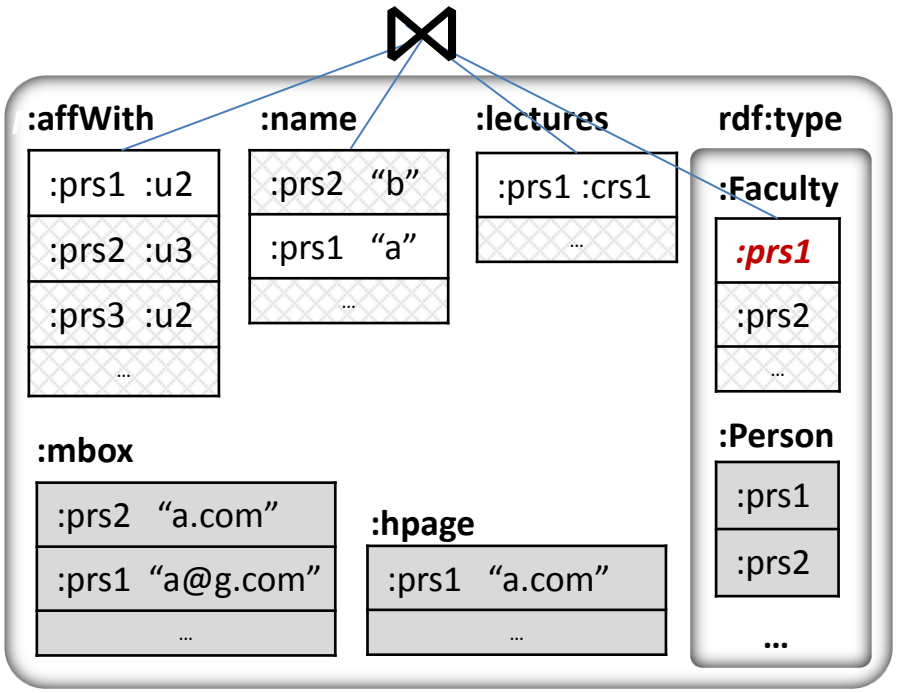
Q. SELECT * WHERE {
?prs :affWith ?a .
?prs :name ?n1 .
?prs :lectures ?crs .
?prs rdf:type :Faculty .
}

$stp_1 = \{a, n, l, t_F\}$

Storage Layout in SemStorm

VP-based Storage Layout



VS.

[ahlmnt]

$tg_1 =$
(:psr1, a, {:u2, :u3})
(:psr1, h, {"a.com"})
(:prs1, l, {:crs1})
(:psr1, m, {"a@g.com"})
(:psr1, n, {"a"})
(:prs1, t, {:Person, :Faculty})

[amnt]

$tg_2 =$
(:psr2, a, {:u1, :u3, :u5})
(:psr2, m, {"b@n.edu"})
(:psr2, n, {"b", "bb"})
(:prs2, t, {:Person, :Faculty})

$tg_3 =$
(:psr3, a, {:u2, :u4, :u6})
(:psr3, m, {"c@g.com"})
(:psr3, n, {"c", "cc"})
(:prs3, t, {:Person, :Faculty})

(proc. & relevant) (proc. & irrelevant) (not proc.)

Schema

(before)

$tg_1 =$
(:psr1, a, {:u2, :u3})
(:psr1, h, {"a.com"})
(:prs1, l, {:crs1})
(:psr1, m, {"a@g.com"})
(:psr1, n, {"a"})
(:psr1, t, {:Faculty, :Person})

Applying an ent. rule "RDFS2"

(:lectures, rdfs:domain, :Faculty)
(:prs1, lectures, :crs1)

(:prs1, rdf:type, :Faculty)

(After)

$tg_1' =$
(:psr1, a, {:u2, :u3})
(:psr1, h, {"a.com"})
(:prs1, l, {:crs1})
(:psr1, m, {"a@g.com"})
(:psr1, n, {"a"})
(:prs1, t, {~~:Faculty~~, :Person})