

Derek Wang – 1332178

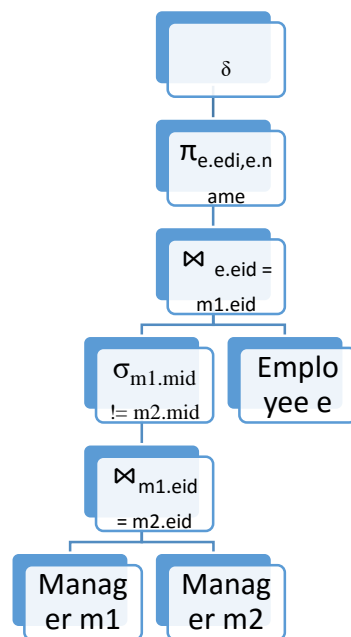
CSE 414 Databases

HW 4

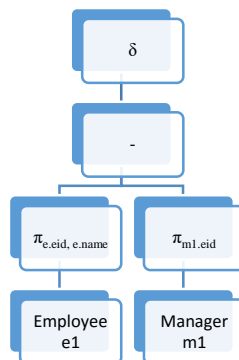
1.

$\text{employeeID}(x) \text{ :- Manager}(x,y) , \text{ Manager}(x,z) , \text{ NOT } y = z$

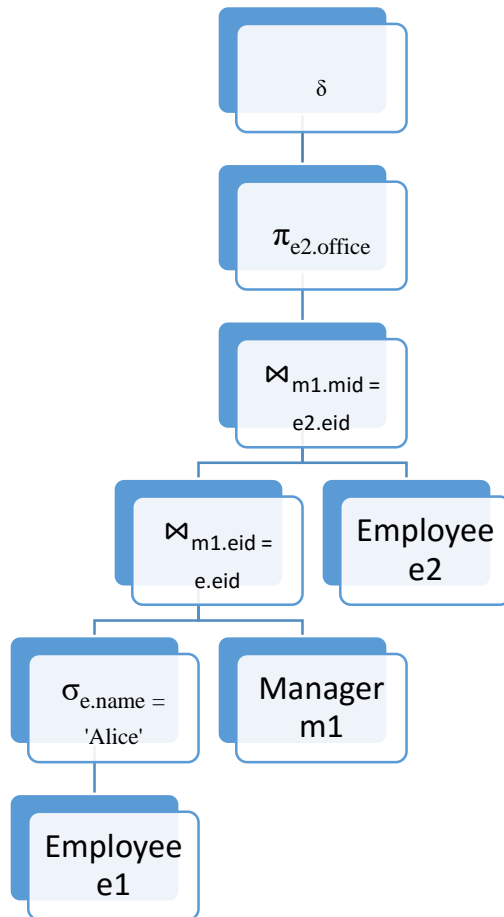
$\text{output}(x,y) \text{ :- employeeID}(x) , \text{ Employee } (x,y, _)$



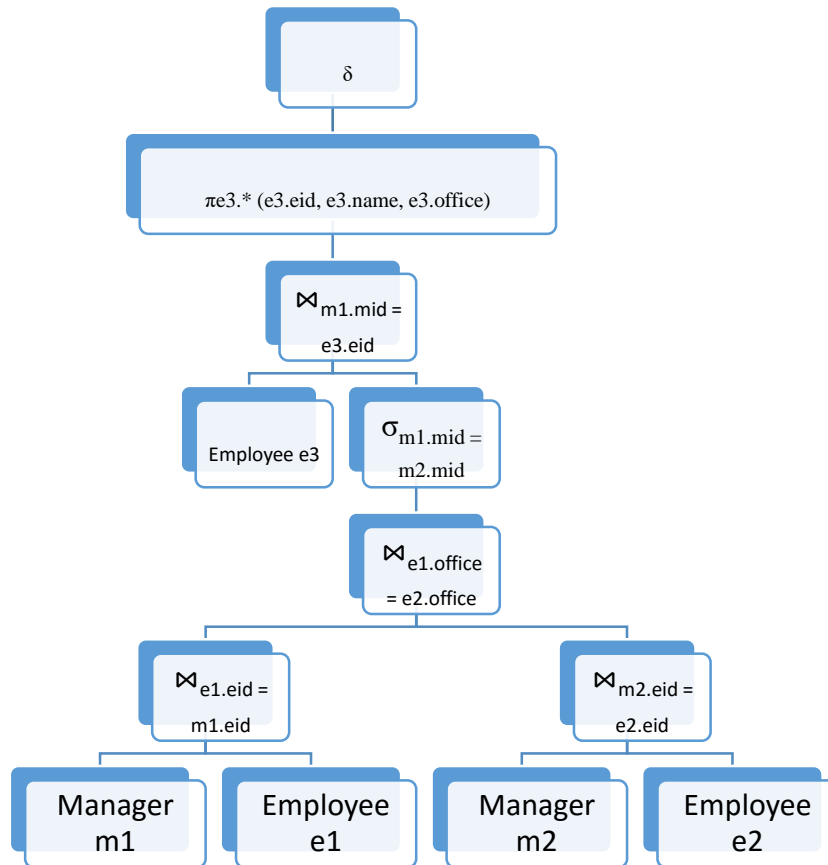
2. $\text{notMan}(x, y) \text{ :- employee}(x, y, _), \text{ NOT Manager } (x, _)$



3. $\text{Alice}(x) \text{ :- Employee}(x, \text{'Alice'}, _)$
 $\text{ManagerP}(x) \text{ :- Alice}(y), \text{Manager}(y, x)$
 $\text{Output}(y) \text{ :- ManagerP}(x), \text{Employee}(x, _, y)$



4. $\text{Man}(x) :- \text{Manager}(y, x), \text{Manager}(z, x), \text{Employee}(y, _, a), \text{Employee}(z, _, b), b = a$
 $\text{Output}(x, y, z) :- \text{Man}(x), \text{Employee}(x, y, z)$



5. $\text{Managers}(x) :- \text{Manager}(_, x)$
 $\text{NoMan}(x) :- \text{Employee}(x, _, _), \text{NOT Managers}(x)$
 $\text{Mans2}(x) :- \text{NOT NoMan}(y), \text{Manager}(y, x)$
 $\text{Output}(e, n) \text{ Mans2}(e), \text{Employee}(e, n, _)$

