LECTURE NOTES IN CIS300

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SECTION 1: BASH

REFERENCES

- "Basic UNIX commands" [link]
- "Bash Guide for Beginners" [link]
- "Advanced Bash-Scripting Guide" [link]

LECTURE 2: FILES & DIRECTORIES

GETTING STARTED

Access Shell terminal in your computer

- Option 1: Web terminal
  - webhttp://www.webminal.org/terminal/
- Option 2: Setting up Ubuntu through VirtualBox
  - TA will talk about this.

DIRECTORIES

- List files and directories: `ls`
  - `ls ~`, `ls .`, `ls`
  - `ls /`
  - `ls -al`
- Enter a directory: `cd`
  - `cd`, `cd ~`, `cd ..`
  - `cd /`
- Print the current pathname: `pwd`
- Create a directory: `mkdir`

BASIC FILE MANAGEMENT

- Create a file: `touch`
  - `touch file_a`
- Move a file (change file name): `mv`
  - `mv file_a file_b`
- Copy a file: `cp`
  - `cp file_a file_b`
- Remove a file: `rm`
  - `rm file_a`

BASIC FILE MANAGEMENT (2)

- Show the content of a file: `cat`, `more`
  - `cat file_a`
  - `more file_a`: use q to quit, / to search
  - Write text to a file: `echo >>`
    - `echo "Alice Bob" >> file_a`
    - `echo "Alice" >> file_b`,
      `echo "Alice" >> file_c`
- Show difference between files: `diff`
  - `diff file_a file_b`
- Show the count of lines/words/chars a file: `wc`
  - `wc file_a`

EXERCISE 2.1

1. Run command `ls -a /`. Copy and paste (C&P) the printout on BB.
2. Run command `cat file_b`. C&P printout on BB.
3. Create a text file named `file_d.txt` and put there the following string: `Charlie is a student`. Run `cat file_d.txt`.
   - C&P the list of commands and their printout on BB
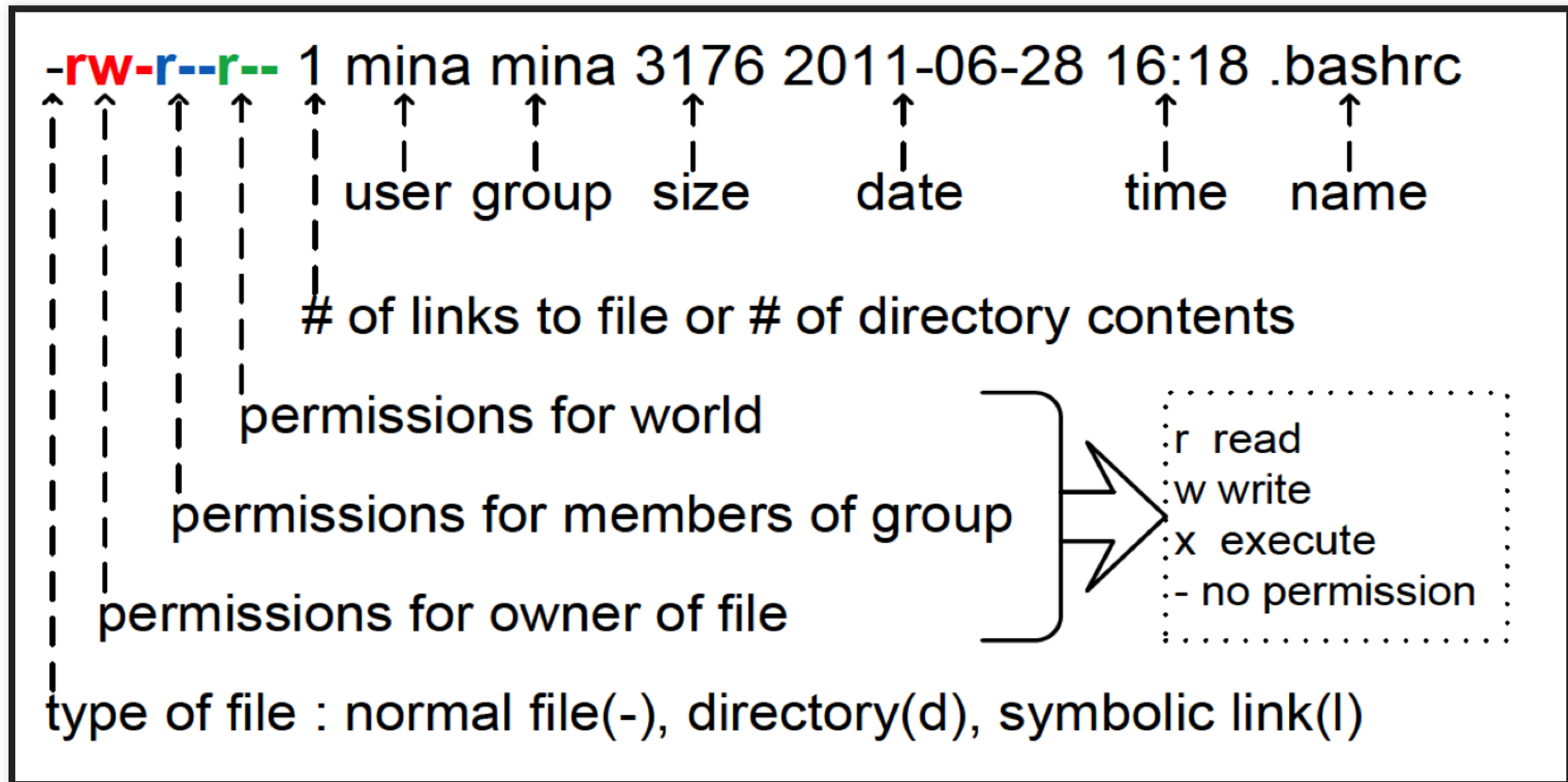
FILE PERMISSION

- chmod: permission bits
  - `chmod o+r file_a`: add read permission to everyone

FILE PERMISSION (2)

- chmod flags: u,g,o,a; +,-,=; x,w,r

Options	Definitions
u	Owner
g	Group
o	Other
a	All (same as ugo)
x	Execute
w	Write
r	Read
+	Add permission
-	Remove permission
=	Set permission

FILE PERMISSION (3)

-rw-r--r-- 1 mina mina 3176 2011-06-28 16:18 .bashrc

user group size date time name

# of links to file or # of directory contents

permissions for world

permissions for members of group

permissions for owner of file

r read
w write
x execute
- no permission

type of file : normal file(-), directory(d), symbolic link(l)

ls -al

EXERCISE 2.2

1. Run command `chmod o-r file_a; cat file_a`. C&P the printout on BB.
2. Design the command to make a file read-only. C&P your command on BB.