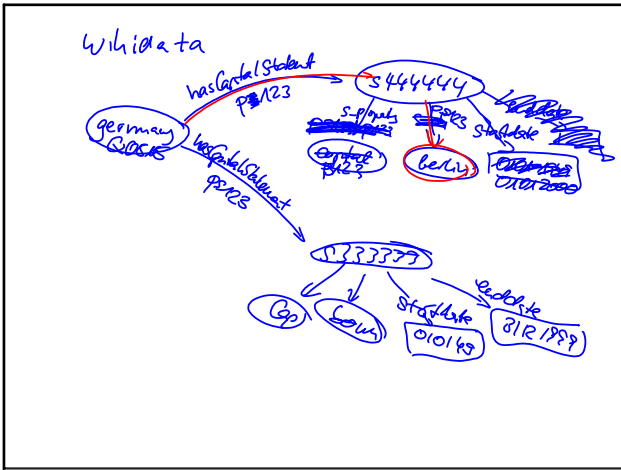


- Wikidata example  
 Q10362 is a owl:Class.  
 Recall: Classes should not have  
user defined properties,  
 but only properties from rdfs:  
 owl: ~~is~~ <sup>nameSpace</sup>  
 => give Classes a name??  
 => owl: AnnotationProperty a owl: Class.  
 rdfs: ~~is~~ a owl: AnnotationProperty

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Wikidata ~ RDF Modeling  
 "Knowledge Prop" -> "Everything"  
 => Statements ~ annotat, qualify  
 => rdfs:Statement:  
 (Germany) hasCapital (<berlin>)  
 [ a rdfs:Statement;  
 rdfs:subject (Germany);  
 rdfs:property hasCapital;  
 rdfs:object (<berlin>)  
 since "01-01-2000"  
 anonymously for (ge, capital, berlin (1949-2000))  
 ~ Wikidata next slide  
 RDF-  
 Reification  
 of  
 8 statements

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Q1236 : Concepts: Person, Male, Female  
 Concept Constructor:  
 Person  $\sqcap$  Male  
 Male  $\sqcup$  Female  
 Statement/Assertion: Person  $\sqsubseteq$  Male  $\sqcup$  Female  
 Constructor: Person  $\sqcap$   $\exists$ hasChild.Person  
 Definition: Parent  $\equiv$  Person  $\sqcap$   $\exists$ hasChild.T  
 all Children of Parents are Parents:  
 Person  $\sqsubseteq$   $\forall$ hasChild.Person  
 Childless Dinge:  
 Childless  $\equiv$   $\forall$ hasChild.Nothing  
 Car  $\sqsubseteq$  Childless  
~~Car(x)~~  
 => Reification: class x have children?  
 -DB: select... ~ no. CWA  
 -Recursive:  
 Tableau:  $\forall \neq \neg \exists y: \text{hasChild}(x, y)$

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- Childless  $\equiv$   $\forall$ hasChild.Nothing
- Car  $\sqsubseteq$  Childless
- Car(x)
- $\exists y: \text{hasChild}(x, y)$
- hasChild(x, a)
- childless(x)
- ( $\forall$ hasChild.Nothing)(x)
- Nothing(a)  $\leftarrow a \in \emptyset$

(Skolem)

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