo/data_demo_link': File exists
[ese-wangy@login03 ~]$ rm data_demo_link
mv: cannot stat 'data_demo_link': No such file or directory
[ese-wangy@login03 ~]$ echo $a*
data_demo exam
[ese-wangy@login03 ~]$ cd data_demo/molecules/
[ese-wangy@login03 molecules]$ touch test.pdb
[ese-wangy@login03 molecules]$ ls
cubane.pdb ethane.pdb methane.pdb octane.pdb pentane.pdb propane.pdb test.pdb
[ese-wangy@login03 molecules]$ cd ..
[ese-wangy@login03 data_demo]$ ls
creatures data data_demo_link molecules north-pacific-gyre notes pizza.cfg solar.pdf temp
writing
[ese-wangy@login03 data_demo]$ find data/
data/
data/amino-acids.txt
data/pdb
data/pdb/lanoxin.pdb
data/pdb/methanol.pdb
data/pdb/citronellal.pdb
data/pdb/norethindrone.pdb
data/pdb/heme.pdb
data/pdb/mustard.pdb
data/pdb/logest.sh
data/pdb/count.sh
data/pdb/ammonia.pdb
data/pdb/ascorbic-acid.pdb
data/pdb/lactic-acid.pdb
data/pdb/methane.pdb
data/pdb/morphine.pdb
data/pdb/piperine.pdb
data/pdb/maltose.pdb
data/pdb/testosterone.pdb
data/pdb/thiamine.pdb
data/pdb/quinine.pdb
data/pdb/tyrian-purple.pdb
data/pdb/tuberin.pdb
data/pdb/cinnamaldehyde.pdb
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data/pdb/vitamin-a.pdb
data/pdb/ethylcyclohexane.pdb
data/pdb/strychnine.pdb
data/pdb/sucrose.pdb
data/pdb/pentane.pdb
data/pdb/nerol.pdb
data/pdb/vinyl-chloride.pdb
data/pdb/camphene.pdb
data/pdb/aldrin.pdb
data/pdb/cubane.pdb
data/pdb/ethanol.pdb
data/pdb/cholesterol.pdb
data/pdb/cyclobutane.pdb
data/pdb/tnt.pdb
data/pdb/vanillin.pdb
data/pdb/mint.pdb
data/pdb/pyridoxal.pdb
data/pdb/ethane.pdb
data/pdb/benzaldehyde.pdb
data/pdb/lsd.pdb
data/pdb/print.sh
data/pdb/propane.pdb
data/pdb/cyclohexanol.pdb
data/pdb/glycol.pdb
data/pdb/codeine.pdb
data/pdb/styrene.pdb
data/pdb/cyclopropane.pdb
data/pdb/menthol.pdb
data/pdb/octane.pdb
data/pdb/lactose.pdb
data/morse.txt
data/elements
data/elements/Md.xml
data/elements/In.xml
data/elements/Bk.xml
data/elements/Eu.xml
data/elements/Cd.xml
data/elements/Pb.xml
data/elements/Th.xml
data/elements/Pr.xml
data/elements/Ac.xml
data/elements/As.xml
data/elements/Ca.xml
data/elements/Li.xml

data/elements/H.xml
data/elements/Te.xml
data/elements/Po.xml
data/elements/Fr.xml
data/elements/Y.xml
data/elements/Hg.xml
data/elements/Ce.xml
data/elements/Bi.xml
data/elements/Cu.xml
data/elements/Ti.xml
data/elements/Sm.xml
data/elements/At.xml
data/elements/Rh.xml
data/elements/P.xml
data/elements/F.xml
data/elements/Re.xml
data/elements/No.xml
data/elements/Ru.xml
data/elements/Cf.xml
data/elements/W.xml
data/elements/Pd.xml
data/elements/Pt.xml
data/elements/Kr.xml
data/elements/Sn.xml
data/elements/Au.xml
data/elements/Mg.xml
data/elements/He.xml
data/elements/Pa.xml
data/elements/N.xml
data/elements/Sb.xml
data/elements/Sr.xml
data/elements/Np.xml
data/elements/Zr.xml
data/elements/U.xml
data/elements/Pu.xml
data/elements/Br.xml
data/elements/Nd.xml
data/elements/K.xml
data/elements/Hf.xml
data/elements/Ir.xml
data/elements/Ga.xml
data/elements/Fe.xml
data/elements/Xe.xml
data/elements/Sc.xml

