Lecture 4

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| 4.1 | exec 4> myFiles  echo "Here are my current files" >&4  ls -l >&4  exec 4>&- | hhuang66@matrix:~/DPS918/Lecture4> cat 4.1  exec 4> myFiles  echo "Here are my current files" >&4  ls -l >&4  exec 4>&-  hhuang66@matrix:~/DPS918/Lecture4> 4.1  hhuang66@matrix:~/DPS918/Lecture4> ls  4.1 myFiles  hhuang66@matrix:~/DPS918/Lecture4> cat myFiles  Here are my current files  total 8  -rwx------ 1 hhuang66 users 73 May 29 00:55 4.1  -rw------- 1 hhuang66 users 26 May 29 00:56 myFiles |
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| 4.2 | echo "Here are my current files" > myFiles  ls -l >> myFiles | hhuang66@matrix:~/DPS918/Lecture4> cat myFiles  Here are my current files  total 12  -rwx------ 1 hhuang66 users 73 May 29 00:55 4.1  -rwx------ 1 hhuang66 users 60 May 29 00:58 4.2  -rw------- 1 hhuang66 users 26 May 29 2017 myFiles |
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| 4.3 | exec 4< myFiles  read line1 <&4  read line2 <&4  exec 4<&-  echo $line1  echo $line2 | hhuang66@matrix:~/DPS918/Lecture4> 4.3  Here are my current files  total 12 |
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| 4.4 | read line1 < myFiles  read line2 < myFiles  echo $line1  echo $line2 | hhuang66@matrix:~/DPS918/Lecture4> 4.4  Here are my current files  Here are my current files |
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| 4.5 | exec 4<> myFiles  read line1 <&4  read line2 <&4  echo "This will be a new third line" >&4  exec 4<&- | hhuang66@matrix:~/DPS918/Lecture4> 4.5  hhuang66@matrix:~/DPS918/Lecture4> cat myFiles  Here are my current files  total 12  This will be a new third line  May 29 00:55 4.1  -rwx------ 1 hhuang66 users 60 May 29 00:58 4.2  -rw------- 1 hhuang66 users 26 May 29 2017 myFiles  hhuang66@matrix:~/DPS918/Lecture4> |
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| 4.6 | exec 255>&-  cat cars | more  exec 255>&1  cat cars | more |  |
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| 4.7 | exec 6>&1  exec 1>&-  ls  ls > /dev/tty  exec 1>&6 6>&-  ls | hhuang66@matrix:~/DPS918/Lecture4> 4.7  ls: write error: Bad file descriptor  4.1 4.2 4.3 4.4 4.5 4.6 4.7 cars myFiles  4.1 4.2 4.3 4.4 4.5 4.6 4.7 cars myFiles |
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|  | hhuang66@matrix:~/DPS918/Lecture6/testdir> find . -size +50k | xargs ls -ld  drwx------ 2 hhuang66 users 8192 May 31 16:46 .  hhuang66@matrix:~/DPS918/Lecture6/testdir> find . -size +50k | cut -c3- | xargs ls -ld  drwx------ 2 hhuang66 users 8192 May 31 16:46 .  hhuang66@matrix:~/DPS918/Lecture6/testdir> find . -size +1M 2>&1 | wc -l  0  hhuang66@matrix:~/DPS918/Lecture6/testdir> find . -size +1M |& wc -l  0  hhuang66@matrix:~/DPS918/Lecture6/testdir> find . -size +1M 2>&1 >/dev/null | wc -l  0 |  |
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|  | hhuang66@matrix:~/DPS918/Lecture4> name="Josephine Smith"  hhuang66@matrix:~/DPS918/Lecture4> echo $name | read first last  hhuang66@matrix:~/DPS918/Lecture4> echo "First name: $first, Last name: $last"  First name: , Last name:  hhuang66@matrix:~/DPS918/Lecture4> read first last <<< $name  hhuang66@matrix:~/DPS918/Lecture4> echo "First name: $first, Last name: $last"  First name: Josephine, Last name: Smith |  |
