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CSE301 – DATABASE

Normalization(Conts)

Find the Normal Forms: Exercises

- R(ABCDE), FD: {BC → ADE, D → B}
  - ✓ BC, CD are candidate keys
  - ✓ It is in 3NF. Because all LHS are not super key, as well as no partial or transitive FD's.
- R(ABCDEGHI), FD: {AB → C, BD → EF, AD → GH, A → I}
  - ✓ ABD is candidate key
  - ✓ It is in 1NF. Because AB → C is a partial dependency.
- R(VWXYZ), FD: {X → YV, Y → Z, Z → Y, VW → X}
  - ✓ VW, XW are candidate keys
  - ✓ It is in 1NF. Because in X → YV, {X → Y} is a partial dependency.

Find the Normal Forms: Exercises

- R(ABCDEF), FD: {ABC → D, ABD → E, CD → F, CDF → B, BF → D}
  - ✓ ABC, ACD are candidate keys
  - ✓ It is in 1NF. Because CD → F is a partial dependency.

- R(ABC), FD: {A → B, B → C, C → A}
  - ✓ A, B, C are candidate keys
  - ✓ It is in BCNF. Because all FD's LHS is a super key.

Find the Normal Forms: Exercises

- R(ABCDEF), FD: {A → BCDEF, BC → ADEF, DEF → ABC}
- R(ABC), FD: {AB → C, C → A}
- R(ABCDE), FD: {A → B, BC → E, DE → A}
- R(ABCDE), FD: {AB → CD, D → A, BC → DE}
- R(WXYZ), FD: {Z → W, Y → XZ, XW → Y}
- R(ABCDE), FD: {A → B, B → E, C → D}
- R(ABCDEF), FD: {AB → C, DC → AE, E → F}