

RDF	S P O	
resource	property resource	resources values (strings, numbers)
germany italy japan	name name area	"germany" "italy" 356100
germany	capital	berlin
berlin	name	"Berlin"
capital	isa	not rdf:Property
capital	domain	Country
capital	range	city
germany	isa	Country
country	isa	owl:Class

[] literals
[] metadata
[] $\forall x, y: \text{capital}(x, y) \rightarrow \text{Country}(x)$

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besides tables

Datenmodell: RDF

Triples / Graph

Serialisationsyntax: N3/Turtle

RDF/XML

Query language: SPARQL

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SPARQL

	S	P	O
	Germany	?P	?V
answers	?P / name	?V / "Germany"	
	?P / area	?V / 356100	
	?P / capital	?V / Berlin	
	?P / has city	?V / Berlin	
	?P / has city	?V / Hamburg	

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P : alle geraden Zahlen sind durch 2 teilbar

Domain: d. 0, 2, 4, 6, ... 8.

$\forall x \in d: \exists n \in \mathbb{N}_0: x = 2 \cdot n$

IA: $0 = 2 \cdot 0, 0 \in \mathbb{N}_0$

IS: $x \in d \Rightarrow \exists y \in d: x = y + 2$

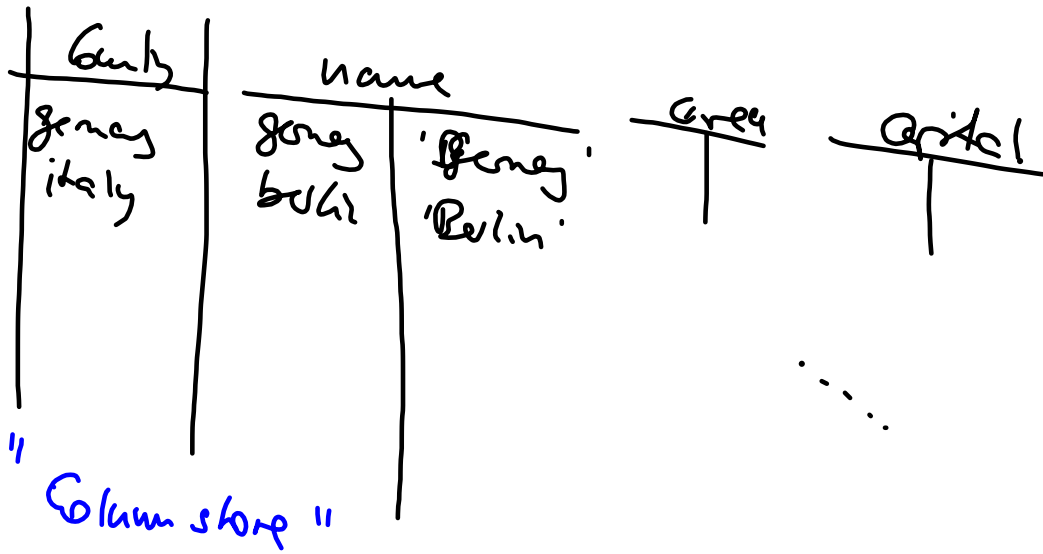
HOL proof: $\Rightarrow \exists n_0: x = 2 \cdot n_0$ (nach IV, $y \in d$)

Ischelle/HOL $x = 2 \cdot n_0 + 2 = 2 \cdot (n_0 + 1)$

Zurückf. \rightarrow Algebra $= 2 \cdot n_1, n_1 \in \mathbb{N}$

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RDF model: unary + binary predicates
< relations



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