



**SHRI VILEPARLE KELAVANI MANDAL'S
DWARKADAS J. SANGHVI COLLEGE OF ENGINEERING**
(Autonomous College Affiliated to the University of Mumbai)
NAAC ACCREDITED with "A" GRADE (CGPA : 3.18)
DEPARTMENT OF INFORMATION TECHNOLOGY

**COURSE CODE:** DJ19ITL801**DATE:** 6/03/2024**COURSE NAME:** Semantic Web Technology Laboratory**CLASS:** Final Year B.Tech**NAME:** Rishikesh Sharma**SAP ID:** 60003200102**EXPERIMENT NO. 7****AIM / OBJECTIVE:**

Design of Ontology using RDFS

THEORY:

The pizza ontology is a well-known ontology in the semantic web community. It is developed for educational purposes by the University of Manchester, which is a leading university in the development of semantic technologies.

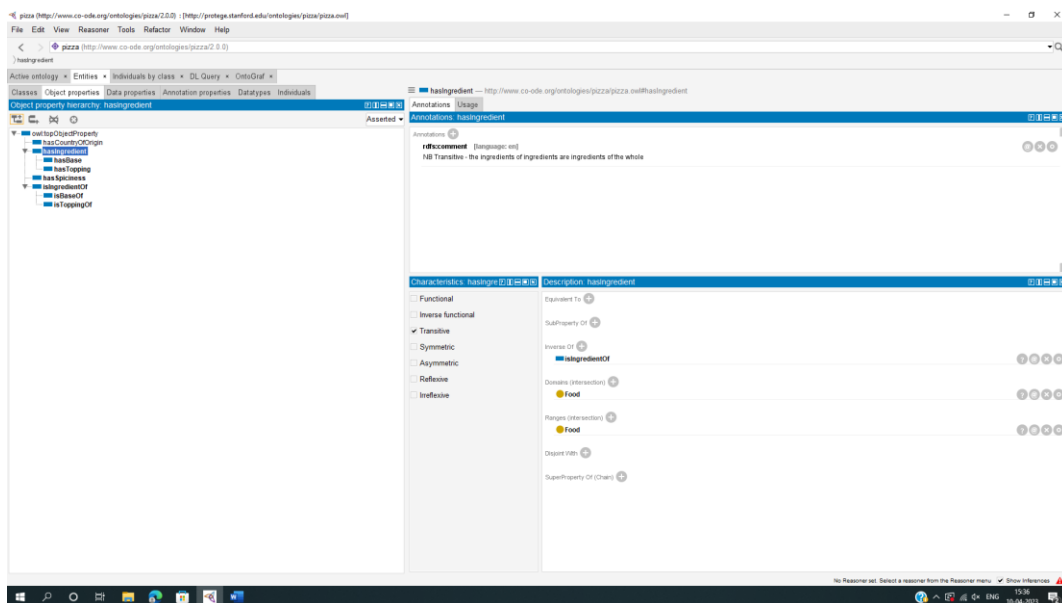
PROCEDURE:

1. Upload pizza Ontology from the URL.
2. Explore using various tools in protégé.
3. Browse the class hierarchy, the property hierarchies and the individuals and note how the ontology describes the domain of pizzas.

Ontology metrics:	
Metrics	
Axiom	801
Logical axiom count	322
Declaration axioms count	120
Class count	100
Object property count	8
Data property count	0
Individual count	5
Annotation Property count	12
Class axioms	
SubClassOf	259
EquivalentClasses	15
DisjointClasses	14
GCI count	0
Hidden GCI Count	2
Object property axioms	
SubObjectPropertyOf	4
EquivalentObjectProperties	0
InverseObjectProperties	3
DisjointObjectProperties	0
FunctionalObjectProperty	4
InverseFunctionalObjectProperty	3
TransitiveObjectProperty	2



Classes





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Data Properties

Protege (http://www.cs.ode.org/ontologies/pizza/2.0.0) [http://protege.stanford.edu/ontologies/pizza/pizza.owl]

File Edit View Reasoner Tools Refactor Window Help

Active ontology: Entities Individuals by class DL Query OntoGraf

Classes: Object properties Data properties Annotation properties Datatypes Individuals

Data property hierarchy: owl:topDataProperty

Annotations: owl:topDataProperty

Annotations Usage

Annotations: owl:topDataProperty

Characteristics: owl:topDataProperty

Functional

Description: owl:topDataProperty

Equivalent to

SubProperty Of

Domains (Intersection)

Ranges

Disjoint With

No Reasoner set. Select a reasoner from the Reasoner menu. Show Inferences

Individuals

Protege (http://www.cs.ode.org/ontologies/pizza/2.0.0) [http://protege.stanford.edu/ontologies/pizza/pizza.owl]

