LET'S START WITH DBMS :)

Dependency Preserving decomposition

Dependency preserving decomposition ensures that the functional dependencies are preserved/maintained after decomposing a relation into two or more smaller relations.

Consider a relation R(A, B, C) with FD : A->B, B->C, find if its dependency preserving when divided into R1(AB) and R2(BC)

- R1(AB) : A → B
- R2(BC) : B → C

The decomposition is dependency preserving because the functional dependencies A → B and B → C are preserved in R1 and R2

LET'S START WITH DBMS :)

Dependency Preserving decomposition

Consider a relation R(A, B, C, D) with FD : A → B, A → C, C → D, find if its dependency preserving when divided into R1(A, B, C) and R2(C,D)

R1(A, B, C): A → B, A → C(Functional dependency preserved)
R2(C, D): C → D(Functional dependency preserved)

The decomposition is dependency preserving because the functional dependencies A → B and B → C are preserved in R1 and R2