

# COMPSCI 1XC3 C01,C03

## Assignment 1

(40 points)

1. (3 points) Use **ls** command to find the 5 newest text files (.txt) under the current directory tree, and print the results to screen.

2. (3 points) Write a command to only show the second line of a file named *example.txt* to the screen.

3. (2 points) What is the difference between a *redirection* and a *pipeline*?

4. (5 points) Use **grep** to find all the lines that contain postal code in file user.txt and print the results to screen. Postal code format is described as below:

alphabet	number	alphabet	number	alphabet	number
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alphabet	number	alphabet	space	number	alphabet	number
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5. (3 points) Use **tar** command to create an archive file for the contents in directories d1, d2, and d3 with gzip compression. The name of the archive file should be my.gz, and it should be able to be decompressed using gzip -d. As the archive is created, explicitly print its content to the screen.

6. (3 points) Create an alias with the name **bkd**, that creates a backup directory called *bkupDir* under the current working directory, and then change the working directory to *bkupDir*.

7. Write a command that uses **find** to

a) (5 points) find all files in your account named *my.out* or *lxc3* and move them to the **myExeDir** directory under the parent of the current working directory. You may assume that you have root privileges for this question.

b) (4 points) find all files larger than 5 MB in your user home directory tree, redirect the result to *large.txt*

c) (4 points) change all directory permissions under your current directory tree so that only you can read, write or run them.

8. (4 points) Write a command that uses **cat** to display the contents in the file *book.txt*, and use **sed** to replace all the occurrences of the word 'shoot' with the word 'nice' before printing on screen

9. (4 points) Use **echo** command to add greeting messages before displaying the result of **ls -l** to the current user on the screen, e.g.

Dear bopo, the result of 'ls -l' under the current working directory is:

```
-rw-r--r--@ 1 bopo  staff  2328366 Sep  1  2021 img1.pdf
-rw-r--r--@ 1 bopo  staff  1241507 Oct 10  2021 img2.pdf
-rw-r--r--  1 bopo  staff   699243 Jan 16  2022 img3.pdf
```

Use \$USER to adapt to different users.