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|  | hhuang66@matrix:~/DPS918/Lecture4> { echo "Files in $PWD"; ls -l; } > current\_files  hhuang66@matrix:~/DPS918/Lecture4> cat current\_files  Files in /home/hhuang66/DPS918/Lecture4  total 48  -rwx------ 1 hhuang66 users 73 May 29 00:55 4.1  -rwx------ 1 hhuang66 users 60 May 29 00:58 4.2  -rwx------ 1 hhuang66 users 80 May 29 01:03 4.3  -rwx------ 1 hhuang66 users 66 May 29 01:13 4.4  -rwx------ 1 hhuang66 users 98 May 29 01:17 4.5  -rwxrwxrwx 1 hhuang66 users 56 May 31 19:47 4.6  -rwxrwxrwx 1 hhuang66 users 55 May 31 19:53 4.7  -rwxrwxrwx 1 hhuang66 users 51 May 31 20:23 4.8  -rwxrwxrwx 1 hhuang66 users 141 May 31 20:31 4.9  -rwx------ 1 hhuang66 users 446 May 31 19:49 cars  -rw------- 1 hhuang66 users 40 May 31 2017 current\_files  -rw------- 1 hhuang66 users 183 May 29 01:18 myFiles |  |
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|  | hhuang66@matrix:~/DPS918/Lecture4> cat current\_users  Wed May 31 20:44:45 EDT 2017  Who is on:  zmamedaliyeva pts/0 2017-05-31 20:41 (cpe00fc8daee1c3-cm00fc8daee1c0.cpe.net.cable.rogers.com)  dtnguyen17 pts/1 2017-05-31 17:31 (ckvlon0127w-lp140-01-50-101-94-216.dsl.bell.ca)  hhuang66 pts/2 2017-05-31 19:11 (38.132.35.91)  mclifford1 pts/3 2017-05-31 20:41 (45.72.223.44)  mvdovydtchenko pts/4 2017-05-31 20:42 (10.43.112.25)  athomas-kokkat pts/5 2017-05-31 20:43 (cpea84e3f436bd3-cma84e3f436bd0.cpe.net.cable.rogers.com) |  |
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|  | hhuang66@matrix:~/DPS918/Lecture4> echo "This will be split over multiple \  > lines. Note that the shell will realize \  > that a pipe requires another command, so \  > it will automatically go to the next line" |  > tr '[a-z]' '[A-Z]'  THIS WILL BE SPLIT OVER MULTIPLE LINES. NOTE THAT THE SHELL WILL REALIZE THAT A PIPE REQUIRES ANOTHER COMMAND, SO IT WILL AUTOMATICALLY GO TO THE NEXT LINE |  |
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|  | hhuang66@matrix:~/DPS918/Lecture4> xxx=3  hhuang66@matrix:~/DPS918/Lecture4> [ $xxx -gt 5 ] && echo '$xxx is > 5' || echo '$xxx is <= 5'  $xxx is <= 5  hhuang66@matrix:~/DPS918/Lecture4> xxx=7  hhuang66@matrix:~/DPS918/Lecture4> [ $xxx -gt 5 ] && echo '$xxx is > 5' || echo '$xxx is <= 5'  $xxx is > 5 |  |
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| 4.10 | hhuang66@matrix:~/DPS918/Lecture4> vi 4.10  for animal in lion tiger bear  do  echo $animal  done | hhuang66@matrix:~/DPS918/Lecture4> 4.10  lion  tiger  bear |
|  |  |  |
| 4.11 | hhuang66@matrix:~/DPS918/Lecture4> vi 4.11  animals="lion tiger bear"  for animal in $animals  do  echo $animal  done  ~ | hhuang66@matrix:~/DPS918/Lecture4> 4.11  lion  tiger  bear |
|  |  |  |
| 4.12 | hhuang66@matrix:~/DPS918/Lecture4> vi 4.12  animals="lion tiger bear"  for animal in $(echo $animals | tr ' ' '\n' | grep "i")  do  echo $animal  done | hhuang66@matrix:~/DPS918/Lecture4> 4.12  lion  tiger |
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| 4.13 | hhuang66@matrix:~/DPS918/Lecture4> vi 4.13  for file in $(ls -a $1)  do  echo $file  done  ~ | hhuang66@matrix:~/DPS918/Lecture4> 4.13  .  ..  4.1  4.10  4.11  4.12  4.13  4.2  4.3  4.4  4.5  4.6  4.7  4.8  4.9  cars  current\_files  current\_users  myFiles |
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| 4.14 | for file in $(ls -a $1)  do  ls -ld $file  done | hhuang66@matrix:~/DPS918/Lecture4> 4.14  drwx------ 2 hhuang66 users 4096 May 31 22:00 .  drwxr-xr-x 7 hhuang66 users 4096 May 31 16:19 ..  -rwx------ 1 hhuang66 users 73 May 29 00:55 4.1  -rwxrwxrwx 1 hhuang66 users 54 May 31 21:46 4.10  -rwxrwxrwx 1 hhuang66 users 73 May 31 21:49 4.11  -rwxrwxrwx 1 hhuang66 users 106 May 31 21:51 4.12  -rwxrwxrwx 1 hhuang66 users 46 May 31 21:53 4.13  -rwxrwxrwx 1 hhuang66 users 48 May 31 22:00 4.14  -rwx------ 1 hhuang66 users 60 May 29 00:58 4.2  -rwx------ 1 hhuang66 users 80 May 29 01:03 4.3  -rwx------ 1 hhuang66 users 66 May 29 01:13 4.4  -rwx------ 1 hhuang66 users 98 May 29 01:17 4.5  -rwxrwxrwx 1 hhuang66 users 56 May 31 19:47 4.6  -rwxrwxrwx 1 hhuang66 users 55 May 31 19:53 4.7  -rwxrwxrwx 1 hhuang66 users 51 May 31 20:23 4.8  -rwxrwxrwx 1 hhuang66 users 141 May 31 20:31 4.9  -rwx------ 1 hhuang66 users 446 May 31 19:49 cars  -rw------- 1 hhuang66 users 652 May 31 20:43 current\_files  -rw------- 1 hhuang66 users 505 May 31 20:44 current\_users  -rw------- 1 hhuang66 users 183 May 29 01:18 myFiles |
