CSC 104 Assignment 1, Winter 2012

Due by the end of Thursday February 2, 2012; no late assignments without written explanation.

Academic offence warning: This assignment must be completed individually, and you must comply with the rules at the end of the course information sheet. Please read those rules before beginning work on this assignment.

Some frequently-asked questions might be posted on the course web page.

1. In your home directory, create a directory named ‘‘q1’’ (short for ‘‘question 1’’). Inside that, create a subdirectory named ‘‘xyz’’. Inside *that*, create a file named ‘‘file1’’. This file can have any contents.

When you have set up the above directory structure, run the following command (type it at a command prompt):

```
/u/ajr/104/checkq1
```

This will check whether you have satisfied the requirements of this question, and will store the answer for grading purposes. (Note the use of a path name to specify a file in ajr’s home directory. Path names *beginning* with a slash (not just having slashes in the middle) are *absolute* path names, which start from the ‘‘root directory’’ rather than from your current working directory.)

You can run this command as many times as you like; the last one (before the end of Feb 2) is what counts.

2. How would you view this ‘‘file1’’ file from the command-line from your home directory using a relative path name (*not* beginning with a slash)? Put an appropriate ‘‘cat’’ command inside a file named ‘‘q2’’ and submit this file for grading with the command

```
submit -c csc104h -a a1 q2
```

Note that you can check this command by executing this file as a shell script: type ‘‘sh q2’’ to test it, and you should see the contents of your ‘‘file1’’ file you created in question 1.

3. Examine the directory /u/csc104h/winter/pub. It contains subdirectories (directories inside the directory). Look through the subdirectories and find a directory whose name is your logname (e.g. of the form c2abcdef). Within this directory there is a file entitled ‘‘q3solution’’. Submit this file from the command line.

For example, if you found this directory in the directory /u/csc104h/winter/pub/beep/bop, and your CDF logname is c2abcdef, then you would type

```
submit -c csc104h -a a1 /u/csc104h/winter/pub/beep/bop/c2abcdef/q3solution
```

4. Use the ALPINE e-mail program on CDF to send a test message as follows. (See lab2 for instructions.) Send any e-mail message to the following exact address:

```
104grading@dgp.toronto.edu
```

You will not receive a reply. You will get a point for this assignment item if the mail is successfully sent. A typo in the e-mail address will hopefully cause you to receive a ‘‘bounce’’ message, so check your CDF e-mail later, and if it bounces, fix your error and try again. However, a typo is not guaranteed to generate a bounce message. Enter the address correctly.

For this assignment, you must send the mail from your CDF account, and you must do so using ALPINE. The e-mail message can have any subject and any message contents.

5. This question builds on the ‘‘shell script’’ programming from lab two. Write a shell script whose interaction looks like this, where ‘%’ is the prompt in the terminal window and ‘‘sh addone 23’’ is what the user typed:

```
% sh addone 23
You like the number 23
One more than that is
24
```

Call your file ‘‘addone’’ and submit it.

6. This question asks you to observe a few things about or on the CDF lab computers. Print the form supplied on the course web page for answering this question, fill in your name and CDF logname (account name), write your answers in pen, and put the page in the drop-box labelled ‘‘CSC 104’’ in BA 2220.

(over)

6, continued

a. What is the name of any one ‘‘spreadsheet’’ program available on the CDF computers?

b. Who wrote the MIDI sound player ‘‘KMid’’?

c. To what country does the author of the text editor ‘‘gvim’’ urge you to send charitable donations?

d. The CDF computers are running ‘‘Linux’’, which is a public reimplementation of the UNIX operating system which is ‘‘free’’ in certain legal and philosophical senses. Linux-based software systems are distributed by many different organizations. Determine the name of the linux distribution running on the CDF computers.
(If you are interested, you can read about the ‘‘free software movement’’ at

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http://www.gnu.org/philosophy/shouldbefree.html
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and related documents.)

e. Examine the cables on the back of the system unit. One of the cables is a security cable which loops through the monitor and the system unit; this cable is not electrical. Most of the *electrical* cables are black but one of them is white.† Where is the other end of this white cable? (Please do not open or disconnect anything when investigating the answer to this question!)

f. There are four *other* electrical cables plugged in to the back of the system unit (the cables themselves are black, although some of them have other-coloured bits right at the two ends of the cable). Where are the other ends of these cables (where do they go)? (List all four answers.)

7. To check the list of files submitted for assignment one under your CDF account, you can type the command:

```
submit -l -c csc104h -a a1
```

(You also have to send the e-mail message to 104grading@dgp.toronto.edu (question 3 above), and to submit your answer to question 6 on paper in the drop box.)

You can re-do any of the ‘‘submit’’ commands by adding the ‘‘-f’’ option to the submit command line, at the beginning of the command (right after the word ‘‘submit’’) as a separate word (i.e. with spaces between it and any other word). Example:

```
submit -f -c csc104h -a a1 q2
```

Whatever version of each file you submit last (but before the end of February 2nd) is the one that counts.

8. Always remember to log out before leaving the computer.

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† There are some computers with grey ones, although most have white ones. Actually, a couple of the computers have this particular type of cable in blue, or even black... For this question, please simply find a computer which has either a white or grey cable in the back. (Which is almost all of them.)