II.3521
Semantic Web and Knowledge Management
2025-2026

TDTPSP_3

Triplification

Exercise 1: Triplification from Text

Triplify the following courses description text into RDF triples. Use the prefixe **s2a**: and **uni**::

Title: Introduction to Programming (CS101)
Description:
This course introduces the fundamental concepts of programming and problem-solving using a high-level language. Topics include variables, data types, control structures (conditionals and loops), functions, and basic algorithms. Students will learn to design, code, test, and debug simple programs. This is a foundational requirement for the Computer Science major. There are no prerequisites for this course.

Title: Introduction to Data Structures (CS201)
Description:
This course provides a comprehensive overview of fundamental data structures. Topics include arrays, linked lists, stacks, queues, trees, and graphs. Students will learn to analyze time and space complexity. This is a core requirement for the Computer Science major. The prerequisite for this course is CS101: Introduction to Programming.

Exercise 2. Triplification from a Database

Design a simple relational database table for Courses, such as:

CourseID	Title	Credits	PrerequisiteID	TaughtBy
MTH301	Calculus I	4	NULL	Dr. Euler
MTH302	Calculus II	4	MTH301	Dr. Newton
ART110	Fundamentals of Drawing	3	NULL	Prof. Kahlo

1. Identify Entities and Relationships;
2. Define RDF Classes and Properties (for the Ontology later);
3. Convert Data into RDF triples and Serialize to Turtle.