|  |  |  |
| 4.15 | hhuang66@matrix:~/DPS918/Lecture4> vi 4.15  for file in $(ls -a $1)  do  ls -ld $1/$file  done | hhuang66@matrix:~/DPS918/Lecture4> 4.15  drwxr-xr-x 25 root root 4096 Dec 23 2015 /.  drwxr-xr-x 25 root root 4096 Dec 23 2015 /..  ls: cannot access /4.1: No such file or directory  ls: cannot access /4.10: No such file or directory  ls: cannot access /4.11: No such file or directory  ls: cannot access /4.12: No such file or directory  ls: cannot access /4.13: No such file or directory  ls: cannot access /4.14: No such file or directory  ls: cannot access /4.15: No such file or directory  ls: cannot access /4.2: No such file or directory  ls: cannot access /4.3: No such file or directory  ls: cannot access /4.4: No such file or directory  ls: cannot access /4.5: No such file or directory  ls: cannot access /4.6: No such file or directory  ls: cannot access /4.7: No such file or directory  ls: cannot access /4.8: No such file or directory  ls: cannot access /4.9: No such file or directory  ls: cannot access /cars: No such file or directory  ls: cannot access /current\_files: No such file or directory  ls: cannot access /current\_users: No such file or directory  ls: cannot access /myFiles: No such file or directory |
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| 4.16 | hhuang66@matrix:~/DPS918/Lecture4> vi 4.16  for file in $1/\*  do  echo $file  done | hhuang66@matrix:~/DPS918/Lecture4> 4.16  /bin  /boot  /dev  /etc  /home  /home0  /lib  /lost+found  /media  /mnt  /opt  /proc  /root  /run  /sbin  /selinux  /share  /srv  /swapfile  /sys  /tmp  /usr  /var |
|  |  |  |
| 4.17 | for count in 3 2 1 "BLAST OFF!!!"  do  echo $count  sleep 1  done | hhuang66@matrix:~/DPS918/Lecture4> 4.17  3  2  1  BLAST OFF!!! |
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| 4.18 | for count in $(seq 3 -1 1) "BLAST OFF!!!"  do  echo $count  sleep 1  done | hhuang66@matrix:~/DPS918/Lecture4> 4.18  3  2  1  BLAST OFF!!! |
|  | for count in $(seq 20) "BLAST OFF!!!"  do  echo $count  sleep 1  done | hhuang66@matrix:~/DPS918/Lecture4> 4.18  1  2  3  4  5  6  7  8  9  10  11  12  13  14  15  16  17  18  19  20  BLAST OFF!!! |
|  |  |  |
|  | for count in $(seq 5 15) "BLAST OFF!!!"  do  echo $count  sleep 1  done | hhuang66@matrix:~/DPS918/Lecture4> 4.18  5  6  7  8  9  10  11  12  13  14  15  BLAST OFF!!! |
|  |  |  |
|  | for count in $(seq -10 2 10) "BLAST OFF!!!"  do  echo $count  sleep 1  done | hhuang66@matrix:~/DPS918/Lecture4> 4.18  -10  -8  -6  -4  -2  0  2  4  6  8  10  BLAST OFF!!! |
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|  | for count in {3..1} "BLAST OFF!!!"  do  echo $count  sleep 1  done | hhuang66@matrix:~/DPS918/Lecture4> 4.18  3  2  1  BLAST OFF!!! |
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| 4.19 | for (( count = 3; count >= 1; count-- ))  do  echo $count  sleep 1  done  echo "BLAST OFF!!!" | hhuang66@matrix:~/DPS918/Lecture4> 4.19  3  2  1  BLAST OFF!!! |
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| 4.20 | for args # Note that "args" is a user-defined variable  do  echo $args  done | hhuang66@matrix:~/DPS918/Lecture4> 4.20  hhuang66@matrix:~/DPS918/Lecture4> |
