

THE UNIVERSITY OF WESTERN ONTARIO

DEPARTMENT OF COMPUTER SCIENCE
LONDON CANADA

Software Tools and Systems Programming (Computer Science 2211a)

LAB 5

The week of October 11-17, 2020

Due date: Monday, October 19, 2020, 11:55 pm Eastern Daylight Time
(Tuesday, October 20, 2020, 3:55 am Greenwich Mean Time)

The purpose of this lab is to get experience with Unix file and directory permissions and to understand the effect of permission combinations of a directory and the files it contains.

1. In this question, we assume that your current working directory is `~/courses/cs2211a/Labs/lab5`. The `ls` command in this exercise is `/usr/bin/ls`.

- (a) Create a directory named *dir*. Create two files in *dir* with names *f1* and *f2*. Set *f1*'s permission to **000** and *f2*'s permission to **600**. Could we execute the following command successfully and why?

- `cp f1 f3`

- (b) Set *dir*'s permissions to **r - - - - -**. Make sure that you understand the reason for the results of the following commands.

- `ls dir`
- `ls -l dir`
- `cd dir`
- `vi dir/f1` – modify and then save
- `vi dir/f2` – modify and then save
- `rm dir/f1`
- `rm dir/f2`

- (c) Set *dir*'s permissions to **r - x - - - -**. There is no change of the permissions for *f1* and *f2*. Repeat (b).

- (d) Set *dir*'s permissions to **r w - - - - -**. There is no change of the permissions for *f1* and *f2*. Repeat (b).

- (e) Set *dir*'s permissions to **- w x - - - -**. There is no change of the permissions for *f1* and *f2*. Repeat (b).

For lab 5, you should have the following files in directory `~/courses/cs2211a/Labs/lab5`.

- **Lab_SubmissionForm.txt**
Fill with the required information.
- **lab5_answer.pdf**
For each command from 1(a) to 1(e), answer with yes or no to the question of if the command will be successful. In both cases, explain why.
- **lab5_1b.script**
Use **script lab5_1b.script** to capture screen session when typing each of the seven commands for 1(b).
- **lab5_1c.script**
Use **script lab5_1c.script** to capture screen session when typing each of the seven commands for 1(c).
- **dir**

Change your current working directory to `~/courses/cs2211a/Labs`. Create file **YourUserName_lab5.tar.gz** and submit this file for lab 5. (For detailed information, please check *CS2211a Lab Submission Guidelines* and lab 2).

The following information can be found in *CS2211a Lab Submission Guidelines*. From next lab, we may not repeat these information.

For **lab5_answer.pdf**, the following six lines should appear on the first page.

CS2211a 2020

Lab number

Your name

Your student number

Your UWO User Name

Date Completed

For **lab5_1b.script** and **lab5_1c.script**, the first three commands should be:

date

who am i

pwd