

SP312 :

$$C_1 \equiv A \cap B \quad \text{definition}$$

$$C_2 \subseteq A \quad \text{just constraints}$$

$$C_2 \subseteq B \quad \text{"}$$

} K

$$C_1 \equiv C_2 ? \quad \text{No.}$$

C_2 may be empty!

$$C_2 \subseteq C_1 \quad \checkmark$$

$$C_1 \subseteq C_2 ? \quad \text{No.}$$

$K \cup \{c_1(a), \neg c_2(a)\}$
is consistent.

Jun 26-10:09

SP317 :

$$\text{Parent} \equiv \text{Person} \cap \exists x \text{ has child. } T$$

→ next slide "steer"

≡ $\exists \text{child. } T$

Person(john)

hasChild(john,alice)

Jun 26-10:37

SL 317 :

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:Parent a owl:Class ;
      owl:equivalentClass
      [ a owl:Class ;
        owl:intersectionOf
        ( :Person
          [ a owl:Class ;
            a owl:Restriction ;
            owl:onProperty :hasChild ;
            owl:withCardinality 1 ] ) ] ] .

:john a :Person ;
      :hasChild 'alice' .

→ equivalent
[ a owl:Restriction ;
  owl:onProperty hasChild ;
  owl:someValuesFrom
  owl:Thing ]
≡ ∃hasChild.T

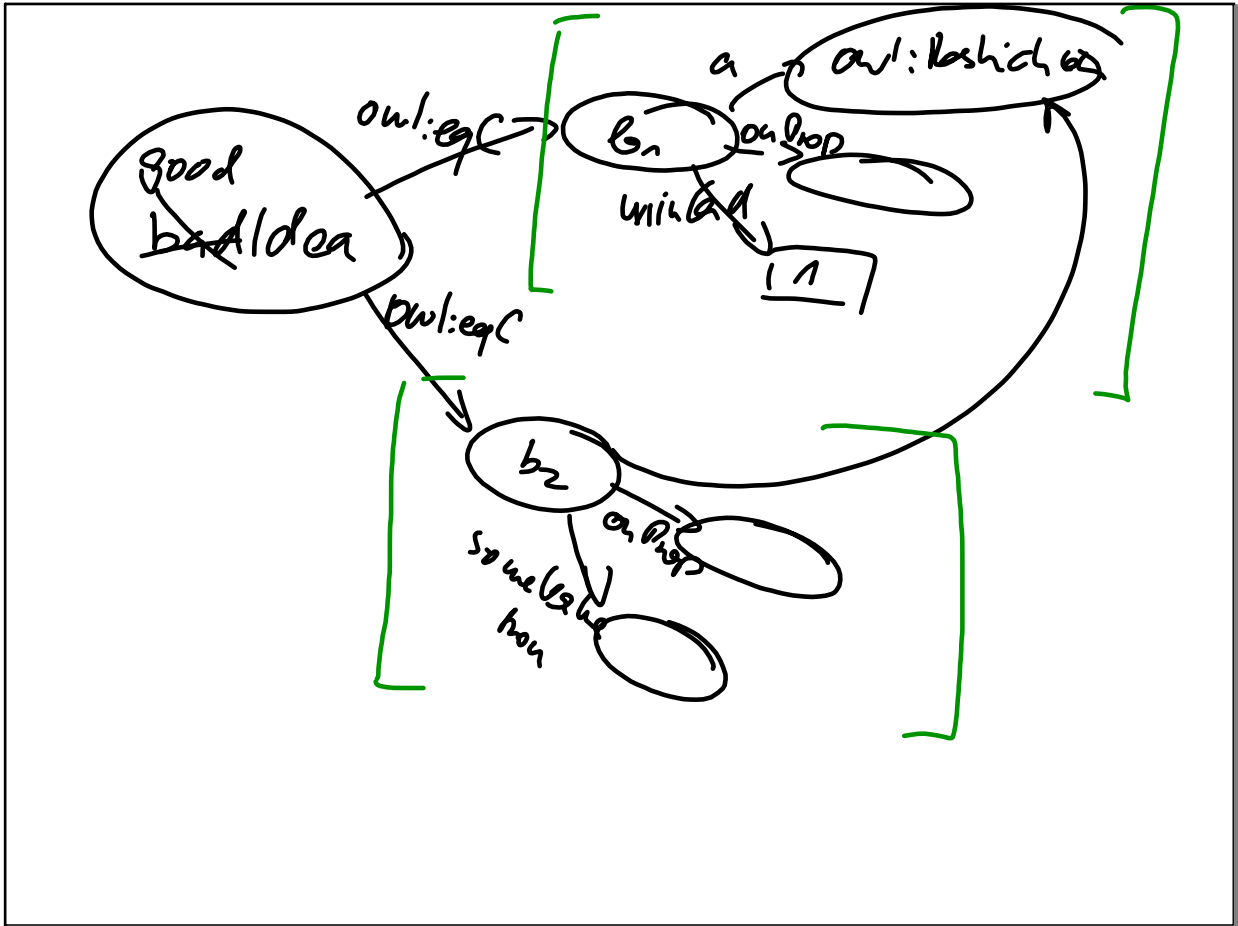
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Jun 26-10:41

