

Tutorial 1

Exercise 1 (Set theory).

Simplify the following expressions:

(i) $(\{1,2,3\} \cup \{3,4,5\}) \cap \{3,4\}$

(ii) $(\{1,2,3\} \setminus \{3,4,5\}) \cup \{3,4\}$

Exercise 2 (Git installation).

Install Git on your computer via the official website <https://git-scm.com/downloads>. Ensure that the `git --version` command works in your terminal.

Exercise 3 (Managing Files and Directories).

Perform the following tasks using your command line interface:

- (i) Create a directory called `python-course`.
- (ii) Change the current working directory to `python-course`.
- (iii) Create a file called `hello.txt`.
- (iv) Write the string `Hello World!` to the file `hello.txt`.
- (v) View the contents of the file `hello.txt`.
- (vi) Search for the string `Hello World!` in the file `hello.txt`.
- (vii) Rename the file `hello.txt` to `hello_world.txt`.
- (viii) Move the file `hello_world.txt` to the directory `Documents`.
- (ix) Copy the file `hello_world.txt` to the file `hello_world_copy.txt`.
- (x) Delete the file `hello_world.txt`.
- (xi) Delete the directory `python-course`.

Exercise 4 (Python installation).

Install Python 3.11 or 3.12 on your computer via the official website <https://www.python.org/downloads/>. Ensure that both `python --version` and `pip --version` commands work in your terminal.

Note: Do not use other distributions like from Microsoft Store etc., as they may behave differently in some cases throughout the course.

Exercise 5 (Poetry installation).

Install Poetry on your computer via the official website <https://python-poetry.org/docs/>. Ensure that the `poetry --version` command works in your terminal.

Note: Depending on your operating system, you may need to install additional software first like `scoop` on Windows or `curl` on Linux. Follow the instructions on the website to install Poetry and do not use discouraged methods like `pip install poetry`.

Exercise 6 (Optional: Vimtutor).

Open the terminal and type `vimtutor`. Follow the instructions to learn the basics of Vim and do at least the first section of the tutorial.