**NAME-VEDANT MAHAJAN**

**ROLL NO-75**

**GR NO-11810123**

**DIV-B SY-CS**

**UNIX COMMAND PROBLEMS**

1. Change your password to a password you would like to use for the remainder of the semester

Vedant@LAPTOP-M37D2LLN ~

$ passwd

Old password:

New password:

Re-enter new password:

You may not change the password for Vedant.

Try again.

Vedant@LAPTOP-M37D2LLN ~

2. Display the system’s date.

Vedant@LAPTOP-M37D2LLN ~

$ date

Thu, Aug 20, 2020 1:51:47 PM

3. Count the number of lines in the /etc/passwd file.

4. Find out who else is on the system.

Vedant@LAPTOP-M37D2LLN /etc

$ whoami

Vedant

5. Direct the output of the man pages for the date command to a file named mydate.

Vedant@LAPTOP-M37D2LLN ~

$ man date > mydate.txt

Vedant@LAPTOP-M37D2LLN ~

$ cat mydate.txt

DATE(1) User Commands DATE(1)

NAME

date - print or set the system date and time

SYNOPSIS

date [OPTION]... [+FORMAT]

date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]

DESCRIPTION

Display the current time in the given FORMAT, or set the system date.

Mandatory arguments to long options are mandatory for short options too.

-d, --date=STRING

display time described by STRING, not 'now'

--debug

annotate the parsed date, and warn about questionable usage to stderr

-f, --file=DATEFILE

like --date; once for each line of DATEFILE

-I[FMT], --iso-8601[=FMT]

output date/time in ISO 8601 format. FMT='date' for date only (the default), 'hours',

'minutes', 'seconds', or 'ns' for date and time to the indicated precision. Example:

2006-08-14T02:34:56-06:00

-R, --rfc-2822

output date and time in RFC 2822 format. Example: Mon, 14 Aug 2006 02:34:56 -0600

--rfc-3339=FMT

output date/time in RFC 3339 format. FMT='date', 'seconds', or 'ns' for date and time

to the indicated precision. Example: 2006-08-14 02:34:56-06:00

-r, --reference=FILE

display the last modification time of FILE

-s, --set=STRING

set time described by STRING

-u, --utc, --universal

print or set Coordinated Universal Time (UTC)

--help display this help and exit

--version

output version information and exit

FORMAT controls the output. Interpreted sequences are:

%% a literal %

%a locale's abbreviated weekday name (e.g., Sun)

%A locale's full weekday name (e.g., Sunday)

%b locale's abbreviated month name (e.g., Jan)

%B locale's full month name (e.g., January)

%c locale's date and time (e.g., Thu Mar 3 23:05:25 2005)

%C century; like %Y, except omit last two digits (e.g., 20)

%d day of month (e.g., 01)

%D date; same as %m/%d/%y

%e day of month, space padded; same as %\_d

%F full date; same as %Y-%m-%d

%g last two digits of year of ISO week number (see %G)

%G year of ISO week number (see %V); normally useful only with %V

%h same as %b

%H hour (00..23)

%I hour (01..12)

%j day of year (001..366)

%k hour, space padded ( 0..23); same as %\_H

%l hour, space padded ( 1..12); same as %\_I

%m month (01..12)

%M minute (00..59)

%n a newline

%N nanoseconds (000000000..999999999)

%p locale's equivalent of either AM or PM; blank if not known

%P like %p, but lower case

%q quarter of year (1..4)

%r locale's 12-hour clock time (e.g., 11:11:04 PM)

%R 24-hour hour and minute; same as %H:%M

%s seconds since 1970-01-01 00:00:00 UTC

%S second (00..60)

%t a tab

%T time; same as %H:%M:%S

%u day of week (1..7); 1 is Monday

%U week number of year, with Sunday as first day of week (00..53)

%V ISO week number, with Monday as first day of week (01..53)

