NPRG065: Progamming in Python

Practicals 1

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Course Organization

To pass the course and get the credits, you need to create a home project in Python:

- it does not need to be too large or complex
- similar to projects in other programming courses (Java, C#)
- minimum size: around 1 kloc (1000 lines of code)

The evaluation will be determined by the quality of the project:

- application design
- code structure
- code comments
- tests
- code quality in general

The topic can be arbitrary – games, utilities, libraries, data processing, ...

Course Organization – Timeline

- The topic selection and approval: **March 31, 2025**
- Project submission deadline: **June 27, 2025**

Those are final dates, please keep them in mind!

Assignments

1. Implement a Hello world program
2. Implement a function that computes the factorial of its argument
3. Implement a function that returns maximum of two values given via arguments
4. Implement a program that prints out its command line arguments in the reverse order

ASSIGNMENTS

5. Implement a program that prints out the multiplication table for a number given as its command line argument
   - warning – the command line arguments are strings
   - we need to convert it to integer via `int(value)`
6. Implement a program that returns maximum, minimum and average of non-negative numbers given via command line arguments

Assignments

7. Implement a program that prints out a "pine tree" made of stars:

```
  *
 ***
*****
  *
```

- the height of the tree is given by the command line argument
- how to print without a new line: `print(value, end='')`