Python Course

Tutorial 1 - Preliminaries

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Outline

Introduction

Exercises

Introduction

Organization

- New problem sets will be uploaded after the lectures.
- Comprehensive solutions to the problem sets will be provided.
- Materials to enhance your Python skills, along with other tools relevant to the course, will be introduced during tutorial sessions.

Advice for questions and problems

Learning how to handle programming problems of any kind on your own is an essential skill for a programmer. Below, there are a few steps you might want to take, before asking me for advice.

1. Use the resources you already have, take a good look at warnings and error messages, and try again.
2. Use Google (or any other web browser) to search for additional resources, e.g. the official Python documentation or forum posts, e.g. on Stack Overflow.
3. Talk to your friends/fellow students, and try to find a solution together.

If this does not help, ask your questions in the forum in the Ilias course, write me an email or we can discuss it after class.

Note: Please refrain from using Large Language Models (LLMs) such as ChatGPT for solving programming exercises *until we explicitly introduce the usage of AI tools later in the course*. For now, focus on developing your own problem-solving skills.

Exercises

Exercise 1 (i)

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

1. Compute the union:

$$\{1, 2, 3\} \cup \{3, 4, 5\} = \{1, 2, 3, 4, 5\}$$

2. Compute the intersection with $\{3, 4\}$:

$$\{1, 2, 3, 4, 5\} \cap \{3, 4\} = \{3, 4\}$$

Exercise 1 (ii)

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

1. Compute the set difference:

$$\{1, 2, 3\} \setminus \{3, 4, 5\} = \{1, 2\}$$

2. Compute the union with $\{3, 4\}$:

$$\{1, 2\} \cup \{3, 4\} = \{1, 2, 3, 4\}$$

Exercises 2-6

Let's move on to installing Git, Python, Poetry, and managing files and directories with the command line interface (CLI).