

COMP2001/COMP2401

Introduction to System Programming

Summer 2012, Assignment 1

Deadline : May 17, 2012, at 12:00 (noon), submitted via WebCT

Objectives:

This assignment will introduce you to get familiar with Linux commands, and a simple programming in C under Unix. You **MUST** submit your solutions through WebCT in accordance with the rules specified in the course outline. Answers to all questions should be organized neatly into a single easy-to-follow report document. Include a readme.txt file in your WebCT submission, if there are any special instructions for the TA. Your submission format could be: Microsoft Word (.doc) or PDF for the first part. For the rest part, you should submit the source code and any other files required to compile and run your program. **[Total 10 marks]**

Description:

Part I [3 marks]: UNIX commands

State a Linux command which can be used for the following tasks

- obtain help about a Linux command:
- change file permissions:
- list the files in a directory:
- make a directory:
- copy a file:
- find current working directory

Part II [7 marks]: C programming

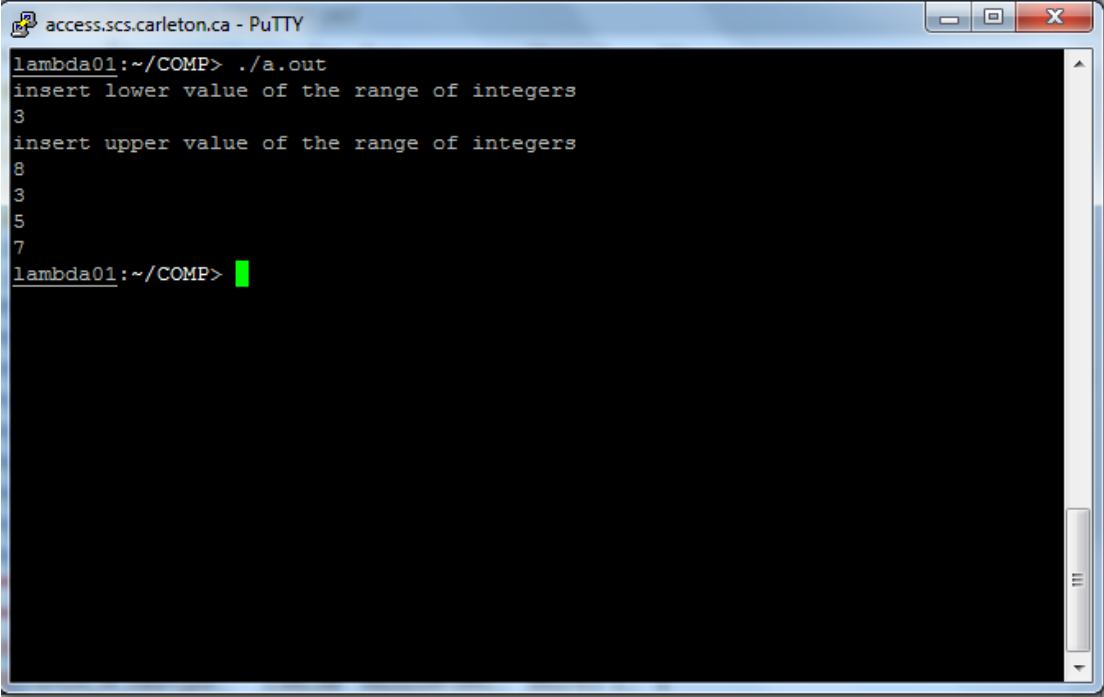
Write a program in C for sorting out odd integers in between the given range of the integers by using the **continue** statement. It first gets the inputs and then displays the relevant outputs to the console as follow. (The TA should be able to compile and run your program under Unix)

Requirement:

Your WebCT submission must include one code file and one file readme.txt stating how to compile your program.

Style marks will be given in full only if:

- the code is legible with sufficient comments, proper indentation and intuitive variable names
- the input and output on the screen are well formatted

A screenshot of a PuTTY terminal window titled 'access.scs.carleton.ca - PuTTY'. The terminal shows a user at the 'lambda01' prompt in the directory '~/COMP' running './a.out'. The program outputs two prompts: 'insert lower value of the range of integers' and 'insert upper value of the range of integers'. The user enters '3' for the lower value and '8' for the upper value. The program then outputs '3', '5', and '7' on separate lines. The terminal ends with the prompt 'lambda01:~/COMP>' and a green cursor.

```
lambda01:~/COMP> ./a.out
insert lower value of the range of integers
3
insert upper value of the range of integers
8
3
5
7
lambda01:~/COMP>
```

Marking scheme:

1. Submission

- You must follow all the instructions **exactly**, or you will lose marks

2. Deductions

- 1 marks if the assignment is marked **Late** in WebCT (submitted between 12:00 noon and 12:30 PM)
- 10 marks if the assignment is marked **Missed** in WebCT (submitted after 12:30 PM)
- 2 marks if the code does not compile, if any submitted files are missing or corrupt or in the wrong format, or if the program consistently crashes
- 0.5 marks for missing comments or other bad style (non-standard indentation, improper funct/var names, etc)

3. Bonus Marks

- Up to 2 extra marks are available for fun and creative additional features, such as error checking for input values