Information and Database Management Systems I

(CIS 4301)

Spring 2022

Instructor: Dr. Markus Schneider

TA: Kyuseo Park

Homework 4

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Pledge (Must be signed¹ according to UF Honor Code)

On my honor, I have neither given nor received unauthorized aid in doing this assignment.

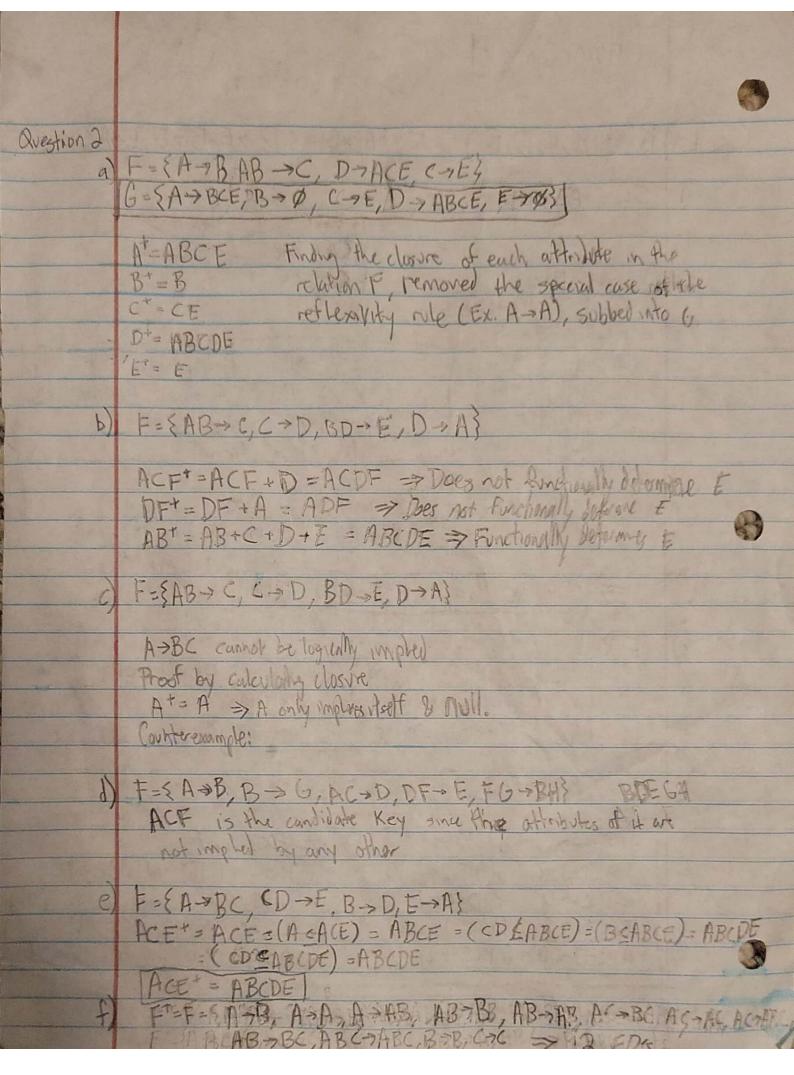
Student signature

¹Each student is obliged to print out this page, fill in the requested information in a handwritten and readable manner, make the handwritten signature, scan this page into PDF, and put this page as the first page of the PDF submission.

