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CSC 453

B-3

1. Candidate keys = {ID}, {first, last}
2. R1(Id, first, last, team) and R2(id, salary, dept)

So, F = {id->first(1), id->last(2), first->id(3),last->id(4),last->team(5),id->dept(6),id->salary(7),salary->dept(8)} and then if we extrapolate that to R1 and R2, we get

R1 = {1,2,3,4,5} and R2 = {6,7,8} therefore decomposition is dependency preserving.

B-4

1. Is in 3NF form
2. Is NOT in 3NF form, AB is not super key
3. Is NOT in 3NF form, AC is not super key
4. Is NOT in 3NF form, A is not a super key