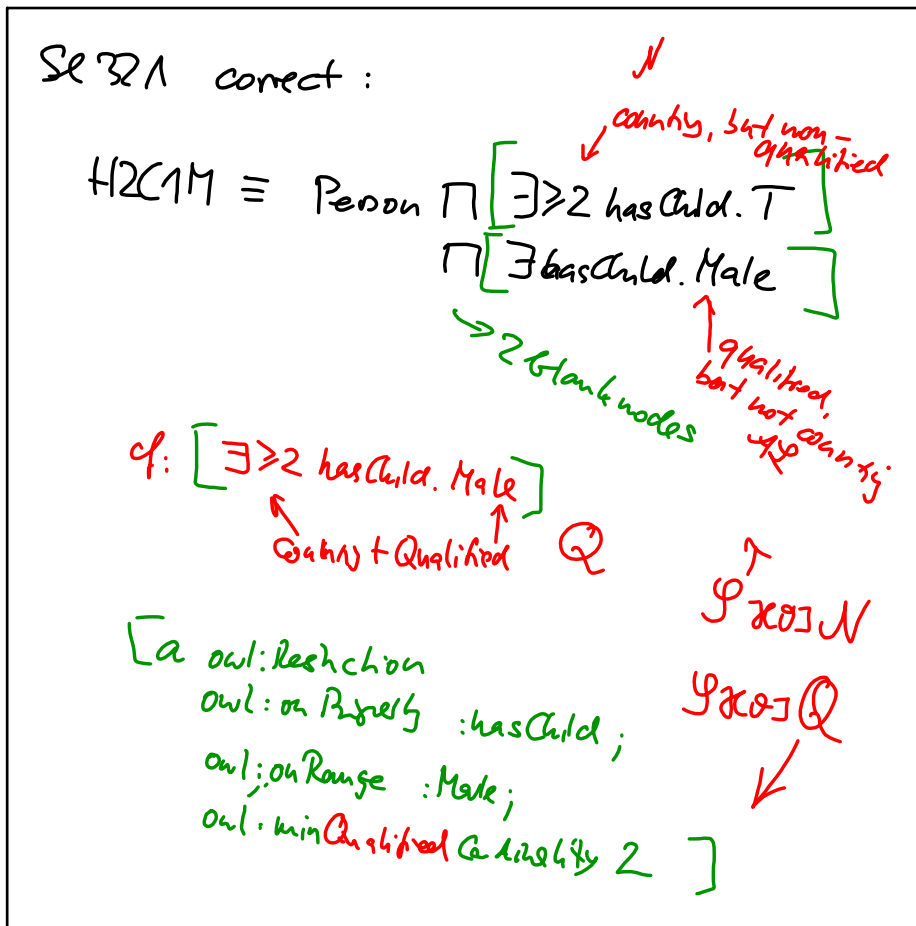
SL 318



Jun 26-10:49



Jun 26-10:52



Jun 26-11:00

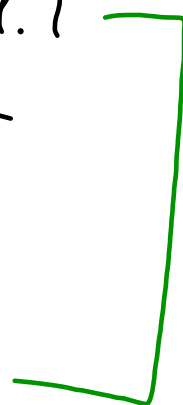
Q 324

Childless A $\equiv \exists \leq 0 \text{ hasChild.T}$

Childless B $\equiv \forall \text{ hasChild.L}$

Parent $\equiv \exists \text{ hasChild.T}$

