

$R(ABCD)$

$A \rightarrow D$

$C \rightarrow B$

$AB \rightarrow D$

$AC \rightarrow D$

~~$AC \rightarrow B$~~

$CD \rightarrow B$

$ABC \rightarrow D$

key is

$A^+ = AD$

$B^+ = B$

$C^+ = C$

$D^+ = D$

$AB^+ = ABD$

$AC^+ = AC, D, B$

$AD^+ = AD$

$BC^+ = B, C$

$BD^+ = B, D$

$CD^+ = C, D, B$

key is

AC

$A \rightarrow D$ violates BCNF

$A^+ = AD$

$R_1(AD)$

$A \rightarrow D \checkmark$

$R(ABCD)$

$R_2(ABC)$

$C \rightarrow B$

$C \rightarrow B$ violates

$C^+ = CB$

key is AC

$R_{21}(CB)$

$R_{22}(CA)$

$(AD) (CB) (CA)$

$A \rightarrow D$

$C \rightarrow B$

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