# Worksheet 1

**General Instructions**: Do not copy-paste from this file to terminal. If you have doubts, contact the instructors or TAs. And **do not panic**!

**Assignments**

1. First task

    (a) Login and open a terminal.

    (b) Create a folder named ws01.

    (c) Open gedit and type your name. In the next line type your ID number.

    (d) Save the content of the file as first-file.txt within the created folder.

    (e) Close gedit.

    (f) Open a terminal. Go into the folder ws01.

    (g) Check the content of your file (use cat).

    (h) Come back to your home folder.

    (i) Close terminal

2. Second task

    (a) Open a terminal.

    (b) Go into the folder ws01.

    (c) Create a folder named A1 within the folder ws01.

    (d) Go into the folder A1.

    (e) Create sub-folders A, B and C within this folder.

    (f) Go into A.

    (g) Create a text file (A.txt) with your name written once.

    (h) Go into B.

    (i) Create a text file (B.txt) with your name written twice (into two lines).

    (j) Go into C.

    (k) Create a text file (C.txt) with your name written thrice (into three lines).

    (l) You should now be in folder C.

    (m) Close the terminal.

3. Third task

    (a) Note: files in any arbitrary folder can be accessed by using path. Path is a list of folders separated by /. Path could be absolute or relative. Absolute path of your subfolder C is
    /ms/your-user-id/ws01/A1/C

    (b) Go into C.

    (c) Check absolute path by using pwd

    (d) Without leaving this folder you may check the content of the file B.txt by using relative path. To do this, use cat ../B/B.txt

    (e) Check the content of A.txt by using relative path.

4. Fourth task

    (a) Open a terminal.

    (b) Go to your home folder.

    (c) List all your files in home folder using `ls`.

    (d) Get detailed list of all your files in home folder using `ls -lh`.

    (e) Note: three often used commands to deal with files are `cp -i`, `mv -i` and `rm -i`.

    (f) Note: `cp -i file1 file2` copies the content of the `file1` to `file2` (similar as copy and paste).

    (g) Note: `mv -i file1 file2` moves `file1` to `file2` (similar as cut and paste).

    (h) Note: `rm -i file1` erases (deletes) `file1`.

    (i) Go to folder `A`.

    (j) Delete file `A.txt`.

    (k) Go to folder `B`.

    (l) Without leaving this folder, delete `C.txt`.

    (m) Copy `B.txt` to `C.txt` within folder `C`.

    (n) Move `B.txt` to folder `A`.

    (o) Go back to `ws01`

    (p) Check contents of all sub-folders using `ls -R`

    (q) Check detailed contents of all sub-folders using `ls -lR`

5. Fifth task

    (a) Open a terminal.

    (b) Within `ws01` create three subfolders, namely, `abc`, `def`, `ghi`

    (c) Create a file in `abc` having name `abc.txt` with your name written twice.

    (d) Create a file in `def` having name `d.txt` with your id number written once.

    (e) Download the file lorem-ipsum.txt from WeLearn course page and save in the folder `def`.

    (f) Create a hidden file in `ghi` having name `.ghi` with your id number written twice.

    (g) Go back to folder `ws01`

    (h) Check the content of each file created until now without leaving the folder.

    (i) Check the size of each file including the hidden file (use `ls -alR`).

6. Sixth task

    (a) Go to folder `def`

    (b) Check the size of the file `lorem-ipsum.txt`

    (c) Compress the file `lorem-ipsum.txt`

    (d) Check the size of the compressed file

    (e) Uncompress the file

    (f) Check the size of the file `d.txt`

    (g) Compress the file `d.txt`

(h) Check the size of the compressed file

(i) Are the results expected?

7. Seventh task

(a) Create an archive of today's work by compressing the entire folder ws01. The name of the archive should be ws01-your-idnumber.tgz

(b) Create a folder `test` at your home folder

(c) Copy the archive in `test`

(d) Uncompress the archive

(e) Compare the file lorem-ipsum.txt in the uncompressed archive with the original file using the command `diff path-to-new/lorem-ipsum.txt path-to-old/lorem-ipsum.txt`

(f) Are they same? Please report to the TAs/Instructor.