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CIS220.470
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DISCOVERY EXERCISES

Exercise 1.

[student@COS-047 /]$ whatis ls
ls (1)   - list directory contents
ls (1p)   - list directory contents

Exercise 2.

[student@COS-047 /]$ man date -R
date -R, --rfc-2822
        output date and time in RFC 2822 format. Example: Mon, 07 Aug
        2006 12:34:56 -0600

Exercise 3.

[student@COS-047 /]$ man clear
clear(1)   General Commands Manual   clear(1)

NAME
    clear - clear the terminal screen

SYNOPSIS
    clear

DESCRIPTION
    clear clears your screen if this is possible. It looks in the envi-
    ronment for the terminal type and then in the terminfo database to
    figure out how to clear the screen. Some terminals can clear also
    their scrollback buffer to prevent access to potentially sensitive
    data.   If the terminfo entry for the terminal type contains extended
    capability E3, clear will use it to clear the scrollback buffer.

    clear ignores any command-line parameters that may be present.

SEE ALSO
    tput(1), terminfo(5)

    This describes ncurses version 5.9 (patch 20130511).

                                clear(1)

Exercise 4

[student@COS-047 /]$ cal 2 1992
   February 1992
Su Mo Tu We Th Fr Sa
          1

```
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28 29
```

Exercise 5 (**NOTE:** Although this technically works, is there a shorter way to accomplish the same task?)

```
[student@COS-047 /]$ cal 2 2006; cal 2 2007; cal 2 2008; cal 2 2009; cal 2 2010; cal 2 2011; cal 2 2012; cal 2 2013; cal 2
2014; cal 2 2015;
   February 2006
Su Mo Tu We Th Fr Sa
         1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28

   February 2007
Su Mo Tu We Th Fr Sa
            1  2  3
 4  5  6  7  8  9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28

   February 2008
Su Mo Tu We Th Fr Sa
               1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28 29

   February 2009
Su Mo Tu We Th Fr Sa
 1  2  3  4  5  6  7
 8  9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28


   February 2010
Su Mo Tu We Th Fr Sa
    1  2  3  4  5  6
 7  8  9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28

   February 2011
Su Mo Tu We Th Fr Sa
       1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28
```

```
     February 2012
Su Mo Tu We Th Fr Sa
          1  2  3  4
 5  6  7  8  9 10 11
12 13 14 15 16 17 18
19 20 21 22 23 24 25
26 27 28 29

     February 2013
Su Mo Tu We Th Fr Sa
             1  2
 3  4  5  6  7  8  9
10 11 12 13 14 15 16
17 18 19 20 21 22 23
24 25 26 27 28

     February 2014
Su Mo Tu We Th Fr Sa
                   1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28

     February 2015
Su Mo Tu We Th Fr Sa
 1  2  3  4  5  6  7
 8  9 10 11 12 13 14
15 16 17 18 19 20 21
22 23 24 25 26 27 28
```

Exercise 6

```
[student@COS-047 /]$ clear
[student@COS-047 /]$ man date
date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]
```

Exercise 7

```
[student@COS-047 /]$ date --utc
Tue Feb 20 23:05:24 UTC 2018
```

Exercise 8 (**NOTE:** Permission Denied)

```
[student@COS-047 /]$  cal 2 2018 > thismonth
bash: thismonth: Permission denied
```

Exercise 9 (**NOTE:** Permission Denied, thismonth file was not actually created)

```
[student@COS-047 /]$ cat thismonth
   February 2018
Su Mo Tu We Th Fr Sa
         1  2  3
 4  5  6  7  8  9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28
```

Exercise 10 (**NOTE:** Permission Denied)
```
[student@COS-047 /]$ who > CurrentUser
bash: CurrentUser: Permission denied
[student@COS-047 /]$ cat CurrentUser
student  :0        2018-02-20 13:32 (:0)
student  pts/0     2018-02-20 13:32 (:0)
```

Exercise 11 (**NOTE:** Permissions were already denied to create the files.)
```
[student@COS-047 /]$ cat thismonth; cat CurrentUser;
cat: thismonth: No such file or directory
cat: CurrentUser: No such file or directory
```

