

protégé 3.5 beta (file:\C:\Program%20Files\Protege\_3.5\_beta\examples\pizza\pizza.owl.pprj, OWL / RDF Files)

File Edit Project OWL Reasoning Code Tools BioPortal Window Collaboration Help

Metadata(pizza.owl) OWLClasses Properties Individuals Forms

**SUBCLASS EXPLORER**  
For Project: pizza.owl

Asserted Hierarchy

- CheeseyPizza
- InterestingPizza
- MeatyPizza
- NamedPizza
  - American
  - AmericanHot
  - Cajun
  - Capricciosa
  - Caprina
  - Fiorentina
  - FourSeasons
  - FruittiDMare
  - Giardiniera
  - LaReine
  - Margherita**
  - Mushroom
  - Napoletana
  - Parmense
  - PolloAdAstra
  - PrinceCarlo
  - QuattroFormaggi
  - Rosa
  - Siciliana
  - SloppyGiuseppe
  - Soho
  - UnclosedPizza
  - Veneziana
- NonVegetarianPizza
- RealItalianPizza
- SpicyPizza
- SpicyPizzaEquivalent

**CLASS EDITOR for Margherita (instance of owl:Class)**  
For Class: <http://www.co-ode.org/ontologies/pizza/2005/10/18/pizza.owl#Margherita>

Property	Value	Lang
rdfs:comment		
rdfs:label	Margherita	pt

Annotations

Asserted Conditions

NECESSARY & SUFFICIENT

NECESSARY

- NamedPizza
- hasTopping **only** (MozzarellaTopping or TomatoTopping) *Tomato*
- hasTopping **some** MozzarellaTopping *Mozzarella*
- hasTopping **some** TomatoTopping

INHERITED

- hasBase **some** PizzaBase [from Pizza]

Disjoints

- Capricciosa
- Veneziana
- PrinceCarlo
- FourSeasons
- Rosa
- Giardiniera
- Fiorentina
- Soho

Logic View Properties View

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Metadata(pizza.owl) OWLClasses Properties Individuals Forms

**SUBCLASS EXPLORER**  
For Project: pizza.owl

Asserted Hierarchy

- Pizza
  - CheesyPizza
  - InterestingPizza
  - MeatyPizza
  - NamedPizza
    - American
    - AmericanHot
    - Cajun
    - Capricciosa
    - Caprina
    - Fiorentina
    - FourSeasons
    - FruttiDiMare
    - Giardiniera
    - LaReine
    - Margherita
    - Mushroom
    - Napoletana
    - Parmense
    - PolloAdAstra
    - PrinceCarlo
    - QuattroFormaggi
    - Rosa
    - Siciliana
    - SloppyGiuseppe
    - Soho
    - UnclosedPizza
    - Veneziana
    - PizzaMargarita
    - Class\_margatita

**CLASS EDITOR for Class\_margatita (instance of owl:Class)**  
For Class: [http://www.co-ode.org/ontologies/pizza/2005/10/18/pizza.owl#Class\\_margatita](http://www.co-ode.org/ontologies/pizza/2005/10/18/pizza.owl#Class_margatita)  Inferred View

Property	Value	Lang
rdfs:comment		

Annotations

Asserted Conditions

- NECESSARY & SUFFICIENT
- NECESSARY
  - NamedPizza
  - hasTopping **only** (MozzarellaTopping and TomatoTopping) (2)
  - hasTopping **some not** FishTopping (→ true)
  - hasTopping **some** (TomatoTopping and MozzarellaTopping) (7)
- INHERITED
  - hasBase **some** PizzaBase [from Pizza]

Disjoints

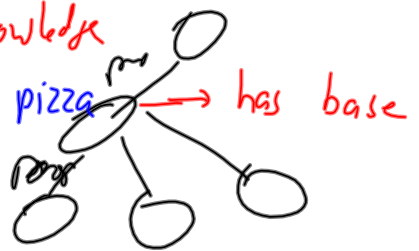
Logic View Properties View

*Handwritten notes:* "Enough" with an arrow pointing to the 'only' condition. A green circle highlights the 'some not' condition.

Computer-based

# Reasoning

= meaning of knowledge



Background:

Classes with

restrictions

characteristic

limitation  
specific

create relations

=

properties  $\hat{=}$  attribute

export triplets

Instance, Individual

## Rules (Business rules)

verbal: vegetarian pizza is a pizza  
without (meet a fish)

translate

Computer rules

apply

Knowledge Space

extract knowledge

(check consistency)

To Do

- create your ontology ("reuse")

- formulate 3-5 rubs verbally

↳ expected outcome?