

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](#)]

GETTING STARTED

Access Shell terminal in your computer

- Option 1: Web terminal
 - [<http://www.webminal.org/terminal/>]
- Option 2: Setting up Ubuntu through VirtualBox
 - TA will talk about this.

LECTURE 2: FILES & DIRECTORIES

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`
 - `mkdir dir_a`

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 the count of lines/words/chars a file: `wc`
 - `wc file_a`
- Show difference between files: `diff`
 - `diff file_a file_b`

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 directory `dir_b` under `dir_a` and enter it. C&P the commands on BB.
4. 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

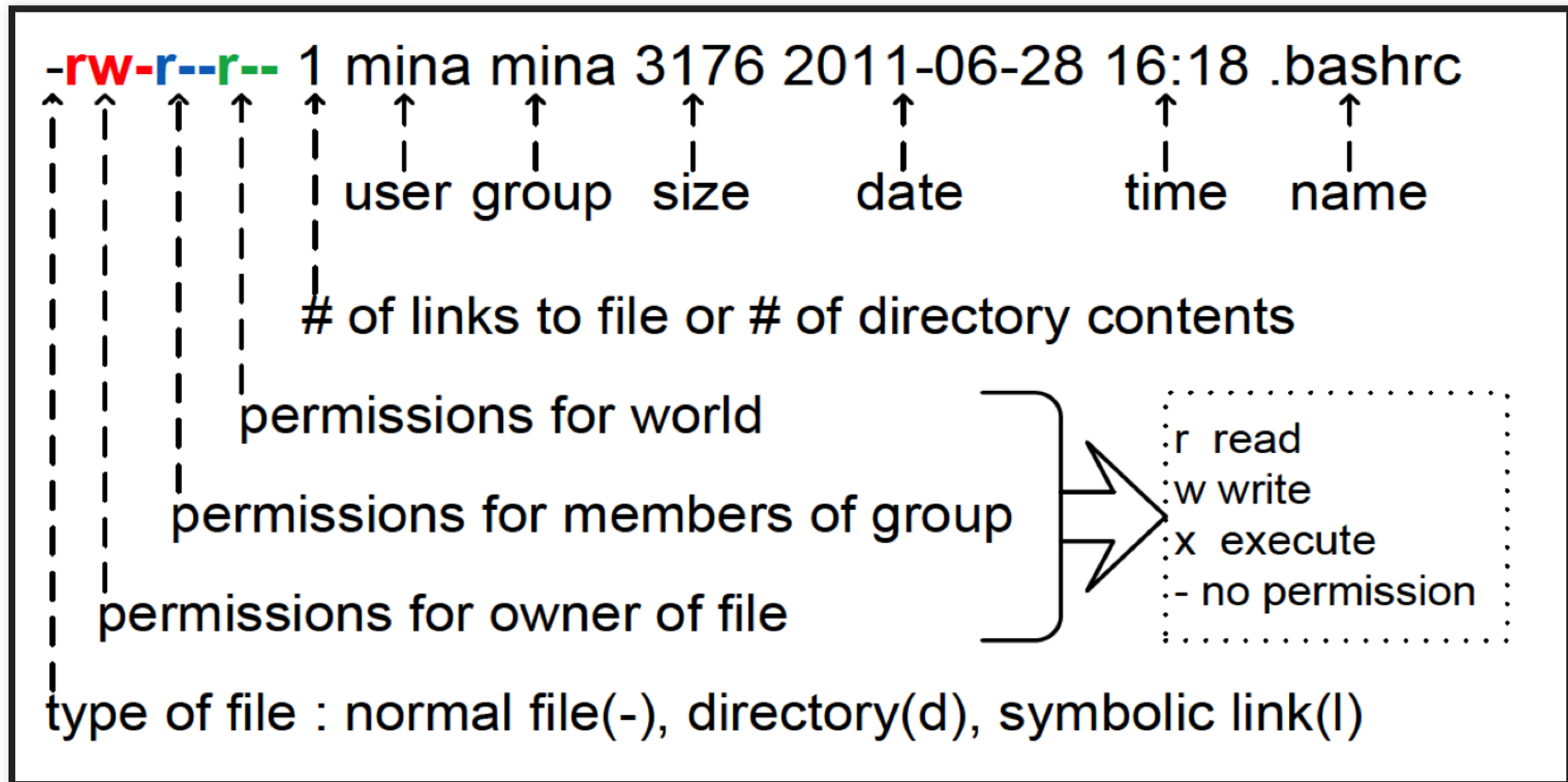
- `chmod`: permission bits
 - `chmod o+r file_a`: add read permission to everyone

FILE PERMISSION (2)

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

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

FILE PERMISSION (3)



`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.