

Question#1 (3+2)

Consider the following relational schema

EmpProject(EID, EName, Age, Address, salary, bonus, PID, PName, hoursWorked)

And the following functional dependencies:

$EID \rightarrow EName$

$PID \rightarrow PName$

$EID \rightarrow Address$

$salary \rightarrow bonus$

$EName, Address \rightarrow Age$

$PID, SID \rightarrow hoursWorked$

- Find $(EID, PID)^+$.
- Is the combination (EID, PID) a super key for the given relation?

Question#2 (2)

$R(A, B, C, D, E)$

Primary Key = $(\underline{A}, \underline{C})$

$C \rightarrow E$

$A, B \rightarrow C, D, E$

$A, C \rightarrow B, D, E$

What is the highest normal form the R is in?

Question#3 (3)

$R(A, B, C, D, E)$

Primary Key = $(\underline{A}, \underline{B})$

$C \rightarrow B$

$A, B \rightarrow C, D, E$

$A, C \rightarrow B, D, E$

Convert R to BCNF.