

Ontologies for Knowledge Modelling and Management

Tutorial 1 Methodology

1. Construct a 'Fast-Food Ontology', firstly on paper following the Methontology approach, then transfer the class hierarchy into Protégé. Use a menu or a cookbook as a source of information. If you prefer, choose 'Healthy Eating' as the topic.

- a) Before the tutorial, if possible, think of some objectives for this ontology exercise, give a purpose (e.g. use by a business to support on-line ordering, giving health advice), state the granularity and scope.
- b) Prepare a list of terms to be considered for the ontology, expand the following list to 20-30 items: pizza, margherita, napoletana, vegetarian pizza, olives, mushrooms, has-topping, meaty, hot (spicy), mild.
- c) During the tutorial, in a group of 2 or 3, decide on a common list of 20-30 terms to put in the Glossary of Terms. The Type column describes the term, and contains one of: concept (class), instance, constant, relation, class attribute, instance attribute.

Name	Synonyms	Acronyms	Description	Type
Pizza			Flat baked dough covered with tomato sauce cheese and other toppings	concept

- d) On paper, organise the concepts into a hierarchy. Additional concepts may be needed as abstractions of those you have already.
- e) Draw the Binary Relations Diagram.
- f) Organise the concepts and relations into the Concept Dictionary. For example:

Name	Synonym	Acronym	Instances	Class Attributes	Instance Attributes	Relations
Pizza						has-topping
					spicyness	

2. Using Protégé 4 construct the class hierarchy. Begin at the top, and use the 'create subclass' button in the Asserted Class Hierarchy panel (Classes tab). Define relations in the Object Properties tab, ensure that the domain and range are specified.

Protégé can be obtained from <http://protege.stanford.edu/>. To start Protégé under Dice type: protege4.