

Exercises

Are the following schemas in BCNF? If not, decompose them into BCNF.

1. $R(A, B, C, D)$ with $AB \rightarrow C$, $C \rightarrow D$ and $D \rightarrow A$
2. $R(A, B, C, D)$ with $AB \rightarrow C$, $C \rightarrow D$ and $D \rightarrow A$
3. $R(A, B, C, D)$ with $B \rightarrow C$ and $B \rightarrow D$
4. $R(A, B, C, D)$ with $B \rightarrow C$ and $B \rightarrow D$
5. $R(A, B, C, D)$ with $AB \rightarrow C$, $BC \rightarrow D$, $CD \rightarrow A$, and $AD \rightarrow B$
6. $R(A, B, C, D, E)$ with $AB \rightarrow C$, $C \rightarrow D$, $D \rightarrow B$, and $D \rightarrow E$