Built in utility commands

Syntax;

utility_name**[**-a**][**-b**][**-c *option_argument*]

[-d|-e**][**-f*option_argument*]**[***operand*...**]**

The utility_name is followed by options, option-arguments, and operands.

Elements within square brackets are optional!

http://pubs.opengroup.org/onlinepubs/009696699/basedefs/xbd_chap12.html

Finding help for utility commands

- $ man *[command]* – *online documentation*
- $ info *[command]* – hypertext linked information
- $ apropos *[command] – search 'whatis' database for strings*
- $ ./[command] --help 'optional' argument to invoke help
- $ help [bash built in]

e.g. ls –help | less

Google *search using keywords like 'tutorial, usage, howto'*

Searching for content on the file system

- ***locate*** database to find filenames quickly

e.g. $ locate “*.R” ## locate R files

- ***find*** to search filenames

e.g. $ find / –name “*.R$” –print

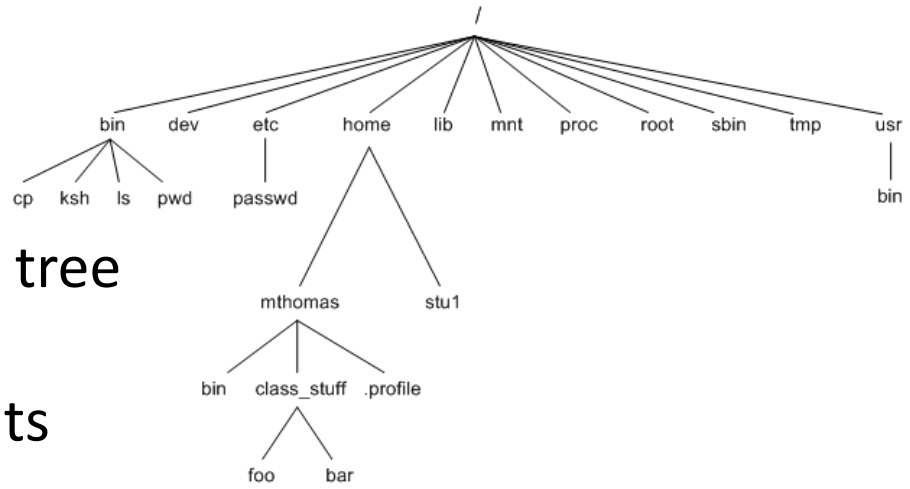
- ***grep*** to print lines matching a pattern
- $ alias grepc

alias grepc='grep --color=auto -iRnH‘

Searching recursively for content within files

*e.g. $ grepc “^library” *.R*

Unix filesystem



Relationship between
directories and files is a rooted tree

Utility '***ls'*** lists directory contents

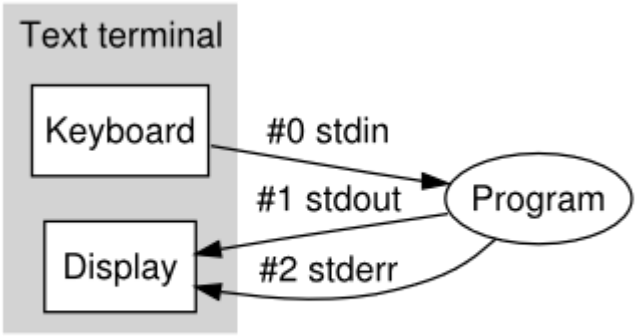
Wildcards "**** ? []"*** etc are
alpha numerically sorted as;
[0-9A-Za-z] *(numbers before capitals before lower case)*

The utility ***'cd'*** changes the current directory to ***dir***

Standard input, output, and error

Text from the keyboard is;
stdin (standard input)

Program displays text outout to;
Stdout (standard output)



If a program crashes debugging information goes to;
stderr (standard error)

Note :output may be from stdout or stderr, must use redirection of output streams to distinguish
e.g. Redirect stderr to a file
$ command1 2> file1