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SL 28 in FOL

$\forall x, y:$
 $\text{Subordinate}(x, y) \leftarrow$

$\exists d: \text{worksfor}(x, d) \wedge \text{mgr}(y, d)$

} intensional knowledge

+ additional ones (emp, manager)

given in the DB: extensional knowledge

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FOL example

$$\forall c: \text{Country}(c) \rightarrow \exists x: \text{capital}(c, x) \wedge \text{City}(x)$$

every country has at most one capital:

$$\forall c: \text{Country}(c) \rightarrow ?$$

Deductive DB Slang:

$$\forall c: (\text{false} \leftarrow \text{Country}(c) \wedge (\exists x, y: \text{capital}(c, x) \wedge \text{capital}(c, y) \wedge x \neq y))$$

~~capital(c, x) \wedge capital(c, y) \wedge x \neq y~~ \rightarrow false

c/germany; x/berlin y/berlin

Integrity constraint \cong SQL

Web context: different URIs for same object

$$\forall c, x, y: (x = y \leftarrow \text{Country}(c) \wedge \text{capital}(c, x) \wedge \text{capital}(c, y) \wedge x \neq y)$$

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