Exercise 12 (**NOTE:** Cascading permissions problems)
```
[student@COS-047 /]$ less thismonth; less CurrentUser;
thismonth: No such file or directory
CurrentUser: No such file or directory
[student@COS-047 /]$ more thismonth; more CurrentUser;
thismonth: No such file or directory
CurrentUser: No such file or directory
```

Exercise 13.
```
[student@COS-047 /]$ who > who_info
bash: who_info: Permission denied
[student@COS-047 /]$ less who_info
who_info: No such file or directory
[student@COS-047 /]$ tail -n 12 who_info
tail: cannot open 'who_info' for reading: No such file or directory
```

Exercise 14. (NOTE: Permission denied on favorite_foods file creation)
```
[student@COS-047 /]$ cat > favorite_foods
pizza
ice cream
chips
bacon grease
peanut butter
[student@COS-047 /]$ cat >> favorite_foods
McDonalds
```

any junk food
[student@COS-047 /]$ cat favorite_foods

Exercise 15.

They both show who is logged on, w also shows what they are currently doing.

Exercise 16.

```
[student@COS-047 /]$ who -uH; w;
NAME     LINE      TIME         IDLE       PID COMMENT
student  :0        2018-02-20 13:32   ?       16391 (:0)
student  pts/1     2018-02-20 16:34   .        17446 (:0)
 16:50:50 up 28 days, 42 min,  2 users,  load average: 0.05, 0.10, 0.10
USER    TTY    FROM            LOGIN@   IDLE  JCPU   PCPU WHAT
student  :0     :0              13:32   ?xdm?  8:47m  0.30s gdm-session-wor
student  pts/1  :0              16:34   2.00s  0.08s 22.42s /usr/libexec/gn
```

Exercise 17.

```
[student@COS-047 /]$ who -b;
         system boot  2018-01-23 16:08
```

Exercise 18.

```
[student@COS-047 /]$ who -b;
[student@COS-047 /]$ who -uH; w;
```

Exercise 19.

```
    January             February            March
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
       1  2  3   1  2  3  4  5  6  7   1  2  3  4  5  6  7
 4  5  6  7  8  9 10   8  9 10 11 12 13 14   8  9 10 11 12 13 14
11 12 13 14 15 16 17  15 16 17 18 19 20 21  15 16 17 18 19 20 21
18 19 20 21 22 23 24  22 23 24 25 26 27 28  22 23 24 25 26 27 28
25 26 27 28 29 30 31                  29 30 31

     April               May                June
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
       1  2  3  4         1  2   1  2  3  4  5  6
 5  6  7  8  9 10 11   3  4  5  6  7  8  9   7  8  9 10 11 12 13
12 13 14 15 16 17 18  10 11 12 13 14 15 16  14 15 16 17 18 19 20
19 20 21 22 23 24 25  17 18 19 20 21 22 23  21 22 23 24 25 26 27
26 27 28 29 30        24 25 26 27 28 29 30  28 29 30
             31
     July               August             September
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
       1  2  3  4            1       1  2  3  4  5
```

```
 5  6  7  8  9 10 11    2  3  4  5  6  7  8    6  7  8  9 10 11 12
12 13 14 15 16 17 18    9 10 11 12 13 14 15   13 14 15 16 17 18 19
19 20 21 22 23 24 25   16 17 18 19 20 21 22   20 21 22 23 24 25 26
26 27 28 29 30 31      23 24 25 26 27 28 29   27 28 29 30
            30 31
      October              November              December
Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa  Su Mo Tu We Th Fr Sa
          1  2  3    1  2  3  4  5  6  7          1  2  3  4  5
 4  5  6  7  8  9 10    8  9 10 11 12 13 14    6  7  8  9 10 11 12
11 12 13 14 15 16 17   15 16 17 18 19 20 21   13 14 15 16 17 18 19
18 19 20 21 22 23 24   22 23 24 25 26 27 28   20 21 22 23 24 25 26
25 26 27 28 29 30 31   29 30                 27 28 29 30 31


[student@COS-047 /]$
```

Exercise 20.

```
[student@COS-047 /]$ who -u; date -u;
student  :0         2018-02-20 13:32   ?       16391 (:0)
student  pts/1      2018-02-20 16:34   .        17446 (:0)
Wed Feb 21 01:44:23 UTC 2018
```