CHALMERS

UNIVERSITY OF TECHNOLOGY

ASSIGNMENT #1

Introduction to Linux

List of commands needed for this assignment:
`cat`; `cd`; `cal`; `clear`; `cp`; `date`; `echo`; `exit`; `find`; `grep`; `less`; `ls`; `man`; `mkdir`; `mv`; `pwd`; `rm`; `sort`; `tar`; `tail`; `touch`; `uname`; `users`; `wget`; `who`; `whoami`

1. Interacting with the shell

Start a terminal and type the following command:

```
echo "This is the best course in the world!"
```

While typing, try the following: Ctrl+A, Ctrl+D, Ctrl+E, Ctrl+L.

What is the difference between `clear` and Ctrl+L ?

Exit from the terminal.

2. RTFM

Find a command to print the current date on the screen and to print a calendar view of this month.

On what day of the week were you born? How many days were there in September 1752?

3. Simple file manipulation

Create a new file called *bestcourse* using `touch`. Add text to the file with

```
echo "This is the best course in the world" > bestcourse
```

Print the content of the file on the terminal screen.

Create a directory *mycourses* and move the file *bestcourse* into this directory.

Go into the *mycourses* directory (`cd`). Execute the `pwd` command; what does this command do?

Rename the file *bestcourse* to *bestcourseever* and copy this file to a new file called *verybestcourseever*. Check that the contents of both files are equal.

4. System information

Find the following information about the system you are working on:

1) What is your username?

2) Which other users are logged on?

3) When did the other users last use the system?

4) What is the name/version of the Linux kernel you are working on?

5. Downloading files, archives

Download the following file and place it in your home directory:

https://www.chalmers.se/en/departments/physics/research/cmt/tassin/Documents/assignment1.tar

The file is a tar archive, a very common file format in Linux (also known as "tarball"). Unpack the archive in your home directory. Make a sketch of the directory/file tree obtained by unpacking the archive.

6. Slightly less simple file manipulation

1) Download the following file:

https://www.chalmers.se/en/departments/physics/research/cmt/tassin/Documents/loremipsum

This file contains a large amount of "lorum ipsum" text. Extract the lines containing the phrase "Nunc euismod" out of the file. How many times does this phrase appear in the file?

Can you browse through the text? Can you print the last 11 lines of the file on the terminal?

2) Consider again the files and directories extracted in problem no. 5. Find a command to list all files (not directories) in the tree.

Now use the same command to print the content of every file in the tree.

The text in each file contains a number. Print the text in every file in a way such that the numbers are sorted. What sentence do you read now?

Delete the file `coursename`. Print again the text sorted. How has the sentence now changed?

NOTE: *Always think twice before executing rm or rmdir. Linux is totally obedient to you and will execute your wishes with no questions asked! Remember to always use tab completion to avoid mistakes.*