

## Terminologija

bone  $\sqsubseteq \top$

brain  $\sqsubseteq \top$

white+thing  $\sqsubseteq \top$

plant  $\sqsubseteq \top$

grass  $\sqsubseteq \text{plant}$

tree  $\sqsubseteq \text{plant}$

leaf  $\sqsubseteq \forall \text{part\_of}.\text{tree}$

male  $\sqsubseteq \top$

female  $\sqsubseteq \top$

young  $\sqsubseteq \top$

adult  $\sqsubseteq \top$

elderly  $\sqsubseteq \text{adult}$

pet  $\sqsubseteq \exists \text{is\_pet\_of}.\top$

animal  $\sqsubseteq \exists \text{eats}.\top$

vegetarian  $\equiv \text{animal} \sqcap \forall \text{eats}.\neg \text{animal} \sqcap \forall \text{eats}.\neg (\exists \text{part\_of}.\text{animal})$

duck  $\sqsubseteq \text{animal}$

cat  $\sqsubseteq \text{animal}$

tiger  $\sqsubseteq \text{animal}$

dog  $\sqsubseteq \exists \text{eats}.\text{bone}$

sheep  $\sqsubseteq \text{animal} \sqcap \forall \text{eats}.\text{grass}$

giraffe  $\sqsubseteq \text{animal} \sqcap \forall \text{eats}.\text{leaf}$

cow  $\sqsubseteq \text{vegetarian}$

mad+cow  $\equiv \text{cow} \sqcap \exists \text{eats}.\text{(brain} \sqcap \exists \text{part\_of}.\text{sheep)}$

person  $\sqsubseteq \text{animal}$

kid  $\equiv \text{young} \sqcap \text{person}$

man  $\equiv \text{person} \sqcap \text{male} \sqcap \text{adult}$

woman  $\equiv \text{female} \sqcap \text{person} \sqcap \text{adult}$

old+lady  $\equiv \text{elderly} \sqcap \text{female} \sqcap \text{person}$

old+lady  $\sqsubseteq \forall \text{has\_pet}.\text{cat} \sqcap \exists \text{has\_pet}.\text{animal}$

grownup  $\equiv$  person  $\sqcap$  adult  
 animal+lover  $\equiv$  person  $\sqcap$   $\exists$ has\_pet  
 pet+owner  $\equiv$   $\exists$ has\_pet.animal  $\sqcap$  person  
 cat+liker  $\equiv$   $\exists$ likes.cat  $\sqcap$  person  
 cat+owner  $\equiv$  person  $\sqcap$   $\exists$ has\_pet.cat  
 dog+liker  $\equiv$   $\exists$ likes.dog  $\sqcap$  person  
 dog+owner  $\equiv$   $\exists$ has\_pet.dog  $\sqcap$  person

### Aksiomi

dog  $\sqcap$  cat  $\sqsubseteq$   $\perp$   
 young  $\sqcap$  adult  $\sqsubseteq$   $\perp$   
 (animal  $\sqcup$   $\exists$ part\_of.animal)  $\sqcap$  (plant  $\sqcup$   $\exists$ part\_of.plant)  $\sqsubseteq$   $\perp$

### Lastnosti

$\exists$ likes.T  $\sqsubseteq$  T  
 $\exists$ eaten\_by.T  $\sqsubseteq$  T  
 $\exists$ eats.animal  $\sqsubseteq$  T (eats  $\equiv$  eaten\_by<sup>-1</sup>)  
 $\exists$ works\_for.T  $\sqsubseteq$  T  
 $\exists$ has\_parent.T  $\sqsubseteq$  T  
 $\exists$ has\_father.man  $\sqsubseteq$  T  
 $\exists$ has\_mother.woman  $\sqsubseteq$  T  
 $\exists$ has\_child.T  $\sqsubseteq$  T  
 $\exists$ has\_pet.animal  $\sqsubseteq$  T (domain=animal)  
 $\exists$ is\_pet\_of.T  $\sqsubseteq$  T (is\_pet\_of  $\equiv$  has\_pet<sup>-1</sup>)  
 $\exists$ part\_of.T  $\sqsubseteq$  T  
 $\exists$ has\_part.T  $\sqsubseteq$  T (has\_part  $\equiv$  part\_of<sup>-1</sup>)  
 has\_mother  $\sqsubseteq$  has\_parent  
 has\_pet  $\sqsubseteq$  likes

has\_father  $\sqsubseteq$  has\_parent

Individualni objekti

Thing(Tom)

duck(Dewey)

duck(Huey)

duck(Louie)

dog(Fido)

cow(Flossie)

tiger(Fluffy)

dog(Rex)

is\_pet\_of(Rex,Mick)

cat(Tibbs)

person(Kevin)

person(Fred)

has\_pet(Fred,Tibbs)

person(Joe)

has\_pet(Joe,Fido)

male(Mick)

male(Minnie)

female(Minnie)

has\_pet(Minnie,Tom))

person(Walt)

has\_pet(Walt,Huey)

has\_pet(Walt,Louie)

has\_pet(Walt,Dewey)