

THE UNIVERSITY OF WESTERN ONTARIO
DEPARTMENT OF COMPUTER SCIENCE
LONDON CANADA

Software Tools and Systems Programming
(Computer Science 2211a)

ASSIGNMENT 1

Due date: Tuesday, September 25, 2018, 11:55 PM

1. Answer the following questions.
 - a. What is an operating system?
 - b. What is a kernel of an operating system?
 - c. What is a shell in Unix?
2. For this question, we assume that you are in directory `~/Courses/CS2211a/Asns/asn1` (and, of course, all the directories along the path exist). In this directory, create two directories, `dir0` and `dir1` and two files `df0` and `df1`. In `dir0` create a file `dir0`. What command do you use to create a directory? What command do you use to create a file?
3. Answer the following questions for the use of **ls** command. And then demonstrate your answers by typing the appropriate command and capture the screen with **script** command assuming that you are in directory `~/Courses/CS2211a/Asns/asn1`. For this question, please use `/usr/bin/ls` in `compute.gaul.csd.uwo.ca`.
 - a. What option(s) should we use if we want to display permission information?
 - b. What option(s) should we add to **ls di*** to display permission information of `dir0` and `dir1` but not their contents?
 - c. What is the result of **ls *** and why?
 - d. What is the result of **ls **** and why?
4. Answer the following questions for the use of **find** command. And then demonstrate your answers by typing the appropriate command and capture the screen with **script** command assuming that you are in `~/Courses/CS2211a`.
 - a. What option(s) should we use if we want to display recursively all the directory names?
 - b. What option(s) should we use if we want to display recursively all the files (but not directory) whose name start with `d`?
 - c. What option(s) should we use if we want to display all the files that have been written (created or modified) within the last 48 hours? (hint: check `mtime` option of `find` command)