jakedn , 209863000, jacob.ness@mail.huji.ac.il
DB ex3
.
Q1.
$AG \to CE$:
no, because $row_3(a_3, g_2, c_3, e_3)$ but $row_5(a_3, g_2, c_2, e_3)$ the c attribute differs!
$BE \to ACDG$:
yes , every row has a different tuple (b_i, e_j) so it holds
$D \to C$:
yes, we can see for every unique d_i there is one c_j
$CG \to AE$:
yes, we can see for every unique tuple (c, g) there is one tuple (a, e)
END Q1
.
Q2.
we will use the algorithm that we saw is equvelant to the closure ;
X=A :
we start with {A} from $A \to DC$ we add DC so we have {A,D,C}
and we dont get anymore attributes from functional dependances in F
so closure(X) = {A,D,C}
X=AB :
we now start with AB and again because of $A \to DC$ we add DC
so we have ABCDnow from $B \to E$ we add E to our set and thats it
(thats all we can add via the FDs)
so we have closure(X) = ABCDE
X=GE :
we start with the trivial set GE and now $G \to A$ so we add A and that
means because of $A \to DC$ we add DC and we are at ACDEG
so far now $E \to AB$ so we will add B to the group (we are at the max)
we get closure(X) = ABCDEG
END Q2