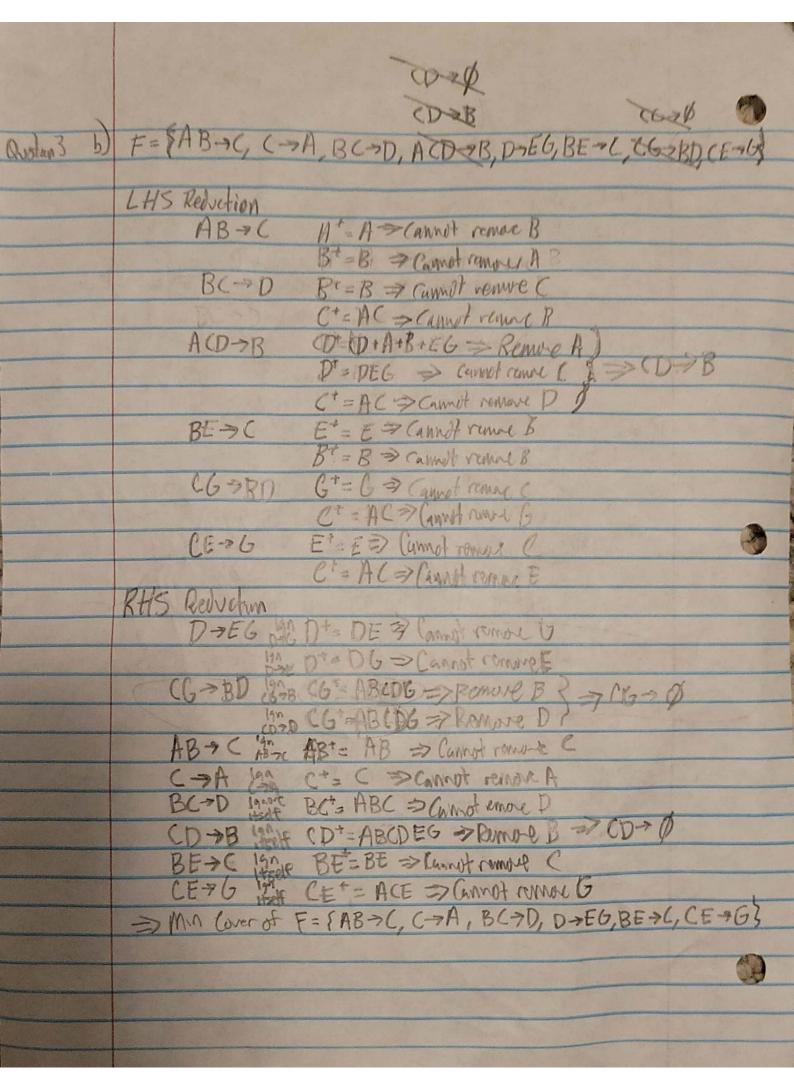
POLL HOLE MON ASTRA Homework 4 Chutes Rhubson QJa)R(A,B,C,D,E) F={A>BC, CD>E, B>D, E>A} 1. Show AC+BE A-BC GIVEN AGA-BEC Florward Atom Trans. Uccomo Previo A BOBC Simplesition ASB ADOE BC-A A>C E>B BC >E Composed FD

BBC >BE Augment B, dearlitt 8

A > B n AB > BE Pseudo transitude BADI BCAE AB> E ETA AC>BE Rout a Show B-RE EDUCT A CONT HEAD BONE If B>En WH A BOD the BOE -> Circular Logic, Mot valid FD F= FAB+ E, AC +F, BEF-D)
ABG > C +O 1St, 2nd +D3 BLABC-ABCEF -> Union 1st 1, 2nd FD3 ABC >BEF >D >ABC is candidate lex F= { AB->C, BC->D, ACD->B, D-> EF, BE->C} = BC ->EF BC > D A D > EF = ABC - ACD - OF ABC - D AB(C)+C n(A)BC+(A)D = ABC-SEF ABC >D O D > GF = BCE+ COPE or BCE+D BCOE>C OBC(E) +D(E) = ABCE - ADE or AREDD ABC(E)-D(E) (ABCE -> (A)D



Chrles Rhukm QUAM3 & F- {A -DE, BCE -> EG, E-> C, DG-EF F teft side reduction BCE -EG CET-CE = Cumpt strange B 3 BESTG BET = BCEG = Remove C B+ = B > Canada remove E DGAER 6+ 6 = 6 = 6 mot runte D => 1)6 = ER D'= D => Considerence 6 Right side Relichm BETEG Ignory BE+ BE+=BEC & Remore E > BE > 6 Grand ADD LATE ACE SCHOOL OWNER E Grand ATE AT SCORNER CONNER E DG TEF Igney DG TE DG DGF => Cannot renume E Inormy ExC Et & E > T Cannot remove C >> Minimal Cover of F 15 F=FA+DE BE->6, E>C, DE>ER



Hawrisok 4 Oholes Ruison AME AJEF A-4H F={A-BCD, AG-FF, AG-FH, CD-FG} Quarter LHS Robotion A = ABCDEFG = Remail) > A -> EF ACHEF A'- ABODEFG = Rence G >> A >+ AG ># Ct = C => Cannot remove b D'= D > Camot remove C RHS Rodreton 139 A'= ACDEF HG & Grand remail A-BCD HISC A - ABDEPH & Comment comment ADD AT ABCEFH => Consist romal) A->EF ASE AT- ABCOF HO SCHOOL MAN ES ASE F A+=ABCDE H76 > Bomby F CD=F6 12 CDG=CDG=Cantal cone F Dag CO's CD F => Carrent romand G (1) Am Cover of F = SA->BCD, A = E, A = A, (D = F6) Standard Form = {A>B,A>C,A>D, A>E,A>H, O>F F= (CF -> D. AE -> F. D-> A, AC -> B)

Step | State Attr: 0 Question 4 a) Coulidate Kon 5+02 Athronly on LHS: C, E Stp 3: Attronly on Rtls: B, Sty 4: Union of 182: CE Sto 5: CE'=CE = R Step 6: Attron both sites A. D. F Sty 7:ACE - ABCDEF = R CDET = ABODEF = R CEFTAROEF = R

