

Dov Kassai

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Participation Exercise

$R = TMC$ $F = \{T \rightarrow C, MC \rightarrow T\}$

Decompose the tables in BCNF

none/left	Both	right
M	TC	

$\frac{M^+}{M} \Rightarrow$ is not a key

Keys = $\{MT, MC\}$

$\frac{MT^+}{MTC} \Rightarrow$ yes a key

$\frac{MC^+}{MCT} \Rightarrow$ yes a key

• Check if there is BCNF Violation:

T is not a superkey, so it is a violation

• Compute T^+ : $\frac{T^+}{TC} \Rightarrow$ violated FD is still $T \rightarrow C$

4) Decompose: $T \rightarrow C$ $[X=T, y=C, z=M]$

$R_1 = TC$
 $F_1 = \{T \rightarrow C\}$

$R_2 = TM$
 $F_2 = \{\}$

$Q = \{(TC, \{T \rightarrow C\}), (TM, \{\})\}$