

NORMALIZATION

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1ST NORMAL FORM (1NF)

Requirements

- The Values in each column must be atomic (indivisible),
- Each value contains only a single value.

Actions

- Eliminate repeating groups in individual tables
- Create a separate table for each set of related data
- Identify each set of related data with a primary key



2ND NORMAL FORM (2NF)

Requirements

- Is in 1st Normal Form
- Reduce repeating information

Actions

- Create separate tables for values that apply to multiple records.
- Relate tables with a foreign key



3RD NORMAL FORM (3NF)

Requirements

- Is in 2nd Normal Form
- Values that are not part of a record's key are to be removed from the table.

Action

- Remove fields that are not dependent on the key



4TH NORMAL FORM (4NF)

Requirements

- It should be in 3rd Normal Form.
- It should have no multi-valued dependency

Actions

- Separate out non-trivial multivalued dependences



5TH NORMAL FORM (5NF)

Requirements

- It should be in 4th Normal Form.
- It should have no join dependency

Actions

- Remove join dependences to remove redundancy

