Assignment 5: Dependency Theory

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D1 Reasoning with dependencies

1.
- Assume $AB \longrightarrow C, A \longrightarrow D$ and $CD \longrightarrow EF$
- Apply Augmentation on $AB \longrightarrow C$ with A to derive $AB \longrightarrow CA$
- Apply Augmentation on $A \longrightarrow D$ with C to dervie $CA \longrightarrow CD$
- Apply Transitivity on $AB \longrightarrow CA$ and $CA \longrightarrow CD$ to derive $AB \longrightarrow CD$
- Apply Transitivity on $AB \longrightarrow CD$ and $CD \longrightarrow EF$ to derive $AB \longrightarrow EF$
- Apply Reflection on $F \subseteq EF$ to derive $EF \longrightarrow F$
- Apply Transitivity on $AB \longrightarrow EF$ and $EF \longrightarrow F$ to derive $AB \longrightarrow F$
- Hence, $AB \longrightarrow F$