

ISIT315- Spring 2020- Lab Exercise 4

Write the semantic of the following OWL statements in plain English. Then compare your answers with the semantic explained at <https://www.w3.org/TR/2004/REC-owl-guide-20040210/> . Submit your answers (the completed table) via the Moodle link.

#	OWL Statements	Semantic
1	<pre> <owl:Class rdf:ID="WhiteWine"> <owl:intersectionOf rdf:parseType="Collection"> <owl:Class rdf:about="#Wine" /> <owl:Restriction> <owl:onProperty rdf:resource="#hasColor" /> <owl:hasValue rdf:resource="#White" /> </owl:Restriction> </owl:intersectionOf> </owl:Class> </pre>	
2	<pre> <owl:Class rdf:ID="Fruit"> <owl:unionOf rdf:parseType="Collection"> <owl:Class rdf:about="#SweetFruit" /> <owl:Class rdf:about="#NonSweetFruit" /> </owl:unionOf> </owl:Class> </pre>	
3	<pre> <owl:Class rdf:ID="NonFrenchWine"> <owl:intersectionOf rdf:parseType="Collection"> <owl:Class rdf:about="#Wine"/> <owl:Class> <owl:complementOf> <owl:Restriction> <owl:onProperty rdf:resource="#locatedIn" /> <owl:hasValue rdf:resource="#FrenchRegion" /> </owl:Restriction> </owl:complementOf> </owl:Class> </owl:intersectionOf> </owl:Class> </pre>	
4	<pre> <owl:Class rdf:ID="SweetFruit"> </pre>	

	<pre> <rdfs:subClassOf rdf:resource="#EdibleThing" /> </owl:Class> <owl:Class rdf:ID="NonSweetFruit"> <rdfs:subClassOf rdf:resource="#EdibleThing" /> <owl:disjointWith rdf:resource="#SweetFruit" /> </owl:Class> <owl:Class rdf:ID="Fruit"> <owl:unionOf rdf:parseType="Collection"> <owl:Class rdf:about="#SweetFruit" /> <owl:Class rdf:about="#NonSweetFruit" /> </owl:unionOf> </owl:Class> </pre>	
5	<pre> <owl:Class rdf:ID="Subquindry"> ... <rdfs:subClassOf> <owl:Restriction> <owl:onProperty rdf:resource="#hasSugar" /> <owl:hasValue rdf:resource="#Dry" /> </owl:Restriction> </rdfs:subClassOf> </owl:Class> </pre>	
6	<pre> <owl:Class rdf:ID="Vintage"> <rdfs:subClassOf> <owl:Restriction> <owl:onProperty rdf:resource="#hasVintageYear"/> <owl:cardinality rdf:datatype="&xsd;nonNegativeInteger">1</owl:cardinality> </owl:Restriction> </rdfs:subClassOf> </owl:Class> </pre>	
7	<pre> <owl:Class rdf:ID="Wine"> <rdfs:subClassOf rdf:resource="&food;PotableLiquid" /> ... <rdfs:subClassOf> <owl:Restriction> <owl:onProperty rdf:resource="#hasMaker" /> <owl:allValuesFrom rdf:resource="#Winery" /> </owl:Restriction> </rdfs:subClassOf> </owl:Class> </pre>	

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	<pre> </owl:Restriction> </rdfs:subClassOf> ... </owl:Class> </pre>	
8	<pre> <owl:ObjectProperty rdf:ID="adjacentRegion"> <rdf:type rdf:resource="#owl:SymmetricProperty" /> <rdfs:domain rdf:resource="#Region" /> <rdfs:range rdf:resource="#Region" /> </owl:ObjectProperty> <Region rdf:ID="MendocinoRegion"> <locatedIn rdf:resource="#CaliforniaRegion" /> <adjacentRegion rdf:resource="#SonomaRegion" /> </Region> </pre>	

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