

Exercise 1

General instructions: Follow these instructions, as they facilitate the revision of the exercises. The review takes into account that you always use the requested file names. Send **only** the files requested in the exercise. Return your answers to your assistant as an e-mail entitled **TilaI,2017**. If you have not programmed before, choose only one of the programming languages (**octave/python**), and do not change it during the course. If you are sure that you want to try both languages, you can of course do the exercises of both languages. However return the exercises to your assistant in one language only.

- **Exercise 1a (linux, emacs)**

Your user name is **username**. Create with the command **mkdir** the directories

```
/home/username/ankkalinna/  
/home/username/ankkalinna/aku/  
/home/username/ankkalinna/iines/
```

Create with the command **touch** the following empty files

```
/home/username/ankkalinna/aku/hupu  
/home/username/ankkalinna/aku/tupu  
/home/username/ankkalinna/aku/lupu  
/home/username/ankkalinna/iines/leenu  
/home/username/ankkalinna/iines/liinu  
/home/username/ankkalinna/iines/tiinu
```

E.g. the command **touch hupu** creates the empty file **hupu**.

After creating all these directories and files, remove them all with the commands **rm** and **rmdir**.

Requirements of the exercise: Write down all the **linux** commands you used to perform the tasks required. Write with **emacs** the file **Vastaus1a.txt**, which contains the commands on separate lines in the correct order.

Hint: With the commands **ls** and **cd** you can check, that you have succeeded in creating and removing the directories and files.

- **Exercise 1b (emacs, L^AT_EX)**

Go to your home directory with the command **cd**

There use the command **mkdir latex** to create the new directory **/home/username/latex/**

Move into this directory with the command **cd latex**

Copy into this directory the file **H1bkesken.tex** from the course website using the command

```
wget http://www.helsinki.fi/~jetsu/tila/H1bkesken.tex 
```

Copy the file **H1bkesken.tex** into a new file **H1bvalmis.tex** with the command

```
cp H1bkesken.tex H1bvalmis.tex 
```

Start editing the file **H1bvalmis.tex** with the command

```
emacs H1bvalmis.tex & 
```

Edit the file **H1bvalmis.tex** into the form specified below.

```
\documentclass{article}  
\begin{document}  
This is my first text file.
```

Leaving one empty line or any number of empty lines
in this file will automatically begin a new paragraph.

```
\end{document}
```

Save this new version which you edited. Run the command

```
pdflatex H1bvalmis 
```

See the resulting file with the command

```
evince H1bvalmis.pdf & 
```

Close the viewer by selecting **Close** from the File menu or click the encircled orange cross in the upper left corner of the window.

Run the commands

`latex H1bvalmis`

`dvips H1bvalmis -o`

See the resulting file with the command

`evince H1bvalmis.ps &`

Close the viewer by selecting **Close** from the File menu or click the encircled orange cross in the upper left corner of the window.

Edit into the file `H1bvalmis.tex` right under the line `\begin{document}` the new line

`\newcommand{\whatever}{\huge My new command}`

Add the text `\whatever` anywhere between the lines `\begin{document}` and `\end{document}`.

Leave at least one space after the text `\whatever`. Save your changes. Run the command

`pdflatex H1bvalmis`

Look at the result with the command

`evince H1bvalmis.pdf &`

Close the viewer by selecting **Close** from the File menu or click the encircled orange cross in the upper left corner of the window.

Add the text `Älykkö` into the file `H1bvalmis.tex` anywhere between the lines `\begin{document}` and `\end{document}`. Save your changes. Run the command

`pdflatex H1bvalmis`

Look at the result with the command

`evince H1bvalmis.pdf &`

Question 1: What went wrong?

Requirements of this exercise: The command `pdflatex H1bvalmis` works and produces the desired file `H1bvalmis.pdf`. Answer to question 1.

Turning in the exercises

Send to the course assistant an e-mail with the following attached files and write into the e-mail a short answer to **question 1** in exercise 1b.

Exercise 1a: `Vastaus1a.txt`

Exercise 1b: `H1bvalmis.tex` and `H1bvalmis.pdf`