%w day of week (0..6); 0 is Sunday

%W week number of year, with Monday as first day of week (00..53)

%x locale's date representation (e.g., 12/31/99)

%X locale's time representation (e.g., 23:13:48)

%y last two digits of year (00..99)

%Y year

%z +hhmm numeric time zone (e.g., -0400)

%:z +hh:mm numeric time zone (e.g., -04:00)

%::z +hh:mm:ss numeric time zone (e.g., -04:00:00)

%:::z numeric time zone with : to necessary precision (e.g., -04, +05:30)

%Z alphabetic time zone abbreviation (e.g., EDT)

By default, date pads numeric fields with zeroes. The following optional flags may follow

'%':

- (hyphen) do not pad the field

\_ (underscore) pad with spaces

0 (zero) pad with zeros

^ use upper case if possible

# use opposite case if possible

After any flags comes an optional field width, as a decimal number; then an optional modi‐

fier, which is either E to use the locale's alternate representations if available, or O to

use the locale's alternate numeric symbols if available.

EXAMPLES

Convert seconds since the epoch (1970-01-01 UTC) to a date

$ date --date='@2147483647'

Show the time on the west coast of the US (use tzselect(1) to find TZ)

$ TZ='America/Los\_Angeles' date

Show the local time for 9AM next Friday on the west coast of the US

$ date --date='TZ="America/Los\_Angeles" 09:00 next Fri'

DATE STRING

The --date=STRING is a mostly free format human readable date string such as "Sun, 29 Feb

2004 16:21:42 -0800" or "2004-02-29 16:21:42" or even "next Thursday". A date string may

contain items indicating calendar date, time of day, time zone, day of week, relative time,

relative date, and numbers. An empty string indicates the beginning of the day. The date

string format is more complex than is easily documented here but is fully described in the

info documentation.

AUTHOR

Written by David MacKenzie.

REPORTING BUGS

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>

Report date translation bugs to <http://translationproject.org/team/>

SEE ALSO

Full documentation at: <http://www.gnu.org/software/coreutils/date>

or available locally via: info '(coreutils) date invocation'

Packaged by Cygwin (8.26-2)

Copyright © 2016 Free Software Foundation, Inc.

License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.

This is free software: you are free to change and redistribute it.

There is NO WARRANTY, to the extent permitted by law.

GNU coreutils 8.26 November 2016 DATE(1)

6. Create a subdirectory called mydir.

Vedant@LAPTOP-M37D2LLN ~

$ ls

date.txt hi.txt mydate.txt

Vedant@LAPTOP-M37D2LLN ~

$ mkdir mydir

Vedant@LAPTOP-M37D2LLN ~

$ ls

date.txt hi.txt mydate.txt mydir

**Working on Online Terminal**

7. Move the file mydate into the new subdirectory.

Vedant@LAPTOP-M37D2LLN ~

$ mv mydate.txt mydir

Vedant@LAPTOP-M37D2LLN ~

$ cd mydir

Vedant@LAPTOP-M37D2LLN ~/mydir

$ ls

mydate.txt

8. Go to the subdirectory mydir and copy the file mydate to a new file called ourdate

Vedant@LAPTOP-M37D2LLN ~/mydir

$ cp mydate.txt ourdate.txt

9. List the contents of mydir.

Vedant@LAPTOP-M37D2LLN ~/mydir

$ ls

mydate.txt ourdate.txt

10. Do a long listing on the file ourdate and note the permissions.

Vedant@LAPTOP-M37D2LLN ~/mydir

$ ls -l ourdate.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:09 ourdate.txt

11. Display the name of the current directory starting from the root.

Vedant@LAPTOP-M37D2LLN ~/mydir

$ pwd

/home/Vedant/mydir

12. Move the files in the directory mydir back to your home directory.

Vedant@LAPTOP-M37D2LLN ~/mydir

$ mv ourdate.txt mydate.txt ../

Vedant@LAPTOP-M37D2LLN ~/mydir

$ cd ..

