CSC 2500: Unix Programming Lab

Lab 02 – Redirecting Input and Output

# General Instructions

Using your book and previous lecture material, fill out this assignment sheet. **Use red text to signify your answers.** This assignment corresponds with chapter 5 of your textbook. You should utilize online resources to answer these questions as well.

# Submission Instructions

To submit, **change the name in the header** and save this document as a PDF. Attach your PDF document to the iLearn dropbox. Additionally, you will need to attach **a text log file of your lab session**. You can do this by:

1. Starting your session with the following command: **script <username>.txt**
   1. Make sure to replace the **<username>** in the command with your username.
2. Ending your session with the **exit** command.
   1. This will end your session and save your commands to the file in step 1.

# Lab Questions

1. (30) The **echo** builtin copies its arguments to standard output which, by default, bash directs to the screen. Write the command to redirect standard output (Sobell, page 138) of **echo** to write a short message (e.g., “Hi there”) to a file and then use **cat** to display the contents of the file.

* echo “Hi there” > sample.txt
* cat sample.txt

1. Do the following:
   1. (10) Write the command to redirect standard output of **cat** to create a file named **days** that holds the names of the days of the week in chronological order, one per line. Do not redirect standard input to **cat**; it will come from the keyboard. Remember to press CTRL-D on a line by itself to exit from **cat**.

Cat > Days.txt

Days

Monday

Tuesday

Wedsneday

Thursday

Friday

Saturday

Sunday

Control - D

* 1. (10) Use **cat** to read the days file and send it to standard output, through a pipeline, to standard input of the sort (Sobell, pages 58 and 145) utility. The result will be a list of days in alphabetical order.

Cat Days.txt | sort

* 1. (10) Replace sort in the preceding command with **grep** (Sobell, page 56) with an argument of (uppercase) T. The result will be a list of days that have an uppercase T in their names in chronological order.

Cat Days.txt | grep T

Tuesday

Thursday

* 1. (10) Create a filter (Sobell, page 146) by repeating the preceding command but sending standard output of **grep** through a pipeline to standard input of sort. The result will be a list of days that have an uppercase T in their names in alphabetical order.

Cat Days.txt | grep T | sort

Thursday

Tuesday

1. (20) Produce a long listing of the **/etc**, **/usr/bin**, and **/sbin** directories, sending the output to a file and running the command in the background (Sobell, page 148).

ls -l /etc /usr /bin /sbin > sample.txt &

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