Unix/Linux Tutorial for Beginners
Session VII – Util commands

Mandatory exercises

1. Which commands can be used to clear the screen?

    (a) Ctrl + L

    (b) free

    (c) bright

    (d) clear

2. What does the command join do?

    (a) The command *join* merges two files by their names.

    (b) The command *join* combines two files by their common column.

    (c) The command *join* is equivalent to the command *cat*. It merges 2 files.

3. Which statement is correct?

    (a) The command *history* provides the emergence story of Linux, written by Linus Torvalds

    (b) The command *join* works only on files which are sorted by their common column.

    (c) The command *column -t* can be used to write tab delimited files

4. Compare the two files ~/data/others/Peters shoppingsList.txt and ~/data/others/Annas shoppingsList.txt using the method diff. Are there any differences between the two files? Are there other possibilities to display the differences? Hint: use *man diff* for help.

    (a) There are 5 differences between the files. There is no other way to display the differences between the files.

    (b) Yes, there are 3 differences between the files. The differences can be also displayed by using the option *-y*.

    (c) There are no differences between the two files. Both commands, *diff* and *diff -y*, can be used to display differences between two files

5. What does the $>$ and $<$ symbols in the output of the *diff* command mean?

    (a) both, $<$ and $>$ show differences in the first file

    (b) $<$ shows the lines of the first file which are different from the second, while $>$ shows the lines of the second file which are different from the first file.

    (c) $<$ shows differences in the second file, while $>$ shows differences in the first file

6. Use wget and the following urls `ftp://ftp.sra.ebi.ac.uk/vol1/fastq/SRR494/SRR494009/*` and `ftp://ftp.sra.ebi.ac.uk/vol1/fastq/SRR494/SRR494099/SRR494099.fastq.gz` (note: each link should be one line) to download data in FASTQ format. The data should be saved in the directory ∼/myLinuxProject/data/raw/fastq/.

7. Uncompress the 3 downloaded FASTQ files in the same folder using the adequate command. Which command is the correct one?

    (a) decompres *.gz

    (b) tar cfvz *.gz

    (c) gzip -d *.gz

    (d) bzip2 -d *.gz

8. Remove all new lines (' \n') from the file ∼/data/others/Annas_shoppingsList.txt. Which command is correct?

    (a) cat Annas_shoppingsList.txt | sed -e 's/\n//'

    (b) cat Annas_shoppingsList.txt | tr -d ' \n'

    (c) cat Annas_shoppingsList.txt | cut -d $' \n' -f 1-4

9. Replace all r characters from the file ∼/data/others/Peters_shoppingsList.txt with uppercase characters. E.g. celery becomes celeRy. Which command is not correct?

    (a) cat Peters_shoppingsList.txt | tr 'r' 'R'

    (b) cat Peters_shoppingsList.txt | replace 'r' 'R'

    (c) cat Peters_shoppingsList.txt | sed 's/f/F/g'