

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

cs1007-spring2002-skar-lect03 1

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

- 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

cs1007-spring2002-sklar-lect03

2

- cs1007-spring2002-sklar-lect03

```

files in UNIX.

• hierarchical file system
• example:

cunix_disk/eis2003/
|
+-----+-----+
|               |               |
classes/         mail/         public_html/
|               |               |
+-----+-----+   simon       index.html
|               |   suzanne
cs1007/         cs1003/         jen
|               |   alex
hello.java     hello.c
hello.class

```

- cunix disk/eis2003/



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

cs107-spring2002-sklar-lect03

4

- cs1007-spring2002-sklar-lect03

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.

...

cs1007-spring2002-sklar-lect03

5

pwd — print working directory.

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

cs1007-spring2002-sklar-lect03

6

cd — change working directory.

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

cs1007-spring2002-sklar-lect03

7

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
```

cs1007-spring2002-sklar-lect03

8

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
```

cs1007-spring2002-sklar-lect03

9

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
```

cs1007-spring2002-sklar-lect03

10

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
```

cs1007-spring2002-sklar-lect03

11

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
```

cs1007-spring2002-sklar-lect03

12

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
```

cs1007-spring2002-sklar-lect03

13

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
```

cs1007-spring2002-sklar-lect03

14

### 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!         |

cs1007-spring2002-sklar-lect03

15

### 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()
```

cs1007-spring2002-sklar-lect03

16

## 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>