Informatics II, Spring 2025, Exercise 0

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Exercise classes: February 24 - 28, 2025

During the exercise class you will perform the necessary installations and then write and run a simple C program. Doing this is important so you are prepared for the exercises in the upcoming exercise classes.

Task 1: Install gcc compiler

Windows:

option 1: follow the *installation* instructions in `https://www.msys2.org`.
option 2: get extension for VisualStudio by the instruction `https://code.visualstudio.com/docs/cpp/config-mingw`

Linux and MacOS:

The gcc compiler should already be installed.

Run the command in the terminal:

```
gcc --version
```

If you have installed gcc correctly, it shows the version of gcc without errors.

Task 2: Compile and run the search.c file using terminal

Download the *search.c* file from OLAT

Open your terminal and execute the following commands.

- Go to the local folder that contains the *search.c* file (navigate with useful commands *ls, cd, pwd...*)

- Run

```
gcc search.c -o search
```

- Run

```
./search
```

- Explain why the program outputs

```
3
```

Task 3

The goal of this task is to find the second largest integer in an array of integers.

Input: An array $A[1..n]$ with n distinct integers, where $n \geq 2$.
Output: the second largest integer in A.

Write a pseudocode algorithm and a C program for this task. Compare the differences between the C code program and its pseudocode counterpart.