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Database Modeling

1. A process for evaluating and correcting table structures to minimize data redundancies, thereby reducing the likelihood of data anomalies.
2. 1NF – First Normal Form – Table format, no repeating groups, and PK identified.
3. 2NF – Second Normal Form – 1NF & no partial dependencies.
4. 3NF – Third Normal Form – 2NF & no transitive denendencies.
5. BCNF – Boyce – Codd Normal Form – Ever determinant is a candidate key. ( Special case of 3NF.)
6. 1. Partial Dependencies.

C1 – C3

C2 – C4, C5

Transitive Dependencies

C4 – C5

* 1. Table 1

C1, C3

Table 2

C3, C4, C5

* 1. Table 1

C1, C2

Table 2

C2, C4, C5

Table 3

C4, C5

1. A partial dependency exists when there is a functional dependency in which the determint is only part of the primary key. 1NF
2. Update, Insertion and Deletion anomalies. By Normalizing the tables.
3. A transitive dependency exists when there are functional dependencies such that X = Y, Y = Z and X is the primary key.
4. A surrogate key is a system-defined attribute general created and managed via the DBMS. When the primary key is considered to be unsuitable for some reason, designers use surrogate keys.
5. Because a 2NF is when it is in 1NF, and it includes no partial dependencies; that is, no attributed is dependent on only a portion of the primary key.
6. Transitive Dependency.
7. I’d feel that all those attributes combining into the super key, would be way to much information contained in the Super key.
8. 3NF, 2NF