

CS1007 lecture #3 notes

tue 29 jan 2002

<http://www.columbia.edu/~cs1007>

today:

- news
- quick and dirty UNIX
- quick and dirty emacs
- creating/editing/compiling/running your first Java program
- homework #1
- submitting homework #1

news.

- Prof Sklar is out of town today, so no office hours
- make-up office hours: tomorrow, Wed 30 Jan, 2.30pm-4.30pm

files in UNIX.

- hierarchical file system
- example:

```

cunix_disk/eis2003/
|
+-----+-----+
|               |               |
classes/        mail/          public_html/
|               |               |
+-----+-----+
|               |               |
cs1007/         cs1003/         index.html
|               |               |
hello.java     hello.c
hello.class
```

quick and dirty UNIX.

- commands have options or parameters or switches
- *switches* start with “_”
- some commands...
 - man
 - pwd
 - cd
 - ls
 - mkdir
 - rmdir
 - cp
 - mv
 - rm
 - chmod

man — get help (display manual page).

man — display manual pages (get help!)

man man — display manual page for the *man* command

man ls — display manual page for the *ls* command

man -k file — list all commands with the keyword *file*

unix> man pwd

PWD(1)

FSF

PWD(1)

NAME

pwd - print name of current/working directory

SYNOPSIS

pwd [OPTION]

DESCRIPTION

Print the full filename of the current working directory.

...

pwd — print working directory.

```
unix> pwd  
/home/sklar/teaching/cs1007/slides
```

cd — change working directory.

```
unix> pwd  
/home/sklar/  
unix> cd classes  
unix> pwd  
/home/sklar/classes
```

ls — list the files in the current directory

ls -aF — list all files and show their file types

```
unix> ls -aF
./
../
.cshrc
classes/
mail/
hello.java
```

ls -l — list files in long format

```
unix> ls -l hello.java
-rw-r--r--  1 sklar  faculty   187 Jan 23 10:45 hello.java
```

mkdir — make (create) a directory

```
unix> ls -aF
./
../
.cshrc
classes/
mail/
hello.java
unix> mkdir junk
unix> ls -aF
./
../
.cshrc
classes/
junk/
mail/
hello.java
```

rmdir — remove (delete) a directory.

```
unix> ls -aF
./
../
.cshrc
classes/
junk/
mail/
hello.java
unix> rmdir junk
unix> ls -aF
./
../
.cshrc
classes/
mail/
hello.java
```

cp — copy a file.

```
unix> ls -aF
./
../
.cshrc
classes/
mail/
hello.java
unix> cp hello.java hi.java
unix> ls -aF
./
../
.cshrc
classes/
mail/
hello.java
hi.java
```

mv — move (rename) a file.

```
unix> ls -aF
./
../
.cshrc
classes/
mail/
hello.java
unix> mv hello.java howdy.java
unix> ls -aF
./
../
.cshrc
classes/
mail/
howdy.java
```

rm — remove (delete) a file.

```
unix> ls -aF
./
../
.cshrc
classes/
mail/
hi.java
howdy.java
unix> rm hi.java
unix> ls -aF
./
../
.cshrc
classes/
mail/
howdy.java
```

chmod — change file mode

.

- 9 characters: - uuugggooo
- WHO: u = user, g = group, o = other users, a = all users (u + g + o)
- WHAT: r = read, w = write, x = execute
- MODE: + = allow, - = don't allow

```
unix> ls -l hi.java
-rwxr-xr-x  1 sklar  faculty    187 Jan 23 10:45 hi.java
unix> chmod a+w hi.java
unix> ls -l hi.java
-rwxrwxrwx  1 sklar  faculty    187 Jan 23 10:45 hi.java
```

quick and dirty *emacs*.

unix> ejava hello.java

or

unix> emacs -nw hello.java

Ctrl-B	move cursor Back
Ctrl-F	move cursor Forward
Ctrl-P	move cursor to Previous line
Ctrl-N	move cursor to Next line
Ctrl-D	Delete character under cursor
Ctrl-K	Kill (delete) to end of line
Ctrl-Y	Yank back (undelete) killed text
Ctrl-X Ctrl-S	Save the file
Ctrl-X Ctrl-C	eXit emacs
Ctrl-H	Help
Ctrl-G	Gets you out of trouble!

your first Java application: source code.

```
file name = hello.java

/*-----
EISklar, 23-Jan-02, hello.java

    This class demonstrates output from a Java application.
    -----*/

public class hello {
    public static void main ( String[] args ) {
        System.out.println( "hello world!\n" );
    } // end of main()
} // end of class hello()
```

homework #1.

DUE THU JAN 31!!!

- create a Java application that outputs a recipe to the screen
- compile and run it
- submit it electronically

⇒ description available on web page:

<http://www.columbia.edu/~cs1007/hw1.html>