data/elements/Na.xml
data/elements/B.xml
data/elements/Tl.xml
data/elements/Ag.xml
data/elements/Ne.xml
data/elements/S.xml
data/elements/I.xml
data/elements/Cl.xml
data/elements/Nb.xml
data/elements/La.xml
data/elements/Tm.xml
data/elements/Ho.xml
data/elements/Ba.xml
data/elements/Cm.xml
data/elements/Dy.xml
data/elements/Ta.xml
data/elements/Lu.xml
data/elements/Se.xml
data/elements/Al.xml
data/elements/Er.xml
data/elements/Mn.xml
data/elements/Lr.xml
data/elements/Be.xml
data/elements/Si.xml
data/elements/Os.xml
data/elements/Gd.xml
data/elements/Tb.xml
data/elements/O.xml
data/elements/Am.xml
data/elements/Ra.xml
data/elements/Es.xml
data/elements/Mo.xml
data/elements/V.xml
data/elements/Cr.xml
data/elements/Rn.xml
data/elements/Ge.xml
data/elements/Co.xml
data/elements/Tc.xml
data/elements/Pm.xml
data/elements/Rb.xml
data/elements/C.xml
data/elements/Yb.xml
data/elements/Zn.xml
data/elements/Cs.xml

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data/elements/Fm.xml
data/elements/Ni.xml
data/elements/Ar.xml
data/salmon.txt
data/animals.txt
data/sunspot.txt
data/ll2.sh
data/animal-counts
data/animal-counts/animals.txt
data/planets.txt
[ese-wangy@login03 data_demo]$ find . -type f -print | wc -l
203
[ese-wangy@login03 data_demo]$ cd data/pdb/
[ese-wangy@login03 pdb]$ ls
aldrin.pdb          codeine.pdb          ethylcyclohexane.pdb  maltose.pdb  norethindrone.pdb
strychnine.pdb     vanillin.pdb
ammonia.pdb        count.sh             glycol.pdb           menthol.pdb  octane.pdb       styrene.pdb
vinyl-chloride.pdb
ascorbic-acid.pdb  cubane.pdb          heme.pdb             methane.pdb  pentane.pdb      sucrose.pdb
vitamin-a.pdb
benzaldehyde.pdb   cyclobutane.pdb     lactic-acid.pdb      methanol.pdb  piperine.pdb
testosterone.pdb
camphene.pdb       cyclohexanol.pdb    lactose.pdb          mint.pdb     print.sh         thiamine.pdb
cholesterol.pdb    cyclopropane.pdb    lanoxin.pdb          morphine.pdb  propane.pdb      tnt.pdb
cinnamaldehyde.pdb ethane.pdb          logest.sh            mustard.pdb  pyridoxal.pdb    tuberin.pdb
citronellal.pdb    ethanol.pdb         lsd.pdb              nerol.pdb    quinine.pdb      tyrian-purple.pdb
[ese-wangy@login03 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

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> 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
[ese-wangy@login03 pdb]$ cd ..
[ese-wangy@login03 data]$ ls
amino-acids.txt  animal-counts  animals.txt  elements  ll2.sh  morse.txt  pdb  planets.txt
salmon.txt  sunspot.txt
[ese-wangy@login03 data]$ cd ..
[ese-wangy@login03 data_demo]$ ls
creatures  data  data_demo_link  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  temp
writing
[ese-wangy@login03 data_demo]$ cd data_demo/writing/data/
-bash: cd: data_demo/writing/data/: No such file or directory
[ese-wangy@login03 data_demo]$ cd writing/data
[ese-wangy@login03 data]$ cd pdb
-bash: cd: pdb: No such file or directory
[ese-wangy@login03 data]$ ls
LittleWomen.txt  one.txt  two.txt
[ese-wangy@login03 data]$ grep -o 'But she' LittleWomen.txt | wc -l
15

