Assignment #1

Date Due: October 11, 2019

Total: 100 marks

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1. (30 marks) UNIX Commands

   For the following of each Unix commands describe what it does. You are not expected to run these commands. In fact, some may not run in your environment. Use your textbook/slides and online documentation/manual as information resources. (4 marks each)

   a) `$ cat tiger > cat giant tiger`

   b) `$ chmod 750 *.c`

   c) `$ file afile`

   d) `$ chown shapovalov:external \ /users/files/external/shapovalov`

   e) `$ more -f +64 lion`

   f) `$ ls -aF`

   g) `$ cp -i ?*.? Mark`

   h) `$ rm -r progs/C libs/C`

2. (20 marks) Editing files

   (a) Outline vi commands for these tasks (3 marks each):

   - copy the current line and the next one of the file into a buffer.
   - add some new text, starting on the next line.
   - place a "#" at the start of the first 10 lines of the file.
   - insert another file, say someFile, into your current document in the current position
   - delete the next seven words.
   - replace all occurrences of "dizzy" with "sober" in the file.
   - in the midst of your editing work, make a new directory, say CS2820-$id, from the home directory, where $id is an environment variable containing your student id.

3. (5 marks) When was released the first version of UNIX OS, and how was it distributed.

4. (5 marks) Name few versions of UNIX and few Linux distributions.

5. (40 marks max) Create with vi a file myfirstvifile.txt containing the following text(14 lines) (3 marks):

```
Lorem ipsum dolor sit amet, consectetuer adipiscing elit.
Morbi nunc enim, vehicula eget, ultricies vel, nonummy in, turpis.
Duis luctus posuere erat. Nam est diam, blandit dapibus, facilisis id,
```

```
dapibus a, tellus. Maecenas convallis fringilla mauris. Morbi non elit.
Proin tristique massa eu nibh. Aenean dictum purus vitae turpis ornare consequat.
Nullam sed lorem. Fusce non arcu nec tellus ultricies eleifend.
In consectetuer, risus quis posuere ullamcorper, odio nisl hendrerit urna, eu
ultrices neque tellus vel pede. Duis eget leo sit amet elit bibendum facilisis.
Vivamus orci. Fusce eu nunc a massa interdum viverra.
In hac habitasse platea dictumst. In mi augue, sodales et, vehicula sit amet,
porttitor id, urna. In adipiscing. Phasellus porta dignissim erat.
Suspendisse ac dolor. Fusce elit lorem, porttitor at, bibendum ac,
ultrices et, est.
Etiam lorem neque, tempor vel, pretium quis, porttitor sit amet, magna.
```

Make sure that your vi editor is in show mode(3 marks); this way you can capture the actions performed on the file(s).

Perform the following tasks (3 marks each), using vi editor and show all your work in a file called run.txt (3 marks) :

(a) Open a new line before the current line 10 and enter your student ID, followed by your name, followed by "1234+4567".

(b) replace all occurrences of "eget" by "necessitatibus" in the whole file.

(c) replace all occurrences of double s's by one s.

(d) save the file with a new name text1.txt and *quit*.

(e) using vi concatenate myfirstvifile.txt with text1.txt, but lines in text1.txt should be numbered. ***You should have an empty line between the two files***. All spaces at the beginning of each line should be eliminated. The result should be stored in text2.txt.

(f) in the new file text2.txt replace all occurrences of "lorem" between lines 21 and 30 with "dolorem".

(g) On line 25 replace each sequences of alphabetic characters and white spaces with the + sign

(h) Replace the arithmetic expression obtained with its result.

(i) repeat line 17 of the file text2.txt x times, where x is the number obtained at step 5h – you should type this number and not extract it from the file.

(j) insert line numbers for each line in the file, and add exactly one space between the line number and the text. Save and exit as text3.txt.

(k) Produce a new file text4.txt that has at the beginning the number of words of text2.txt, followed by the file text3.txt. Files are separated by a line of at least 15 of "="'s.

(l) edit file text4.txt using vi as follows:

- from line 500 replace first 1000 occurrences of word "vehicula" by word "car",

- replace the next 1000 occurrences by word “hybrid car”, and all others to the end of the file by “electric car“. save your file as text5.txt and exit.

(m) Capture at least one screen from each of the previous steps and store them in run.txt.

6. (5 marks) Create a compressed archive of all your work, including the work on previous exercises. and submit the compressed archive to the moodle server. The file should be named like MyNameCS2820A1.tar.gz.