

Deductive Databases & Knowledge Based Systems

Sheet 6

Exercise 1

Provided is following *Datalog^{neg}* program:

$q(1,2).$

$q(2,3).$

$s(1,3).$

$r(X,Y) : \neg s(X,Y).$

$p(X,Y) : \neg q(X,Y), \neg r(X,Y).$

$p(X,Y) : \neg q(X,Y), \neg s(X,Y).$

$p(X,Z) : \neg Y = W, p(X,Y), p(W,Z).$

1. Transform the program to relational algebra by providing $eval(p)$ and $eval(r)$
2. Compute the fixpoint relations by using your results from 1.