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```

[ese-wangy@login03 data]$ cd ..
[ese-wangy@login03 writing]$ cd ..
[ese-wangy@login03 data_demo]$ ls
creatures  data  data_demo_link  molecules  north-pacific-gyre  notes  pizza.cfg  solar.pdf  temp
writing
[ese-wangy@login03 data_demo]$ du -m data
1    data/pdb
1    data/elements
1    data/animal-counts
1    data
[ese-wangy@login03 data_demo]$ cd ..
[ese-wangy@login03 ~]$ du -m data_demo/data
1    data_demo/data/pdb
1    data_demo/data/elements
1    data_demo/data/animal-counts
1    data_demo/data
[ese-wangy@login03 ~]$ du -m data_demo/data/
1    data_demo/data/pdb

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1    data_demo/data/elements
1    data_demo/data/animal-counts
1    data_demo/data/
[ese-wangy@login03 ~]$ du -k data_demo/data/
409  data_demo/data/pdb
52   data_demo/data/elements
1    data_demo/data/animal-counts
721  data_demo/data/

[ese-wangy@login03 ~]$ ls
data_demo  exam
[ese-wangy@login03 ~]$ cd data_demo
[ese-wangy@login03 data_demo]$ ls
creatures data data_demo_link molecules north-pacific-gyre notes pizza.cfg solar.pdf temp
writing
[ese-wangy@login03 data_demo]$ cp -r writing writing_new
[ese-wangy@login03 data_demo]$ ls
creatures data data_demo_link molecules north-pacific-gyre notes pizza.cfg solar.pdf temp
writing writing_new
[ese-wangy@login03 data_demo]$ zip writing_new.zip writing_new
adding: writing_new/ (stored 0%)
[ese-wangy@login03 data_demo]$ ls
creatures data data_demo_link molecules north-pacific-gyre notes pizza.cfg solar.pdf temp
writing writing_new writing_new.zip
[ese-wangy@login03 data_demo]$ unzip writing_new
Archive: writing_new.zip
[ese-wangy@login03 data_demo]$ ls
creatures data data_demo_link molecules north-pacific-gyre notes pizza.cfg solar.pdf temp
writing writing_new writing_new.zip
[ese-wangy@login03 data_demo]$ chmod drwxr-x--- writing_new
chmod: invalid mode: 'drwxr-x---'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ chmod drwxr-x- writing_new
chmod: invalid mode: 'drwxr-x-'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ chmod drwxr - x --- writing_new
chmod: unrecognized option '---'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ chmod drwxr -x--- writing_new
chmod: cannot access 'drwxr': No such file or directory
[ese-wangy@login03 data_demo]$ chmod drwxr-x--- writing_new
chmod: invalid mode: 'drwxr-x---'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ chmod drwxr-x writing_new

```



```
chmod: invalid mode: 'drwxr-x'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ chmod drwxr-rx writing_new
chmod: invalid mode: 'drwxr-rx'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ chmod drwxr-xr-x writing_new
chmod: invalid mode: 'drwxr-xr-x'
Try 'chmod --help' for more information.
[ese-wangy@login03 data_demo]$ man chmod
[ese-wangy@login03 data_demo]$ chmod +rwx writing_new
[ese-wangy@login03 data_demo]$
[ese-wangy@login03 data]$ vi homework6.sh
```

```
path = ./pdb/
```

```
files = $(ls $path)
for filename in $files
do
    du -k filename
done
```

```
:wq
```