Laboratory One

SOFTENG206 Semester 2 2013

"Introduction to using Linux"'

Introduction

This Lab exercise will get you up-and-running with Linux, using the command line, and thinking about Assignment One. Please keep a journal while going through any labs in this course.

Using the Terminal and getting to know common commands

1. Launch an instance of GNOME Terminal, your command line interface to PC. See if you can make multiple tabs. What happens when you drag-and-drop a file from Nautilus into a terminal window?
2. Familiarise yourself with basic commands to move around directories.
3. Create a new text file containing the numbers 1-5, one on each line, and in random order. Save your file as: random.txt.
4. Try to use the program `sort` to sort the numbers in the file number into descending numeric order and write the results to standard out. Hint: running the command `man sort` will bring up the manual page, press the '`q`' key to quit.
5. Modify your command in step 4, so that the results redirects to descending.txt.
6. Use the `cat` command to print out the file contents in random.txt. If your are unsure what cat does, use `man cat` and '`q`' to quit.
7. In step 4, you gave `sort` a file as a command-line argument. Sort also accepts data from standard input. Use a pipe to feed data through standard input into sort.
8. Run `man touch` to see what this command does and create two empty files called randomTwo.txt and randomThree.txt.
9. Run `man grep` to see what this command does. Use this in combination with `ls` to list all files in this directory which has the word 'random' in its filename.

Getting started with Assignment 1 Task 1

1. Download and save the assignment files (and extract them if necessary) onto your Linux computer.
2. In your terminal, navigate to where DataTask.c resides.
3. Compile the program it by running command:

   ```
   $ gcc -o DataTask DataTask.c
   ```

4. Create three text files in this directory:
   (a) alice.contact with content 4975632
   (b) bob.contact with content 7541234
   (c) charlie.contact with content 1239999
5. And run the program to get back a file 'data.txt'. Run `cat data.txt` to see the sorted file contents.

Getting started with Assignment 1 Task 2

1. Assuming you have downloaded (and extracted) your assignment files..
2. In your terminal, navigate to where FileTask.c resides.
3. Compile the program it by running command:

   ```
   $ gcc -o FileTask FileTask.c
   ```

4. Read and understand the program then run the program (with correct arguments) to create a contact in the current directory with name 'dan' with phone number 1234567
5. What happens when you try to create another contact 'dan' with phone number 7654321?