File Edit View Reasoner Tools Refactor Window Help

Active ontology: Entities Individuals by class DL Query OntoGraf

Classes: Object properties Data properties Annotation properties Datatypes Individuals

Individuals: America

Annotations: America

Annotations Usage

Annotations: America

Description: America

Types

Country

owl:Thing

Same Individual As

Different Individuals

England, France, Germany, Italy

Property assertions: America

Object property assertions

Data property assertions

Negative object property assertions

Negative data property assertions

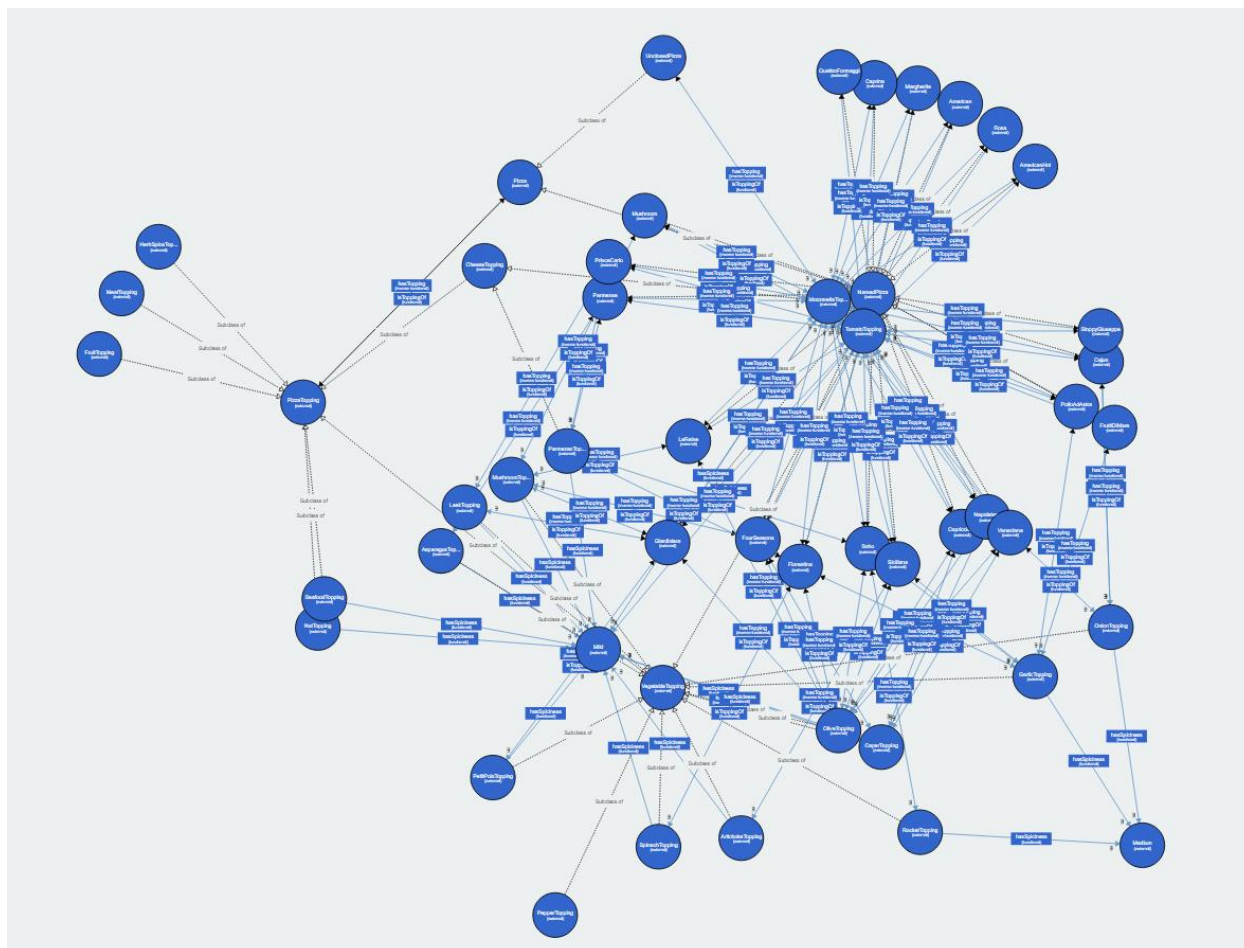
No Reasoner set. Select a reasoner from the Reasoner menu. Show Inferences



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graph



BOOKS AND WEB RESOURCES:

1. <https://cambridgesemantics.com/blog/semantic-university/learn-owl-rdfs/>
2. <https://medium.com/@vindulajayawardana/ontology-generation-and-visualization-with-prot%C3%A9g%C3%A9-6df0af9955e0>