Tópicos de Informática para Automação

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Professors

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Class Introduction

Covering the following topics:

- C1. Introduction to Command Line
- C2. Virtualization and Containers
- C3. Code Versioning and Collaboration
- C4. IP Networking Communication
- C5. Web Servers and Technology
- C6. Semistructured Data Manipulation
- C7. Document Compilation (Latex and Markdown)
- C8. GDPR, Intellectual Property, Ethics, and Professionalism in IT

Grading

- 50% Theory + 50% Practice
- Discrete: 25% Project 1 + 25% Project 2 + 50% Exam
- Final: 50% Final Exame + 50% Project

Class Schedule

Date TP2	Date TP1	Topic	Description
15-09-2025	16-09-2025	C0	Setup
22-09-2025	23-09-2025	C1	Linux terminal
29-09-2025	30-09-2025	C1	Windows terminal
06-10-2025	07-10-2025	C2	Virtualization
13-10-2025	14-10-2025	C2	Containers
20-10-2025	21-10-2025	C2	Application containers
27-10-2025	28-10-2025	C3	Git & Github
03-11-2025	04-11-2025	C4	Network configuration
10-11-2025	11-11-2025	C4	Network programing
17-11-2025	18-11-2025	C5	WebPage & deployment
24-11-2025	25-11-2025	C5	Web programming
15-12-2025	02-12-2025	C6	Data visualization
22-12-2025	09-12-2025	C7	Latex & Markdown
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Bibliography

- James F. Kurose and Keith W. Ross. 2021. Computer Networking: A Top-Down Approach (8th edition). Pearson.
- Python Networking 101: Navigating essentials of networking, socket programming, AsyncIO, network testing, simulations and Ansible, Odette Windows, GiftforGits, 2023
- Mailund, Thomas 2019 Introducing Markdown and Pandoc: Using Markup Language and Document Converter
- William Shotts 2019 The Linux Command Line, 2nd Edition - A Complete Introduction
- Paul McFedries 2023 HTML, CSS, & JavaScript All-in-One For Dummies