

Semantic Web and Ontologies: Project 2

OWL Ontology Building

Assignment: Lab 2, Exercises 3 & 4 (Ontology Development)

Objective

The goal of this assignment is to design and build a formal ontology based on a provided text (i.e., the Examination Regulation text in the Lab 2 Appendix). You will use the Protégé ontology editor to create your model.

Deliverables & Deadlines

You are required to submit the following:

- **Ontology File (.owl):** Your ontology file in .owl format, submitted via eCampus.
- **In-Class Presentation:** A presentation of your work during the last lecture of the course.

Important: The submission deadline on eCampus is *before* the day of your presentation.

Presentation Requirements

During your presentation, you are expected to:

- **Explain your ontology:** Clearly describe the concepts (classes), properties, and individuals you have encoded.
- **Justify your modelling choices:** Discuss which specific parts of the text you chose to formalize and what you chose to omit or simplify.
- **Discuss challenges and solutions:** Explain the main difficulties you encountered during the modelling process and how you resolved them.
- **Evaluate the reasoner:** Analyze whether the reasoner (e.g., HermiT, Pellet) was useful for checking consistency, inferring new knowledge, and facilitating your modelling workflow.

Guidelines & Suggestions

- **Focused Modelling:** You are *not* expected to encode the entire text, which is generally impossible. Instead, strategically select a subset of sentences or concepts to formalize.
- **Clarity is Key:** In your presentation, explicitly state which text excerpts you have modeled. This provides a clear context for your design decisions.
- **Simplification is Encouraged:** You are permitted to simplify the original sentences to construct logical ontology axioms. The focus is on demonstrating sound ontological principles rather than achieving complete coverage.