

A close-up photograph of a person's hand holding a red spirit level. The level has a green bubble in the center of a glass vial. The background is blurred, showing a white surface and a red wall.

Tutorial: Normal Forms

Consider $R = \{A, B, C, D, E\}$ with $\Sigma = \{\{A\} \rightarrow \{A, B, C\}, \{A, B\} \rightarrow \{A\}, \{B, C\} \rightarrow \{A, D\}, \{B\} \rightarrow \{A, B\}, \{C\} \rightarrow \{D\}\}$

1. Is R with Σ in 2NF?
2. Is R with Σ in 3NF?
3. Is R with Σ in BCNF?
4. Create Your Own Example
 - (a) Invent a random R and Σ .
 - (b) Is R with Σ in 2NF?
 - (c) Is R with Σ in 3NF?
 - (d) Is R with Σ in BCNF?

References

- [1] S. Bressan and B. Catania. *Introduction to Database Systems*. McGraw-Hill Education, 2006.
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- [3] R. Ramakrishnan and J. Gehrke. *Database Management Systems*. McGraw-Hill, 2002.