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| 4.21 | for file  do  if [ -f "$file" ]  then  echo "$file is an ordinary file"  elif [ -d "$file" ]  then  echo "$file is a directory"  else  echo "$file is not an ordinary file or directory"  fi  done |  |
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| 4.22 | input=  while [ "$input" != end ]  do  echo -n "Type something: "  read input  [ "$input" != end ] && echo "You typed: '$input'"  done | hhuang66@matrix:~/DPS918/Lecture4> 4.22  Type something: wendy  You typed: 'wendy'  Type something: huang  You typed: 'huang'  Type something: end  hhuang66@matrix:~/DPS918/Lecture4> |
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| 4.23 | while echo -n "Type something: "  read input  [ "$input" != end ]  do  echo "You typed: '$input'"  done | hhuang66@matrix:~/DPS918/Lecture4> 4.23  Type something: wendy  You typed: 'wendy'  Type something: huang  You typed: 'huang'  Type something: end |
|  |  |  |
| 4.24 | while read input < cars  do  echo "Input line is: $input"  done | Input line is: plym fury 77 73 2500  Input line is: plym fury 77 73 2500  Input line is: plym fury 77 73 2500  Input line is: plym fury 77 73 2500  Input line is: plym fury 77 73 2500 |
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| 4.25 | cat cars |  while read input  do  echo "Input line is: $input"  done | hhuang66@matrix:~/DPS918/Lecture4> 4.25  Input line is: plym fury 77 73 2500  Input line is: chevy nova 79 60 3000  Input line is: ford mustang 65 45 17000  Input line is: volvo gl 78 102 9850  Input line is: ford ltd 83 15 10500  Input line is: Chevy nova 80 50 3500  Input line is: fiat 600 65 115 450  Input line is: honda accord 81 30 6000  Input line is: ford thundbd 84 10 17000  Input line is: toyota tercel 82 180 750  Input line is: chevy impala 65 85 1550  Input line is: ford bronco 83 25 9525  Input line is: |
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| 4.26 | lines=0  cat cars |  while read input  do  ((lines++))  echo "Input line #$lines is: $input"  done  echo "$lines lines were read" |  |
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| 4.27 | lines=0  exec 3< cars  while read input <&3  do  ((lines++))  echo "Input line #$lines is: $input"  done  exec 3<&-  echo "$lines lines were read" | hhuang66@matrix:~/DPS918/Lecture4> 4.27  Input line #1 is: plym fury 77 73 2500  Input line #2 is: chevy nova 79 60 3000  Input line #3 is: ford mustang 65 45 17000  Input line #4 is: volvo gl 78 102 9850  Input line #5 is: ford ltd 83 15 10500  Input line #6 is: Chevy nova 80 50 3500  Input line #7 is: fiat 600 65 115 450  Input line #8 is: honda accord 81 30 6000  Input line #9 is: ford thundbd 84 10 17000  Input line #10 is: toyota tercel 82 180 750  Input line #11 is: chevy impala 65 85 1550  Input line #12 is: ford bronco 83 25 9525  Input line #13 is:  13 lines were read |
|  |  |  |
| 4.28 | lines=0  while read input  do  ((lines++))  echo "Input line #$lines is: $input"  done < cars  echo "$lines were read" | hhuang66@matrix:~/DPS918/Lecture4> 4.28  Input line #1 is: plym fury 77 73 2500  Input line #2 is: chevy nova 79 60 3000  Input line #3 is: ford mustang 65 45 17000  Input line #4 is: volvo gl 78 102 9850  Input line #5 is: ford ltd 83 15 10500  Input line #6 is: Chevy nova 80 50 3500  Input line #7 is: fiat 600 65 115 450  Input line #8 is: honda accord 81 30 6000  Input line #9 is: ford thundbd 84 10 17000  Input line #10 is: toyota tercel 82 180 750  Input line #11 is: chevy impala 65 85 1550  Input line #12 is: ford bronco 83 25 9525  Input line #13 is:  13 were read |
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