**CSc 3320: Systems Programming**

Fall 2021

Homework

# 1: Total points 100

Submission instructions:

1. Create a Google doc for each homework assignment submission.
2. Start your responses from page 2 of the document and copy these instructions on page 1.
3. Fill in your name, campus ID and panther # in the fields provided. If this information is missing in your document TWO POINTS WILL BE DEDUCTED per submission.
4. Keep this page 1 intact on all your submissions. If this *submissions instructions* page is missing in your submission TWO POINTS WILL BE DEDUCTED per submission.
5. Each homework will typically have 2-3 PARTS, where each PART focuses on specific topic(s).
6. Start your responses to each PART on a new page.
7. If you are being asked to write code copy the code into a separate txt file and submit that as well.
8. If you are being asked to test code or run specific commands or scripts, provide the evidence of your outputs through a screenshot and copy the same into the document.
9. Upon completion, download a .PDF version of the document and submit the same.

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**Part 1**

1. Unix is a family of operating systems, and Linux is a family of open source Unix based operating systems

2. The pipe mechanism is ‘|’. It takes the output from the first command and uses it as input for the second command. Example: grep “hello” print.txt | wc -l

3. /bin – contains binary executeables, /dev – contains device files, /boot – contains required itmes for boot process, /usr – contains all user binaries and their libraries, /ect – contains all system files, /mnt – mount point for devices, /sbin – system binary executables, /var – contains variable data

4. Multitask- preforms multiple tasks at once, Multi-user- able to be used by multiple users at once

5. ‘-‘ means it is a file, ‘rwx’ in the first group means the user can read write and execute, ‘r-x’ for the second and third group mean the users group and the public can read and execute and not write chmod 755 file

6. For directories, read means the user can view the contents of a directory, write means a user can create a file in the directory, and execute means the user can enter the directory

**Part 2 a**

7. Abaa, aaaa, aa : the matched string should begin and end with a with a or b occurring zero or more times between the a’s

8. Abc, a : match a string starting with a and ending in bc zero or one times

9. dn, find : match a string beginning with any character and ending in i, n, or d zero or more times

10. hello, yes : match a string beginning with any character a-z one or more times and ending in any character a-z

11. a+b+c+d , a+z : match a string beginning with any character a-z followed by + and any character a-z one or more times

12. abcb, adc : match a string beginning with a followed by any character, then ending in b or c one or more times

13. ab9, ah3 : match a string starting with a followed by any character ending with any number 0-9

14. what?, hey! : match a string starting with any character a-z one or more times and ending in ., ?, or !

15. hey! A, c? F : match a string starting with any character a-z one or more times followed by ., ?, or ! followed by a whitespace character zero or mores times ending in a character from A-Z

16. very bad weather, very very cool good weather : match a string starting with very one or more times followed by cool zero or one time followed by either good or bad ending in weather

17. -543, 9876 : match a string starting with – zero or no times then followed by any number 0-9 one or more times

18. -9.6, 787.7647 : match a string starting with – zero or no times then followed by any number 0-9 zero or more times followed by . zero or one time ending in any number 0-9

**Part 2 b**

19. http:\/\/[a-z]\*\.edu

20. \+?[0-9]\*

21. (\/[a-z]\*)\*(.[a-z]\*)?

22. [\_.]([\d\D])\*

23. \(?[0-9]\*\)?(-?[0-9]\*){2}

**Part 3**

24.

Step 1 – created homework\_instructions.txt



Step 2 – moved to homeworks directory



Step 3 –



Step 4 –

