

Assignment 2: Ontology Development with Protégé

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Description

This ontology models the domain of the seasoning of food. It contains cuisines, spices, herbs and mixtures. Because the model starts to grow very large very fast I have limited the ontology (for now) to the spicy mixtures found on [cooksmarts.com](http://www.cooksmarts.com/articles/ultimate-infographic-guide-spices/) (<http://www.cooksmarts.com/articles/ultimate-infographic-guide-spices/>)

And some of the classification is taken from chapter one in Handbook of Herbs and Spices edited by K.V. Peter, Woodhead Publishing 2001.

Model

Because this ontology uses a lot of natural kinds (names of spices for instance), it becomes less clear what is an individual. In the case of a student with a particular number this seems pretty straight-forward. However with for instance Cinnamon I am not talking about a particular stick of cinnamon in my hand or a batch of cinnamon with a particular number in the belly of some cargo ship. For all intents and purposes of this ontology the names of a particular plant, herb or spice is taken to instantiate the class it belongs to.

The names of cuisines seems less of an issue as it is common the speak of the French cuisine et cetera and they are also taken to be individuals here. However there are some cuisines that form a group of cuisiness (eastern, Mediterranean, latin) The cuisines have a relations to a particular region indicated by the corresponding IRI of the dbpedia resource. The plant parts and taken to be classes, because whereas you can speak of the bark of a plant, in this ontology the cinnamon is a (piece of) bark.

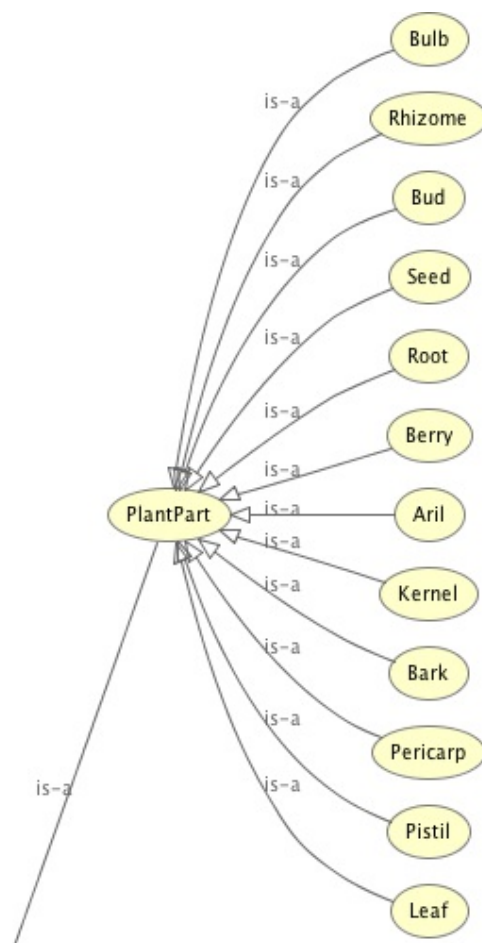
<https://www.w3.org/2007/OWL/wiki/Punning>

Linked Ontologies

dpr

dpo

Class Hierarchy





Object Properties

uses, isUsedIn

contains, isContainedIn

isFromRegion, isFromCulture, hasCuisine

Data Properties

Example Individuals

Queries

The queries are executed with the following prefix.

```
PREFIX rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
PREFIX owl: <http://www.w3.org/2002/07/owl#>
PREFIX rdfs: <http://www.w3.org/2000/01/rdf-schema#>
PREFIX xsd: <http://www.w3.org/2001/XMLSchema#>
PREFIX :
<http://www.semanticweb.org/remkoboschker/ontologies/spice#>
```

1. Simple

1. Complex

1. Restrict to type

1. Restrict type to subclass of a type

1. Using feature of SPARQL 1.1