Vedant@LAPTOP-M37D2LLN ~

$ ls

date.txt hi.txt mydate.txt mydir ourdate.txt

13. Display the first 5 lines of mydate.

Vedant@LAPTOP-M37D2LLN ~

$ head -5 mydate.txt

DATE(1) User Commands DATE(1)

NAME

date - print or set the system date and time

8

14. Display the last 8 lines of mydate.

Vedant@LAPTOP-M37D2LLN ~

$ tail -8 mydate.txt

Packaged by Cygwin (8.26-2)

Copyright © 2016 Free Software Foundation, Inc.

License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.

This is free software: you are free to change and redistribute it.

There is NO WARRANTY, to the extent permitted by law.

GNU coreutils 8.26 November 2016 DATE(1)

15. Remove the directory mydir.

Vedant@LAPTOP-M37D2LLN ~

$ rm -r mydir

16. Redirect the output of the long listing of files to a file named list.

Vedant@LAPTOP-M37D2LLN ~

$ ls -l >>list.txt

Vedant@LAPTOP-M37D2LLN ~

$ cat list.txt

total 24

-rw-r--r-- 1 Vedant None 6363 Aug 20 14:09 date.txt

-rw-r--r-- 1 Vedant None 0 Aug 20 13:30 hi.txt

-rw-r--r-- 1 Vedant None 0 Aug 20 15:17 list.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:08 mydate.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:09 ourdate.txt

17. Select any 5 capitals of states in India and enter them in a file named capitals1. Choose 5

more capitals and enter them in a file named capitals2. Choose 5 more capitals and enter them in a file named capitals3. Concatenate all 3 files and redirect the output to a file named capitals.

Vedant@LAPTOP-M37D2LLN ~

$ cat capital1

cat: capital1: No such file or directory

Vedant@LAPTOP-M37D2LLN ~

$ cat > capital1

Mumbai Chennai Hyderabad Bangalore Jaipur

Vedant@LAPTOP-M37D2LLN ~

$ cat > capital2

Itanagar Patna Imphal Shillong Kohima

Vedant@LAPTOP-M37D2LLN ~

$ cat > capital3

Chandigarh Raipur Gangtok Bhopal Ranchi

Vedant@LAPTOP-M37D2LLN ~

$ cat capital1 capital2 capital3 > capitals

Vedant@LAPTOP-M37D2LLN ~

$ cat capitals

Mumbai Chennai Hyderabad Bangalore JaipurItanagar Patna Imphal Shillong Kohima

Chandigarh Raipur Gangtok Bhopal Ranchi

18. Concatenate the file capitals2 at the end of file capitals.

Vedant@LAPTOP-M37D2LLN ~

$ cat capital2>capitals

19. Give read and write permissions to all users for the file capitals.

Vedant@LAPTOP-M37D2LLN ~

$ chmod +rw capitals

Vedant@LAPTOP-M37D2LLN ~

$ ls -l

total 29

-rw-r--r-- 1 Vedant None 41 Aug 20 15:19 capital1

-rw-r--r-- 1 Vedant None 39 Aug 20 15:22 capital2

-rw-r--r-- 1 Vedant None 39 Aug 20 15:22 capital3

-rw-r--r-- 1 Vedant None 39 Aug 20 15:24 capitals

-rw-r--r-- 1 Vedant None 6363 Aug 20 14:09 date.txt

-rw-r--r-- 1 Vedant None 0 Aug 20 13:30 hi.txt

-rw-r--r-- 1 Vedant None 272 Aug 20 15:17 list.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:08 mydate.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:09 ourdate.txt

Vedant@LAPTOP-M37D2LLN ~

20. Give read permissions only to the owner of the file capitals. Open the file, make some

changes and try to save it. What happens ?

