

ASSIGNMENT FOR UNIT 3

Identifying Knowledge Patterns and Developing an Ontology

Part I: The objective of this part is to identify **at least 4 situations that should be modeled using an N-ary relation pattern**.

Situations should be identified in Wikipedia pages about the "Camino de Santiago" (known in English as the Way of St James). You can use Wikipedia in English or Spanish.

For each situation you should provide:

- (General) Situation: A sentence in natural language about generic issues (e.g., "A person has been diagnosed with a disease with a probability")
- (Specific) Situation: A sentence in natural language about specific issues on the general situation (e.g., "Christine has breast tumor with high probability")
- The Wikipedia page (url) in which you found the situation
- Graphical representation of the situation you identified
- OWL Code (using Protégé) for the pattern

In addition, these new patterns should be **classified in the N-ary relation pattern taxonomy**¹.

Part II: The main objective of this part is **to develop an ontology** (implemented in OWL) in a particular domain. The building of such a network should be done **reusing** as much as possible existing ontologies and ontology design patterns.

The ontology to be developed should model the knowledge gathered from a Wikipedia page about the "Camino de Santiago" (English or Spanish). You could focus on monuments, cities, and/or any other issue in such a domain.

The ontology should reuse, at least, the "CIDOC object-oriented Conceptual Reference Model (CRM)"². The ontology should also include elements (concepts and/or properties) created by you.

In addition, you should develop a CIDOC module using the pattern about people, groups and communities of practice³.

In order to describe this part, you should provide:

- the Wikipedia page (url) that serves as a set of requirements
- the list of reused resources explaining how they were found and why they were selected
- a graphical view of the ontology
- main design decisions taken during the ontology development as well as any comment or consideration you consider useful.
- Regarding the CIDOC module, you should provide a graphical view of the module, the main design decisions and any problem you have.

¹ Taxonomy shown in lectures slides.

² <https://www.cidoc-crm.org/node/202>

³ <https://github.com/modellingDH/profile-group-community-odp>

Instructions

This assignment should be performed in groups composed of 3/4 students.

The assignment delivery should include

- a PDF file containing the document that explains the work done in the assignment (both Part I and II)
- a set of files or links that contains the patterns (Part I), the developed ontology and the module (Part II)

Only one member of each group should deliver the assignment in Moodle.

All the members should fill in out a questionnaire about the assignment.