Childless C $\equiv \neg \text{Parent}$



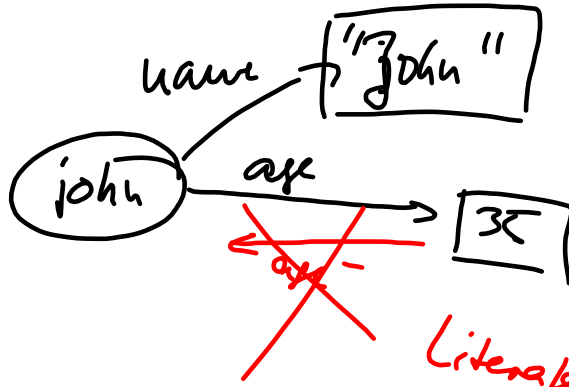
Jun 26-11:11

Q 325



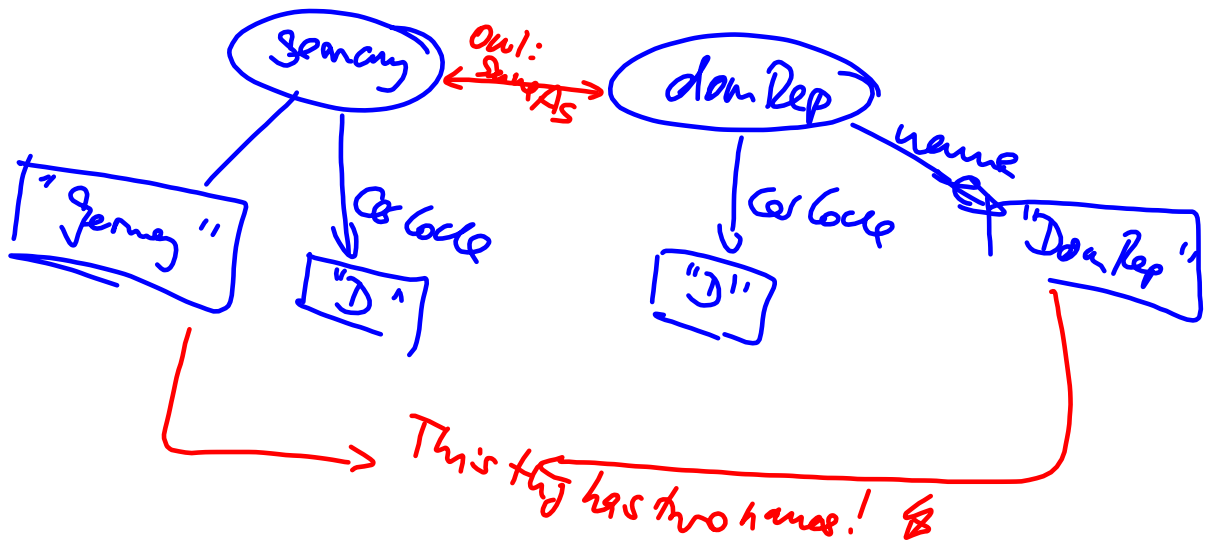
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8326



Literals don't have properties!

Jun 26-11:24



Jun 26-11:31