Vedant@LAPTOP-M37D2LLN ~

$ chmod o+r capitals

Vedant@LAPTOP-M37D2LLN ~

$ ls -l

total 29

-rw-r--r-- 1 Vedant None 41 Aug 20 15:19 capital1

-rw-r--r-- 1 Vedant None 39 Aug 20 15:22 capital2

-rw-r--r-- 1 Vedant None 39 Aug 20 15:22 capital3

-rw-r--r-- 1 Vedant None 39 Aug 20 15:24 capitals

-rw-r--r-- 1 Vedant None 6363 Aug 20 14:09 date.txt

-rw-r--r-- 1 Vedant None 0 Aug 20 13:30 hi.txt

-rw-r--r-- 1 Vedant None 272 Aug 20 15:17 list.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:08 mydate.txt

-rw-r--r-- 1 Vedant None 6363 Aug 20 15:09 ourdate.txt

21. Create an alias to concatenate the 3 files capitals1, capitals2, capitals3 and redirect the output to a file named capitals. Activate the alias and make it run.

Vedant@LAPTOP-M37D2LLN ~

$ alias merger="cat capital1 capital2 capital3 > capitals"

Vedant@LAPTOP-M37D2LLN ~

$ merger

Vedant@LAPTOP-M37D2LLN ~

$ cat capitals

Mumbai Chennai Hyderabad Bangalore JaipurItanagar Patna Imphal Shillong Kohima

Chandigarh Raipur Gangtok Bhopal Ranchi

22. Find out the number of times the string “the” appears in the file mydate.

Vedant@LAPTOP-M37D2LLN ~

$ grep -o 'the' mydate.txt|wc -l

27

23. Find out the line numbers on which the string “date” exists in mydate.

Vedant@LAPTOP-M37D2LLN ~

$ egrep -n 'date' mydate.txt|wc -l

27

24. Print all lines of mydate except those that have the letter “i” in them.

Vedant@LAPTOP-M37D2LLN ~

$ egrep -v "i" mydate.txt

DATE(1) User Commands DATE(1)

NAME

SYNOPSIS

date [OPTION]... [+FORMAT]

DESCRIPTION

-d, --date=STRING

--debug

2006-08-14T02:34:56-06:00

-R, --rfc-2822

--rfc-3339=FMT

-r, --reference=FILE

-s, --set=STRING

FORMAT controls the output. Interpreted sequences are:

%A locale's full weekday name (e.g., Sunday)

%B locale's full month name (e.g., January)

%d day of month (e.g., 01)

%D date; same as %m/%d/%y

%e day of month, space padded; same as %\_d

%F full date; same as %Y-%m-%d

%h same as %b

%H hour (00..23)

%I hour (01..12)

%j day of year (001..366)

%k hour, space padded ( 0..23); same as %\_H

%l hour, space padded ( 1..12); same as %\_I

%m month (01..12)

%N nanoseconds (000000000..999999999)

%q quarter of year (1..4)

%S second (00..60)

%t a tab

%Y year

'%':

EXAMPLES

$ date --date='@2147483647'

DATE STRING

AUTHOR

REPORTING BUGS

SEE ALSO

25. List the words of 4 letters from the file mydate.

Vedant@LAPTOP-M37D2LLN ~

$ grep -E '^.{4}$' mydate.txt|wc -l

1

26. List 5 states in north east India in a file mystates. List their corresponding capitals in a file

mycapitals. Use the paste command to join the 2 files.

Vedant@LAPTOP-M37D2LLN ~

$ paste mystate.txt mycapitals.txt

28. Count the number of people logged in and also trap the users in a file using the tee command.

Vedant@LAPTOP-M37D2LLN ~

$ users|wc -w

0

29. Convert the contents of mystates into uppercase.

Vedant@LAPTOP-M37D2LLN ~

$ trb '[:lower:]' '[:upper:]' < mystates.txt

30. Create any two files & display the common values between them.

Vedant@LAPTOP-M37D2LLN ~

$ comm capitals.txt capitals1.txt